

**Impact of an Australian University's First Year Model and  
Block Mode Teaching on Student Academic Success,  
Satisfaction and Retention**

by

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## **Abstract**

In 2018, an Australian university implemented an educational reform to first-year undergraduate Higher Education (HE) through a First Year Model (FYM) that was the first of its type globally to improve first-year student success. The FYM incorporated the establishment of a dedicated First Year College (FYC) for commencing undergraduate students and the intensive Block Mode (BM) format of learning and teaching. The BM incorporated student-centred approaches to curriculum design and pedagogy, focused learning via one unit of study at a time, and active learning in small classes. In addition, the educational reform incorporated an enhanced overall first-year experience (FYE) through the complementary design of co-curricular programs and student support services to ease the transition to HE and promote success.

This doctoral study details the development and implementation of a research framework that examined this educational reform and its impact on first-year student academic success, satisfaction, and retention. The investigation considered the influences of the reform on the success of students from a range of equity group backgrounds. Firstly, an extensive literature review was undertaken to frame subsequent research activity. The subsequent research incorporated a mixed methods research design involving three studies that analysed quantitative and qualitative data.

The quantitative study (Study 1) utilised both institutional data and data from two Australian Government HE data sets. The study examined and compared variances in first-year student academic success, satisfaction, and retention between a traditional mode group (i.e., students who studied the year before the educational reform), and two groups whom each studied in the new model in the following two consecutive years. The quantitative analysis of these groups included multiple academic disciplines and

student equity groups. The results indicated that significant differences reflecting an improvement in academic success, satisfaction and retention were found across multiple variables by the second year of implementation. In addition, favourable and unfavourable variations were found in student retention during the first year of implementation. The results also indicated that the educational reform promoted the success of students from equity group backgrounds.

The qualitative studies (Study 2 and Study 3) extended the findings from Study 1 and progressed examination of the delivery mode through the comparison of data collected from interviews with University staff and students. These interviews explored the perspectives of first-year academic success, satisfaction, and retention for students in the FYM and BM through the participant's lived experiences, and also included perspectives from students who studied their first year in the traditional mode. The results of Studies 2 and 3 highlighted the factors influencing student success and revealed perspectives to enhance University practices that can further promote student success.

The research findings from Studies 1, 2 and 3 complemented the evidence, themes and perspectives that emerged from the literature review. These themes included student success in HE, first-year undergraduate education and transition, implications of intensive BM learning and teaching with global comparisons from different models, and student equity in Australian HE.

Outcomes of the three studies emphasise the importance of a coherent FYM with a student-centred FYE and BM curriculum design as an effective approach to first-year student success in HE. The findings also reinforce the BM as an effective learning and teaching approach for multiple academic disciplines to improve student outcomes, support the transition to HE, and promote the success of students from equity group

backgrounds. In addition, this research adds to the body of knowledge on HE models to promote first-year student success and expands the evidence base on the success factors for BM learning and teaching in HE. The major findings of this research prompted recommendations for practice and future research. Finally, this research adds new knowledge that can be considered for first-year undergraduate education, the FYE and intensive BM learning and teaching for large and diverse student populations in international contexts.

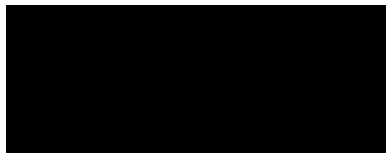
## **Student Declaration**

I, Naomi Dempsey, declare that the PhD thesis entitled ‘Impact of an Australian university’s First Year Model and Block Mode teaching on student academic success, satisfaction and retention’ is no more than 80,000 words in length including quotes and exclusive of tables, figures, appendices, bibliography, references, and footnotes. This thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this thesis is my own work.

I have conducted my research in alignment with the Australian Code for the Responsible Conduct of Research and Victoria University’s Higher Degree by Research Policy and Procedures.

All research procedures reported in the thesis were approved by the Victoria University Human Research Ethics Committee pertaining to the approved application HRE20-179.

Signature:



Date: 19 May 2023

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## **List of Abbreviations**

1B1	Semester 1 Block 1
1B2	Semester 1 Block 2
1B3	Semester 1 Block 3
1B4	Semester 1 Block 4
ABS	Australian Bureau of Statistics
ATAR	Australian Tertiary Admissions Rank
BIS	Business Intelligence System
BM	Block Mode
C	Credit grade
COVID-19	Coronavirus disease / pandemic
D	Distinction grade
DBC	Discipline-based College
DESE	Department of Education, Skills and Employment (became the Department of Education from 1 July 2022), Australian Government
EFTSL	Equivalent Full-Time Study Load
EOI	Expression of Interest
F	Fail grade
FYC	First Year College



FYE	First Year Experience
FYM	First Year Model
HD	High distinction grade
HE	Higher Education
HEI	Higher Education Institution
HES	Higher Education Statistics
HESP	Higher Education Standards Panel
IBG	Initial Block Group
LSES	Low socio-economic status
NESB	Non-English speaking background
NHMRC	National Health and Medical Research Council
OECD	Organisation for Economic Co-operation and Development
P	Unit pass grade
pp	Percentage point
QILT	Quality Indicators for Learning and Teaching
RI	Retention Indicator
SBG	Subsequent Block Group
SCM	Southern Cross Model
SEIFA	Socio-Economic Indexes for Areas
SES	Student Experience Survey

SESR	Student Experience Survey Result
SEU	Student Evaluation of Unit
SEUR	Student Evaluation of Unit Result
SMS	Student Management System
SPSS	Statistical Package for the Social Sciences
SWD	Student/s with a disability
TEQSA	Tertiary Education Quality and Standards Agency
TMG	Traditional Mode Group
TQI	Teaching Quality Indicator
USG	Unit of Study Grade
USG-GD	Unit of Study Grade – Grade Distribution
USG-M	Unit of Study Grade – Mark
USG-P/F	Unit of Study Grade – Pass / Fail
VU	Victoria University

Abbreviations are also used as pseudonyms for research participants, as follows:

STF	Pseudonym for staff research participants (e.g., STF_01, STF_02 ... STF_16))
STU	Pseudonym for student research participants (e.g., STU_01, STU_02 ... STU_17)

## **Chapter One: Introduction**

### **Background**

The importance of students succeeding in higher education (HE) is acknowledged as a critical focus area for success, a higher order responsibility of education institutions worldwide, and continues to be discussed and debated within the literature (Leece et al., 2022; Naylor, 2017; van der Meer et al., 2018). Complexity exists in identifying a common conceptualisation and definition of student success due to sociocultural and contextual factors, the individual beliefs and expectations that students have about their success (both pre- and post-study), and an increasingly diverse HE student population due to the influences of mass participation (Naylor, 2017; Rubin et al., 2022; Thomas et al., 2021; Wood & Breyer, 2016). Therefore, supporting students to succeed academically, remain in study, and complete their qualification while being satisfied with their overall experience, are ongoing global challenges faced by the HE sector (Goode et al., 2022).

In the context of first-year HE students, universities must understand their commencing cohort's needs and continually shape and innovate their educational model to ensure students have a successful transition into, and journey through, the first year of study. A strategic approach to first-year curriculum design can engage students, enhance their FYE, provide a sense of purpose towards their education, and set students up for future success in HE (Bovill et al., 2011; Lizzio, 2006). While not a new development in HE, one strategic approach to undergraduate learning and teaching that is becoming an increasingly popular alternative to the traditional mode is the block mode (BM) format which incorporates highly intensive teaching practices (Buck & Tyrrell, 2022; Davies, 2006; Mitchell & Brodmerkel, 2021). It is claimed that BM

learning environments promote student success through engaged learning and teaching, with active learning facilitated in small classes through a focused ‘immersive scheduling’ model that typically schedules one unit of study at a time (Buck & Tyrrell, 2022; Goode et al., 2022; Mitchell & Brodmerkel, 2021; Turner et al., 2021). Practices to holistically embed and sustain a new educational model for an entire student population, such as first-year undergraduates, necessitate that the approach must go beyond tinkering at the edges of curriculum design, pedagogy, and student support services (Kift & Nelson, 2005). Achieving positive outcomes requires an institution to demonstrate the capacity and capability to transform education for students through pedagogical and organisational change (Robinson, 2011). This may consequently generate some constraints and challenges (such as staff resistance to change, investment costs, administration) that need to be overcome.

There is a dearth of research literature related to any significant educational reform of first-year undergraduate education incorporating intensive BM mode learning and teaching. The literature that does exist highlights the limited extent to which reforms of the first-year curriculum have been undertaken for large student populations. Examples of previous research studies have focused on the areas of student transition, academic success, student belonging, academic and study skill development, targeted student engagement strategies, and individual learning and teaching strategies (Bovill et al., 2011; Harris & Barnett, 2014; Krause & Coates, 2008; Naude et al., 2016; Nelson et al., 2014). Evidence from students articulating how the first-year curriculum influences their overall experience and success is also lacking (Ambler et al., 2021). In addition, the need for the HE sector to be informed by further investigation of the application of BM and intensive formats of learning and teaching has been acknowledged in the literature (Davies, 2006; Dixon and O’Gorman, 2020; Goode et al., 2022; Mitchell &

Brodmerkel, 2021; Nerantzi & Chatzidamianos, 2020; Winchester et al., 2021). For example, Winchester et al. (2021) recommended that further research be conducted on student success for those individuals from equity group backgrounds across a wider range of academic disciplines. The findings of this research will broaden the evidence base on first-year models of HE, BM learning and teaching and the FYE.

This research aims to examine the impact and influences of first-year curriculum reform on student academic success, satisfaction, and retention across multiple academic disciplines and for students from a range of equity group backgrounds. This research will demonstrate the outcomes of an educational reform beyond the first year of implementation and present the outcomes from multiple years. Institutional data and the rich lived experiences of staff and students will provide a valuable and deep understanding of the influences, benefits and constraints of a whole-of-institution curriculum change and of BM learning and teaching. In addition, this research will provide insight into the definitions, perspectives and personal insights of first-year students associated with student success, their expectations as successful learners in HE and their FYE. Unexpectedly, the COVID-19 pandemic and this research commenced at around the same time. Due to these events, students shared additional perspectives on their experiences of BM learning and teaching that had been adapted from its original format (e.g., on-campus and in-person) in their future course years. These commentaries are presented in the results and major findings.

## **Research Context**

The research was conducted at Victoria University (the “University”) in Melbourne, Australia. The University is one of 37 public universities in Australia and a dual-sector provider of HE and vocational education (Universities Australia, 2020; Victoria

University [VU], 2021). The University has six campuses in Melbourne, a campus each in Sydney and in Brisbane and an online course offering via VU Online, collectively delivering education to over 40,000 international and domestic students (VU, 2023b). The University has one of the highest proportions of students from equity group backgrounds in Australian universities (Jackson et al., 2022). This research focused on the years 2017 through to 2019, when the University's student population was diverse, with a large percentage of students from low socio-economic status (LSES) backgrounds. In a 2022 report, the percentage of students from LSES backgrounds was reported as 24.82% of undergraduate students, well above the sector average of 16.97% (Harvey et al., 2022). The University reports having a diverse student population (VU, 2023b), with 47% of its HE students being the first in their family to undertake a degree qualification, over 30% of its domestic students born in another country, and 49% of its students being from a non-English speaking background (NESB).

In 2018, in response to major changes and challenges experienced by the institution (including student success rates and a diverse cohort of students from equity group backgrounds), the University replaced the traditional semester-mode of learning and teaching in first-year undergraduate courses with a First Year Model (FYM) and intensive BM teaching format (Howe et al., 2019; Konjarski et al., 2023; Oraison et al., 2020, VU, 2023c). The educational reform created a "tailored First Year Model emphasising connections, community and a sense of belonging to the university" (VU, 2023c) for commencing first-year students. In addition, the University claims to be the first Australian university to use BM to build degree programs from units of study undertaken in sequential blocks across all undergraduate courses (VU, 2023c). Completing one unit of study at a time, students participate in a four-week 'block' teaching period that consists of three teaching sessions each week that are each

conducted over three hours in small classes, and assessment is completed within the four-week block (VU, 2023a).

The FYM and BM were comprehensively implemented for a large first-year student population of over 4,000 students (i.e., with equivalent full-time student load (EFTSL)) and across multiple academic disciplines for 160 units of study that were consolidated and operationalised within a dedicated First Year College (FYC) (Samarawickrema & Cleary, 2021; Oraison et al., 2020). The first-year units of study associated with undergraduate courses were redesigned for BM curriculum and pedagogy, and co-curricular programs and student support services were also redeveloped to complement BM and to promote student success (McCluskey, et al., 2019; McCluskey, et al., 2021). Howe et al. (2019) highlighted that the multi-disciplinary FYC was established to lead the change with a focus on student-centred learning and transition pedagogy (Kift, 2009; 2015), and a new leadership and teaching staff team were engaged to implement the FYM and BM. As an outcome of this change, all other units of study for the subsequent course years remained in the six existing Discipline-based Colleges (DBC). In the previous traditional mode of HE delivered in 2017 and prior, students commenced and completed their studies within their DBCs. The “success of the First Year Model” (Howe et al., 2019, p. 1) was reported as a catalyst that led to educational change and wider implementation of the BM across all undergraduate units of study and courses at the University (Howe et al., 2019; Konjarski et al., 2023).

### **Research Aim**

The overall research aim was to explore the overall phenomena of the FYM and BM across multiple academic disciplines and student equity groups. This study examined the aspects of the FYM and BM change to learning and teaching that influenced student

academic success, satisfaction, and retention of first-year undergraduate students and for those students from a range of equity group backgrounds.

A research framework was developed to examine the first-year educational reform (see Appendix A). The research framework incorporated a mixed methods approach due to the complex nature of this educational reform across multiple academic disciplines and student cohorts. The research aimed to expand the evidence base on the success factors of the FYM and BM learning and teaching to add new knowledge that can be considered for the application of this educational reform for large and diverse student populations in international contexts.

### ***Research Sub-aims***

The research framework was used to examine three research sub-aims that addressed the overall research aim and explored the overall phenomena of the FYM and BM across multiple academic disciplines and student equity groups. The three research sub-aims are detailed below.

#### **Sub-aim 1**

Determine the aspects of the FYM and BM that have impacted academic success for first-year undergraduate students across multiple academic disciplines and student equity group cohorts, compared to the traditional mode.

#### **Sub-aim 2**

Evaluate the influence of the FYM and BM on student satisfaction for first-year undergraduate students across multiple academic disciplines and student equity group cohorts.



### **Sub-aim 3**

Determine the aspects of the FYM and BM that have had the most impact on first-year undergraduate student retention across multiple academic disciplines and student equity group cohorts, compared to the traditional mode.

### **Thesis Structure and Chapter Organisation**

This thesis includes eight chapters which are each detailed below.

Chapter Two contains a review of the relevant literature. This chapter contains a critical analysis of relevant Australian and international literature on HE theory, practice, and policy in the context of first-year undergraduate education, modes of HE delivery, and broad definitions of student success. This chapter examines the national and international research and literature that has been published around the FYE in HE and intensive modes of education to demonstrate the understanding of current research in relation to the FYM and BM. A literature search to discover comparable studies with the FYM and BM was also performed. Furthermore, consideration of the literature related to HE students from equity group backgrounds is also explored. The findings of the literature review informed the design of the three studies conducted for this research (see Chapter Three), and guided the discussions for each of the studies (see Chapters Four, Five and Six), the major findings (see Chapter Seven), the summary, recommendations and conclusion (see Chapter Eight).

Chapter Three details the methodology and research design used to investigate the overall research aim and the sub-aims. This chapter presents the research framework developed for the mixed methods research, each of the three studies and its purpose, the data sources framework, definitions, data criteria, data access and targeted sampling

procedures, a summary of data sources for the target population and sample, ethical considerations, and positioning of the researcher.

Chapter Four presents the quantitative study (Study 1). This chapter details the specific methods and procedures used for Study 1. The overall research aim and the sub-aims are addressed in the quantitative data results that used institutional data and Australian Government data sets, and through a discussion on the research findings in consideration of the relevant literature.

Chapters Five and Six present the qualitative studies (Study 2 and Study 3, respectively). These chapters detail the specific methods and procedures used for each qualitative study. The overall research aim and the sub-aims are addressed in the qualitative data results drawn from the lived experiences and perspectives of staff (Study 2) and students (Study 3), and through a discussion of the research findings in consideration of Study 1 and the relevant literature.

Chapter Seven examines the integrated findings of Study 1, Study 2 and Study 3 and presents the major findings in a general discussion to address the overall research aim and the sub-aims. The limitations of this research, and those limitations specific to the quantitative and qualitative studies, are explored in consideration of the overall research aim, the sub-aims and the research design. The reflections of the researcher at the conclusion of the research activities are also presented in this chapter and consideration given to the statements on positionality of the researcher from when the research commenced (see Chapter Three).

Chapter Eight summarises the findings of this research associated with the overall research aim, and presents the recommendations for practice and future research that are drawn from the major findings (see Chapter Seven). The conclusion drawn from the

research findings is presented and highlights the significance of this research and its contribution to knowledge and research on HE models for first-year undergraduate student success and intensive BM education for large and diverse student populations.

## **Chapter Two: Literature Review**

This chapter critically analyses relevant Australian and international literature on HE theory, practice, and policy in the context of first-year undergraduate education, modes of HE delivery, student success and student equity. Literature that pertained directly to first-year pedagogy, curriculum, and student transition in undergraduate education was reviewed. Research concerning intensive delivery mode has been reviewed to provide a context for BM education and the implications for universities implementing curriculum and organisational change. Definitions of student success are explored in this literature review due to the complexity and array of perceptions associated with this topic in HE. In addition, the key elements of student success relevant to this research's overall research aim and sub-aims (i.e., academic success, student satisfaction and student retention) have been included. Additionally, a review of the literature on student equity in HE provides further alignment with the overall research aim.

The exploration of the literature provided a foundation to compare and contrast existing knowledge, research and practice to identify evidence, themes and perspectives in support of the case to undertake the research. This critical analysis and discussion of the literature aligned to the overall research aim and sub-aims identified the gaps in existing research to locate this research, guide the methodology and reinforce the uniqueness of this research (Barron, 2006; Shahsavar & Kourepaz, 2020).

Relevant literature is further interpreted, contrasted, and compared throughout each chapter of this thesis. Herein, throughout this thesis, the term 'teacher(s)' is used rather than 'academic' or 'lecturer' to intentionally foreground teaching (Burke et al., 2016) and use a term more appropriate to the format of BM education.

## Higher Education

HE serves many vital roles for society (Wood & Breyer, 2016). These roles include educating communities and workforces to support future economic and employment growth, addressing global challenges (environmental, cultural, and economic) through education and research, and engaging with industry, community, and businesses to innovate and solve complex problems (Department of Education, 2023a; Mader et al, 2013; Wood & Breyer, 2016). Globally, UNESCO (2023) report that approximately 235 million students are enrolled in universities worldwide, and over the last 20 years this number has more than doubled, with participation expected to continue expanding. In addition to growth in participation rates, HE faces increasing globalisation that requires universities to nurture graduates so they are prepared for and capable of succeeding in a globalised world of work (Dauber & Spencer-Oatey, 2023). Over 6 million students are reported to be undertaking education abroad (UNESCO, 2023).

Mintz (2021) argues that neoliberalism in HE has contributed to education now being perceived as a “commodity to be used for competitive advantage in the labor market” (p. 85) in a global marketplace rather than the former knowledge acquisition model in education. Furthermore, neoliberal globalisation can impact the current HE landscape by creating a marketplace that considers students as customers, requiring institutions to be more efficient, accountable and market-oriented (Brooks et al., 2020; Mintz, 2021) in delivering outcomes to students, such as academic success, increased support in study, satisfaction with their overall education experience, and graduate labour market outcomes.

In recent years, the HE sector has also experienced disruption on a global scale due to the COVID-19 pandemic. As a result, universities have increased their online education offer beyond what was previously available to students and accelerated online

and blended learning, which has improved access to education and is one way in which participation has been equitably widened (Stone et al., 2021; UNESCO, 2023).

Additionally, the introduction of online learning modes as a tactical response to pandemic conditions has now drawn online education into the core of university learning and teaching (Bebbington, 2020), influencing the future of HE through the prominence of student preferences identified during the pandemic.

In Australia, where this research was conducted, participation in HE is reported to have grown in the past half-century by 34% in the transition from ‘elite’ to ‘mass’ participation, with concerns that graduates are not well matched to future employers’ needs (Moodie, 2022). Major developments in Australia’s HE system have occurred over the last 15 years. These developments include the introduction of an accessible and demand-driven funding system that has stimulated mass participation, technological changes, and changes that address the needs and expectations of new generations of first-year students relative to the role that university plays in their lives (Baik et al., 2015; Department of Education, Employment and Workplace Relations, 2009; French et al., 2017). International education is reported to be Australia’s third largest export (Ernst & Young, 2018), with Australia’s consolidated private and public investment in tertiary education institutions (1.88% as a share of Gross Domestic Product) above the Organisation for Economic Co-operation and Development (OECD) average (1.43%) and the sixth highest after the US, Chile, Canada, UK, and Norway (Universities Australia, 2022). As a wealthy country, private investment in Australian tertiary education institutions is ranked fourth out of 37 countries worldwide while Australia’s public investment was ranked amongst the lowest (ranked 31 out of 37 countries).

Australian universities are established under their own legislation, self-accredit their courses and degree programs, and deliver both teaching and research (Universities

Australia, 2023). In the current context of the Australian HE sector, imminent change is expected in response to the national discussion taking place to establish an ‘Australian Universities Accord’ that seeks to improve the quality, affordability, accessibility and sustainability of HE for the sector and the nation (Department of Education, 2023a).

### **Student Equity in Australian Higher Education**

It is evident from the literature that the Australian HE sector has focused on equity strategies and changes to address the diversity in the student population due to widening participation and internationalisation; by continuously improving the frameworks to evaluate the effectiveness of targeted equity funding (Department of Education, Skills and Employment [DESE], 2021; French et al., 2017; Walker-Gibbs et al., 2019; Zacharias, 2017). The Australian Government reported overall HE participation rates of students from equity group backgrounds in 2021 as 17% for students from LSES backgrounds, 9% for students with a disability (SWD), and 2.4% for First Nations Australians (Department of Education, 2023a). While NESB students were not reported for the same year, Australia’s international student enrolments between 2002 and 2019 increased by 253%, represented by students from over 190 countries.

Prior to COVID-19, Koshy’s (2020) report for the National Centre for Student Equity in Higher Education on student equity participation trends in Australian HE from 2014 to 2019 highlighted an 8.4% growth amongst domestic undergraduate enrolments. This growth equated to an increased headcount of 765,594 undergraduate students in Australian universities. The participation rates of students from equity group backgrounds within the domestic undergraduate enrolments was found to have increased for students from LSES backgrounds, SWD and First Nations (16.1%, 44.4% and 36.1%, respectively), while NESB student numbers declined by 2.6%.

The abovementioned growth rates indicate the progress made to increase HE access and participation for students from equity group backgrounds. First Nations students and SWD represented the highest growth during this period. First Nations students in Australia are reported to have an average annual enrolment growth rate of 7.6% in HE from 2008-2020 (Universities Australia, 2022), however, “enrolments remain well below population parity” (Universities Australia, 2022, p. 104). SWD have been reported as having a historically high level of participation in Australian HE, accounting for 7.7% of domestic undergraduate students (Koshy, 2020) and 9% of all HE students (Department of Education, 2023a). This proportion of HE SWD may also signal the changing equity trend in Australian HE, with students increasingly willing to self-identify and report their disability (Brett, 2016) and receive support. While the barriers to participation for this cohort have been reduced, SWD can experience additional challenges in HE due to the disadvantage and exclusion they experience because of their disability (Brett, 2016; Collins et al., 2019). Research studies (Collins et al., 2019; Pitman, 2022) into inclusion and support for SWD to succeed in Australian HE reported that this cohort’s national averages for success, retention and completion lag the national averages and that inclusivity measures need to go beyond the student-level and consider an entirely inclusive education experience.

As student equity in HE improves, students from these diverse backgrounds are better able to participate in HE and achieve success. Due to the widening participation of students from a range of equity group backgrounds, the positioning and measuring of equity as an essential property of determining the quality of the university experience has been recommended in Australia as the country approaches universal participation levels (Brett & Harvey, 2017).



As Engstrom and Tinto (2008) stated, “access without support is not opportunity” (p. 50). Students entering HE from non-traditional pathways, with a range of different learning needs, require universities to innovate, improve and change learning and teaching to remove barriers to their student success (Department of Education, 2023a; Dixon & O’Gorman, 2020; Kember et al., 2021; Li & Carroll, 2020; Rubin et al., 2022). Students themselves have added commitments such as family and work responsibilities that leave them unable to undertake full-time study, with the added liability for university fees forcing many students to manage the competing demands of work, family, and study (Bowl & Bathmaker, 2016; Kember et al., 2021; Stone et al., 2021). In their study that examined the experiences of first-year students entering university with a low Australian Tertiary Admissions Rank (ATAR), Baik et al. (2019) found that these students were likely to be from multiple equity groups, less prepared for HE, less academically engaged and prepared, and less able to cope with study – all of which leads to an increased risk of attrition. Universities must create the right conditions for all students to thrive and ensure that the support provided to the increasing number of students participating from equity group backgrounds translates into student success in HE (Engstrom and Tinto, 2008).

### **Student Success in Higher Education**

The conceptualisation and definition of student success in HE have multiple dimensions and are associated with sociocultural and contextual factors (Rubin et al., 2022). Most universities recognise that the definition of student success goes beyond good academic grades for units of study and encompasses students’ individualised beliefs around success and their outcomes both during their studies and post-study (Naylor, 2017; Thomas et al., 2021). Conceptualisations of student success, as held by students at different stages of their journey, are embraced by many universities that

understand the need to facilitate enhanced success outcomes for an increasingly diverse student population (Thomas et al., 2021; Wood & Breyer, 2016). Elements of student success can include a student's satisfaction with their education and wider university experience, their engagement socially and academically, their self-efficacy and their ability to persevere to remain in study and successfully achieve their qualification (Naylor, 2017; Tinto, 2017b). Institutional commitment to student success and embedded success strategies (Wood & Breyer, 2016) has been partly attributable to the influence of mass participation and the acknowledgement that in addition to access to education, disadvantaged students from equity backgrounds require adequate support to have the opportunity to succeed (Devlin, 2013).

Currently, in Australia, HE “student success is very much a public debate” (Leece et al., 2022, p. 1) due to a range of pressures and influences that bring complexity and change for universities to navigate. The focus and changing nature of student success is influenced by many factors, which include widening participation, the impacts of COVID-19, digital transformation of learning and teaching, labour market influences, and the changing needs and expectations of students themselves, which include a greater desire for choice and for a positive, student-centred experience (Department of Education, 2023a; Leece et al., 2022). The following sections discuss three elements of student success aligned with the research aims: academic success, student satisfaction and student retention.

### *Academic Success*

The term ‘academic success’ is considered one of the most widely used and nebulous concepts in HE research and assessment, with ambiguous definitions due to the varying perspectives of students, governments, and educational environments (O’Shea, 2021; York et al., 2015). The Australian HE sector’s formal measure is associated with

academic performance (i.e., students passing and completing units of study). Overall success rates for institutions are measured by academic performance and compare the actual EFTSL for passed units of study divided by all attempted units of study (i.e., passed, failed and withdrawn) (Department of Education, 2023c). From their analytic literature review on the definitions and measurements of academic success in the US, York et al. (2015) highlighted that the literature relies on the use of grades and/or grade point averages for measurement scales to assess academic success. They also highlighted that the term can be a “catchall phrase encompassing numerous student outcomes” (York et al., 2015, p. 1). From a student’s perspective, academic success is also related to the positive experience they have at university beyond attaining good grades – it is the outcomes students achieve that they consider to “really count” (Coates et al., 2016, p. 8). These outcomes can include passing units/subjects, achieving good grades, completing a degree, personal skill development and employment outcomes (Coates et al., 2016; Walker-Gibbs et al., 2019).

Complexity exists within students’ perceptions of success, how students relate success within the context of their own lived experience and the variances in their education environment (O’Shea, 2021; Rubin et al., 2022). One example of the contextual and nebulous nature of the term ‘academic success’ is shown in Naylor’s (2017) survey findings for student conceptions of student success, based on the responses of approximately 200 first-year Health Sciences degree students in Australia. The study found that these students considered “completion and achievement to be essential hallmarks of university success” (Naylor, 2017, p. 15), emphasising the importance of academic performance for this cohort and their context. In comparison, a qualitative UK study (Cachia et al., 2018) that undertook focus groups with sixteen undergraduate Psychology students found that these students defined academic success

as the accomplishment of the learning process, gaining subject knowledge, and developing employability skills.

In contrast to these two studies, Rubin et al. (2022) reported different student perspectives from their qualitative study based on interviews with 72 Australian students from LSES backgrounds. This study found that students from LSES backgrounds consider the term academic success to include aspects such as personal growth and development, flexibility to try different subjects that confirm their aspirations, the achievement of personal goals and fulfilment (e.g., gaining work), and the opportunity to contribute meaningfully to the community. These findings demonstrate the range of contextualised concepts of academic success among different student cohorts. Rubin et al. (2022) highlighted that academic success can be “weaved throughout the university experience rather than conceived of narrowly in relation to grades” (p. 51). Finally, it should be noted that the definition is continually evolving for different cohorts and educational contexts.

### ***Student Satisfaction***

Student satisfaction is a “complex phenomenon” (Hornstein, 2017, p.4), which is influenced by many variables. Santini et al. (2017) stated that the concepts associated with HE student satisfaction are vast and that studies on the topic appear to be “fragmented due to the conceptual breadth of empirical findings resulting from different contextual and methodological approaches” (p. 2). Over recent years, lenses used to research student satisfaction have led to publications related to the impacts of COVID-19 world-wide and how satisfied students are with adaptations made to minimise disruption to their learning (e.g., online and remote learning and teaching). While these publications are essential, the literature used in this review focuses on the broader construct of student satisfaction relevant to the research aims of this research.

Today's universities operate with consumer models in an intensely competitive and globalised HE market (Senior et al., 2017; Turkyilmaz et al., 2018). Therefore, for universities to best attract and retain students, they must examine student perceptions of their educational experiences to understand their needs and expectations and continually monitor the congruency between institutional offerings and student expectations (Cheng et al., 2016; Elliott & Shin, 2002; Schertzer & Schertzer, 2004; Senior et al., 2017). To achieve this monitoring, a complex array of surveys exists internally and externally to HE institutions to measure and evaluate the multi-faceted aspects of student satisfaction (Dixon & O'Gorman, 2020). The key aspects that institutions and governments evaluate include teaching and subject quality, learner engagement, overall student experience, student outcomes (during and post-study), support services, skills development, learning resources and the learning environment (Biswas et al., 2022; Hornstein, 2017; Leece et al., 2022; Quality Indicators for Learning and Teaching [QILT], 2022). The most important determinants of student satisfaction can depend on factors such as the educational context, the research question or the aspect of satisfaction interrogated (e.g., study experience in a unit) and the rationale for why this aspect was chosen. For example, Hornstein (2017) in Canada reported that teacher characteristics and performance are among the most important determinants of HE student satisfaction.

The literature demonstrates diversity in studies and in constructs of student satisfaction. For example, Trowler (2010) in the UK reported that engaged students with robust relationships at university form favourable outcomes for satisfaction. Tessema et al. (2012) in the US examined the extent to which a series of academically related factors affected overall positive satisfaction with curriculum. Survey data from over 5,200 respondents across a period of nine years (2001-2009) revealed academically

related aspects of student satisfaction that included quality of instruction, academic advising, overall college experience and preparation for a career.

In Australia, from their study of over 3,500 survey responses across 11 fields of education in 13 Australian public universities, Krause and Coates (2008) reported that “helpful course and subject advice is key” (p. 500) to enhancing the successful HE transition and satisfaction of first-year students. Furthermore, they reported that students’ perceptions of their learning environment and the favourable characteristics of academic staff have the most “profound influence on student satisfaction and sense of belonging in the learning community” (Krause & Coates, 2008, p. 501). These characteristics include enthusiasm, an interest in students, capability, empathetic behaviours, and feedback on student progress. Hoffman et al. (2002) considered the related concept of ‘a sense of belonging’ to correlate highly with student satisfaction from a “subjective sense of affiliation and identification with the university community” (p. 228) formed by students that promoted their commitment to the institution and retention in study.

The aspects discussed above that influence student satisfaction demonstrate some of the wide-ranging variables within HE that can contribute to student satisfaction, and those aspects that may be evaluated by institutions as determinants of satisfaction. On this basis, evaluating student satisfaction can be a powerful tool for universities to understand their students’ needs and expectations at numerous stages of those students’ learning experiences. Knowing and understanding student satisfaction levels across several variables is important, but “identifying the factors and the extent to which they affect students’ satisfaction with major curriculum” (Tessema et al., 2012, p. 41) is regarded as critical to the viability of universities. Biswas et al. (2022) stated that when students provide positive evaluations of their satisfaction, “cascading effects” (p. 8) are

found in other areas of student success, including student retention, which is discussed next.

### ***Student Retention***

Student retention is considered one of the measures of student success by the Australian Government and is calculated as the proportion of students who return to university to continue their studies after their first year of study (Department of Education, 2023b). The definition and measures of student retention in the US and UK (i.e., ‘continuation’) are comparable with those in Australia (Higher Education Statistics Agency, 2023; National Center for Education Statistics, 2023). The consequences of attrition in HE were reported by Kember et al. (2021) for students as having “social, psychological and economic downsides” (p. 258), with additional impacts on universities in relation to reputation, viability and financial sustainability.

There are a plethora of variables associated with influencing positive rates of student retention in the literature. The Australian Government (HESP, 2017) stated that, since the 1950s, their reviews of student attrition consistently reveal the key drivers to include teaching capability, the learning environment, lack of student engagement and student support and individual/personal factors of students (e.g., financial, health, life events). Some of the more prominent variables that influence student retention reported in the wider literature (Ahn & Davis, 2020; Coates, 2007; Kahu et al., 2022; Tinto, 2009; Tinto, 2017b; Trowler, 2010; Zepke, 2021) include the promotion of student learning, student engagement (academic and social), a sense of belonging (interpersonal and academic), and persistence. However, reasons for student attrition are varied, and the specific set of variables considered most important to mitigate attrition are ambiguous because of contextual factors related to individual students, institutions, and their communities (Kahu et al., 2022; Zepke, 2021).

‘Student engagement’ is one of the factors most commonly associated with positive student retention rates. Based on evidence found in four international research studies across the US, Australia, the UK, and New Zealand that offered conceptual and empirical evidence supports the proposition, Zepke (2021) stated that “student engagement is key to retention and success” (p. 80). Similar to the term ‘student retention’, student engagement also entails many facets and mechanisms with no single agreed underpinning conception or theory (van der Meer et al., 2018), and both student and institutional factors ultimately influence engagement and therefore retention.

Individual student factors for student engagement can include a student’s motivation and academic engagement with their learning, self-efficacy and determination, and participation in co/extra-curricular programs and activities, while institutional factors can include the promotion of active learning, peer learning and constructive feedback for students (Kahu, 2013; van der Meer et al., 2018; Zepke, 2021). Kahu and Nelson (2018) further added that “individual student engagement occurs dynamically within an educational interface at the intersection of the student and their characteristics and background, and the institution and its practices” (p. 59), with how students experience this educational interface having an impact on their retention.

That the interconnectedness of multiple factors and concepts intrinsically work together to promote student retention (e.g., student engagement) is demonstrated in the literature. Tinto (2009) stated that “student learning is the key to student retention” (p. 2) and that the educational settings that involve academics in all aspects of student learning and advising critically influence improvements to student retention rates. Furthermore, Tinto (2017) claimed that the subject material learnt by students needs to be relevant and considered of adequate quality by them to encourage their engagement, motivation, and persistence in study. Kahu et al. (2022) added that interpersonal and



suitable institutional support is required to retain students throughout their studies and that “belonging is theoretically linked to student engagement, also long recognised as critical to student success” (p. 11).

A ‘sense of belonging’ through academic and social engagement and connectedness with the university experience has been highlighted in HE research studies (Ahn & Davis, 2020; Kahu et al., 2022; Nelson et al., 2009) as having a positive influence on student retention. The development of a sense of belonging is also identified as the key to supporting student persistence and considered critical for first-year student transition to HE (Tinto, 2017a). A UK study by Ahn and Davis (2020) that analysed the responses of over 420 student participants using a ‘10 Words Question’ research technique found that ‘surroundings’ and ‘personal spaces’ were two domains of belonging in addition to academic and social engagement. The researchers emphasised that institutions should find “practical efforts to enhance students’ success and wellbeing” (Ahn & Davis, p. 631) and connect students with their local communities and cultural environments to participate in events and volunteering initiatives to promote their sense of belonging. These findings support Tinto’s (2017a) position that, if a student has a sense of “not belonging, of being out of place” (p. 4), this experience can lead to behaviours, such as withdrawal from others and from learning activities, that undermine motivation to persist and to learn.

The HESP (2017) in Australia, which has examined HE student retention nationally, acknowledged that complex factors exist with attrition rates further compounded by external factors (e.g., economies and digitalisation). In the HESP’s national report on improving retention, completion, and success in HE, it was recommended that institutions mitigate against factors that can lead to attrition and continually make an adjustment to curriculum, pedagogy, and academic policy (HESP, 2017). The HESP’s

examination of HE retention also found that the approaches and interventions that work for one cohort, institution, faculty, or discipline may not necessarily work in another context or be scalable for the whole sector. While the influencing factors for student retention can be complex and extensive, HESP (2017) reported that, in Australia, some institutions are reported as being more effective in supporting higher-risk students than others evidenced by wide variations in university attrition rates. Retaining a diverse student population participating in HE requires institutions to develop “tailored support strategies embedded within the curricula” (Walker-Gibbs et al., 2019, p.2). The HESP (2017) report supported this proposition and detailed that student characteristics (e.g., ATAR, admission basis, age) have less importance in explaining attrition, because institutions have a greater influence on student retention through the impact they have on a wide scope of education-related factors.

### **The First Year in Higher Education**

The first year of study is considered a critical time when students forge their identity as university students and determine if HE is the right choice for them (Baik et al., 2015). The term ‘first-year experience’ (FYE) is often used to broadly describe the elements of the initial year of university education that institutions focus on to ensure students are engaged, supported and successful, irrespective of their academic discipline or mode of study (Nelson et al., 2014). Harvey et al. (2006) stated that there is a “multiplicity of first-year experiences” (p. 106) unique to student characteristics, the type of institution, the requirements of the institution, and the educational conditions (Gale & Parker, 2011; Tinto, 2009) making it difficult to identify the factors that influence the FYE.

Extensive evidence from the literature supports a focus on the importance of a positive and successful FYE and a “coherent foundation” (Kift & Nelson, 2005, p. 229) being established, so that students may have an improved FYE more generally, engage in their learning and progress throughout their course (Birbeck et al., 2021; Goode et al., 2022; Harvey et al., 2006, Kift & Nelson, 2005; Rickard et al., 2018). The first-year curriculum is designed to encompass a range of academic and social elements, support services, and extra/co-curricular activities (Ambler et al., 2019). Co-curricular and extra-curricular programs can enhance first-year student academic success, satisfaction and retention when institutions develop a “comprehensive system of complementary activities based on effective educational practices” (Kuh, 2008, p. 556) such as orientation, peer tutoring, first-year seminars, and early academic intervention programs (Kuh, 2008). Both a successful FYE and a successful transition to HE are vital for students and institutions to mitigate the risks of student attrition.

### ***First-Year Transition Pedagogy***

Kift (2015) reported that Australian universities tend to lead the FYE through a ‘transition pedagogy’ lens. Kift et al. (2010) define transition pedagogy as an intentional and proactive approach to the FYE that “seeks to mediate the reality of commencing cohorts diverse in preparedness and cultural capital” (p. 12). Described as having a student-focused approach to the FYE, transition pedagogy is an “intentionally designed first year curriculum” (Kift et al., 2010, p. 2) that facilitates learning within a coherent, integrated and holistic institutional environment focused on supporting diverse first-year student cohorts. Transition pedagogy is suggested as an approach that can ensure student success is not left to chance so that all students, no matter their background, can be successful in the first year through an enhanced FYE that promotes student engagement, belonging and support (Kift et al., 2010, Tinto, 2009). Furthermore,

implementation of first-year transition pedagogy requires a whole-of-institution commitment to enhance the FYE focusing on first-year student success at every level of decision-making, policy and resourcing.

Findings in the literature (Gale & Parker, 2011; Harris & Barnett, 2014; Kift, 2015; Larsen et al., 2019; Lizzio, 2006) reinforce Naude et al.'s (2016) statement that “many researchers have focused on students’ transition into HE and the factors contributing to their success” (p. 37). In Australia, transition pedagogy is considered to have “a major impact on the first-year experience for higher education students” (Birbeck et al., 2021, p. 1). Therefore, first-year curriculum should aid student transition. This can be achieved in the curriculum through student-focused design, scaffolding that supports the process of transition over time, and the provision of an engagement and success framework for first-year students from diverse backgrounds (Birbeck et al., 2021; Nelson et al., 2014).

### ***Research into the FYE***

van der Zanden et al. (2018) reported that previous research on first-year student success tended to focus on particular domains of student success (e.g., academic performance and graduate skills), providing valuable predictors for these domains. However, these predictors may not necessarily be the same for different domains of student success. Furthermore, van der Zanden et al. argued that student success for first-year students is multi-dimensional and there is complexity associated with students succeeding in their first year at university.

Baik et al. (2015) surveyed FYE frameworks within Australian universities over two decades (i.e., 1994-2014). Their 2015 report highlighted that the academic success, satisfaction and retention of first-year undergraduate students continue to remain a

priority for HE institutions. The study also examined surveys of first-year undergraduate students at eight Australian universities at five-year intervals over the two decades, gathering 1,739 student survey responses, with a fifth study in the series conducted in 2014. These studies presented evidence that the sector has become increasingly responsive to the needs of first-year students to improve the quality of their educational experience. First-year students were found to have a strong sense of purpose, and their main reasons for undertaking a university degree were related to an interest in their field/discipline (96%) or to improving their job prospects (87%). However, over a third of students indicated difficulty getting motivated to study. This can lead to disengagement, and as a consequence, inhibit persistence, achievement and retention.

Kift (2015) reported that improvement efforts tend to target redesigning the FYE, with limited consideration of the “centrality of the curriculum to the commencing experience” (p. 56) and any new modes of delivery. Two institutional learning and teaching projects at an Australian university conducted by Nelson et al. (2014) focused on enhancing student transition in first-year education. Following evaluation, these projects led to the publication of a good practice guide for policy and practice in the FYE. The guide determined six guiding curriculum principles as important to the design of first-year units of study and of the student experience. These principles included transition, diversity, design, engagement, assessment, and evaluation/monitoring. Specific activities for each principle were subsequently developed and applied. For example, design principles of the first-year curriculum set out requirements that included being student-focused, and using scaffolding and sequencing to promote learning success. Assessment requirements included a curriculum design principle to increase complexity in assessment from first year to later years of a student’s course,

with formative evaluations provided early to students to provide actionable and meaningful feedback.

Furthermore, Nelson et al. (2014) determined good practice guidelines for first-year unit teaching approaches. The wide range of approaches included assisting students in developing a sense of belonging with the academic discipline, their peers and staff, through collaborative learning practices, clear assessment expectations, and basic academic skill development, and the awareness of student support services. Harris and Barnett (2014) also took a transition perspective on the qualitative evaluation of first-year education from when they developed and implemented the “Thriving in Transition” (p. 6) model. Their findings complemented existing research on first-year student transition and success, emphasising the student attributes required to thrive in and through the first year, including readiness, motivation, confidence and “proactive coping strategies” (Harris & Barnett, p. 128).

In Finland, Vesikivi et al. (2020) adapted their first-year curriculum design using project-based learning for Information Technology curriculum to improve student retention, enhance the student experience and incorporate industry-relevant work practices and competencies. In 2014, a new project-based curriculum was implemented. The first year was restructured to four 15-credit multi-disciplinary courses lasting approximately eight weeks for small classes of 30 students, replacing the traditional curriculum model of 20 single-discipline courses in large lecture formats. A mixed methods research strategy incorporating both quantitative and qualitative data collection and analysis methods was used to examine student development of knowledge work competence through self-evaluation, student retention rates, and feedback on student experiences. “Credit accumulation” (Vesikivi et al. 2020, p. 69) was used as the retention measure and, in addition, course completion and grade data were collected to

complete a comprehensive analysis and assess any academic success factors that may have influenced student retention. An online questionnaire completed by students at the conclusion of their courses in the first two study periods during the year the curriculum reform was implemented (i.e., 2014) resulted in 192 responses from 13 out of 40 courses. The questionnaire examined student experiences of the courses and their learning and development associated with work practices and competencies through open-ended questions and scaled items.

Vesikivi et al.'s (2020) research results showed evidence that the new project-based approach to the first-year curriculum “substantially improved first-year retention” (p. 78), and a statistically significant difference that showed improved course grades. Students reported a higher level of positive elements of their course experiences, compared to negative elements. The positive elements had important associations with student retention and commitment, such as collaboration, teamwork, practical assessments, and interaction with and support from teachers. The negative elements students indicated were in relation to poor course organisation, communication and group work. Group concerns were related to peer absences in group activities, the high amount of teamwork involved and perceptions of restless classrooms. The researchers suggested that some of negative feedback was associated with the new curriculum implementation and the first study periods in which teachers had to implement and teach in a multi-disciplinary and project-based approach.

As indicated earlier, HE practitioner research regarding the FYE has focused considerably on student transition and the associated outcomes of academic success and student retention. Student success outcomes in first-year education are multi-dimensional, contextual, and complex (Van der Zanden et al., 2018). Aspects of the first-year curriculum change by Vesikivi et al. (2020) aligned closely with aspects of the

curriculum reform investigated in this research, with some features introduced in that curriculum change similar to those associated with the University's first-year educational reform (e.g., first-year curriculum change from a traditional mode, smaller classes, active and group-based learning, engaged learning). However, other aspects of the study were not aligned, including the limited implementation of the curriculum change to one academic discipline, no intensive BM format or focus on students from equity group backgrounds. Further research is required to examine how the application of intensive BM education for all first-year academic disciplines within a dedicated and purposefully designed FYM impacts larger student populations, including those from a range of equity group backgrounds. In addition, future investigation is required into the perspectives and experiences of teachers and students involved in first-year education, student reflections on their definitions of success (Walker-Gibbs et al., 2019), and quantitative data on student success. This area of research appears to be a gap in the existing literature concerning whole-of-institution transformation and curriculum reform to enhance first-year education, the FYE and student success.

### **Higher Education Delivery Modes**

The traditional mode of HE curriculum provision in universities has typically delivered education within a semester system that divides the academic year into two semester-length teaching periods encompassing weekly lectures and tutorials as standard teaching practice (Chau et al., 2023; Davies, 2006; Murray et al., 2020). However, the semester criteria determining a 'traditional' mode of undergraduate delivery can vary between universities (Davies, 2006). For example, Australian universities may have more than two semesters per academic year (e.g., trimester) and varying lengths for each semester's teaching period (e.g., 10, 12, 14 or 16 weeks) (Study Australia, 2023).



While areas of innovation exist within learning and teaching at many institutions, there has only been a limited fundamental change in teaching practices across the sector in over 20 years (Davies et al., 2017). A recent exception is the rise in transition to accessible and flexible learning and teaching via online delivery modes due to the disruption of the COVID-19 pandemic (Martin, 2020). In the context of first-year undergraduate education, the literature has emphasised that improvement to formal and informal learning needs to go beyond “tinkering with curriculum design” (Kift & Nelson, 2005, p. 225). Furthermore, Tinto (2009) stated that a “coherent systematic structure” (p. 10) is needed to promote first-year student success in an educational model and that programs to support student retention should not be isolated from the curriculum.

An increasing trend to develop and implement innovative teaching approaches has emerged in response to wider HE sector shifts (Dixon & O’Gorman, 2020). One innovative and alternative approach universities have adopted is intensive mode curriculum and course delivery. A range of reasons and priorities drive the need for universities to transform their educational model and offer an alternative mode of learning and teaching. These reasons may include flexibility for students with caring and work responsibilities, curriculum reform, quality of learning and teaching, financial sustainability, efficiency drivers, market competition driving differentiation, socio-political, and contextual factors, and the need to evidence the impact of learning and teaching through improved academic outcomes and the student experience (Chau et al., 2023; Davies, 2006; Dixon & O’Gorman, 2020; Healey et al., 2019; Krause, 2022; Krug et al., 2016; McCluskey et al., 2021; Sewagegn & Diale, 2021).

Intensive modes of education are increasing in HE, and varying methods or formats for delivering courses exist, including ‘block’, ‘accelerated’, ‘time-shortened,

‘compressed’, or ‘condensed’ (Davies, 2006; Scott, 2003). However, the definitions, differentiations and structures can differ greatly in the methods used for each of these intensive delivery modes. For example, delivery modes can include workplaces or weekend programs, varying intensive class hours per week and differences in unit/course duration (Davies, 2006). Male et al.’s (2016) Australian sector-wide survey of intensive mode unit coordinators identified twelve models for intensive mode teaching from the descriptors provided by 105 participants. The researcher’s findings informed a guide for intensive mode teaching that offered a concise definition for intensive mode teaching: “engaging students in facilitated learning (classes of various kinds) on fewer days and for longer on each day than is traditional in the discipline” (p. 1). Mitchell and Brodmerkel (2021) explained that “highly intensive teaching refers to subjects taught face-to-face in four weeks or less” (p. 2), which aligns with some applications of BM education learning and teaching discussed in the next section.

### ***Intensive BM Learning and Teaching***

Globally, BM is a widely practised delivery mode that is increasing in popularity and is a term used by some researchers interchangeably with ‘intensive mode’ delivery due to there being no clear distinction between the two terms in the literature (Buck & Tyrrell, 2022; Burton & Nesbit, 2008; Chau et al., 2023; Mitchell & Brodmerkel, 2021; Nerantzi & Chatzidamianos, 2020). Weldon (2022) described BM as essentially a tool for scheduling with units timetabled sequentially (e.g., one unit of study at a time over four weeks) instead of concurrently (e.g., four units of study over 12 weeks in traditional mode). Davies’ (2006) review of intensive teaching formats defined BM as “very large chunks of teaching time, for example whole day sessions, offered in week-long mode, two or three-week long mode and weekend mode” (p. 3).

Many variations in the format of BM delivery have emerged since Colorado College in the US first pioneered the ‘Block Plan’ over fifty years ago, which today delivers one BM unit at a time to students over a three-and-a-half week long (or 18 day) format (Colorado College, 2021a; Colorado College, 2022b; Goode et al., 2022). BM frameworks vary in the design of student learning (e.g., one or two units of study at a time) and are typically delivered in-person via shorter block unit teaching periods (i.e., 1-10 weeks), with classes either delivered over consecutive days or spread across the block teaching period (Goode et al., 2022; Nerantzi & Chatzidamianos, 2020; Mitchell & Brodmerkel, 2021). Burton and Nesbit (2008) reported that, despite the varying methods for applying or scheduling, the main characteristic of BM education appears to be that “an equal number of class hours is delivered in more concentrated bursts, compared to the more traditional pattern of classes” (p. 5).

However, the characteristics of BM extend beyond the structure and scheduling of units and classes within the delivery mode. For example, BM education incorporates active learning pedagogies, typically in small classes, to facilitate engagement and deep learning, with a summative assessment at the end of each block to provide feedback to promote an enhanced student experience and student success (Buck & Tyrrell, 2022; Goode et al., 2022; McCluskey et al., 2020; Scott, 2003). In addition, BM features student-centred approaches that can positively increase student participation and closely replicate professional practice in particular educational settings (e.g., skill-based disciplines) compared to traditional mode (Murray et al., 2020; Sewagegn & Diale, 2021).

The literature highlights some of the benefits of changing from the HE traditional mode to BM learning and teaching as the opportunity to purposely reform all aspects of pedagogy, curriculum, and institutional operations with an explicit focus on improved

student outcomes (Weldon, 2022). Furthermore, evidence from previous research studies (Dixon & O’Gorman, 2020; Goode et al., 2021; Swain, 2016) indicates that BM can provide a structured learning environment for first-year students that enables supportive relationships to be formed with staff to ease the transition to HE study and promote student success, particularly for students from equity group backgrounds. In addition, BM can be beneficial to students because of the focused learning approach which can increase confidence, academic success, satisfaction and retention, while also affording students the ability to reduce competing time demands with work and family by not studying multiple units/assessments at the same time (Burton & Nesbit, 2008; Goode et al., 2021; Kucsera & Zimmaro, 2010; McCluskey et al., 2019; Scott, 2003; Turner et al., 2021).

The literature also highlights the disadvantages and criticisms of BM. These include the potential for lack of academic or course rigour, reduced time for student reflection on subject content compared to traditional mode, perceived student satisfaction with the delivery or their learning, time pressures on students from the shortened block study period available, and the potential for cognitive overload and subsequent fatigue or reduced learning outcomes if traditional mode curriculum is not adapted sufficiently for the short and intensive BM format (Buck & Tyrrell, 2022; Davies, 2006; Kuiper et al., 2015; Loton et al., 2020; Murray et al., 2020; Welsh, 2012). In addition, the change from traditional mode to BM requires sometimes challenging changes for teachers who need to develop new or different teaching and assessment strategies and practices to create an active, engaged, and immersive learning environment that provides students with regular and varied feedback from renewed assessment strategies for BM (Nerantzi & Chatzidamianos, 2020; Walsh et al., 2019; Weldon, 2022).

An educational reform to transition from traditional mode and deliver BM requires change at both the individual teacher and the institutional level. As with learning in BM, teaching is also considered intense for staff, and the unit design and delivery must be well planned and prepared ahead of teaching. Student learning materials must also be pre-prepared, well-structured and accessible, with a detailed and informative unit guide to enhance the learning experience (Ramsay, 2011; Weldon, 2022). At an institutional level, Ho and Polonsky (2009) reported that while intensive modes such as the BM may be an attractive and feasible alternative to the traditional mode of education, institutions can incur increased costs for large-scale implementations if there is insufficient investment in the effective operation of an intensive mode of learning and teaching. One example of insufficient investment and resourcing is in the area of teacher support and professional development required to transition effectively from traditional mode to BM. Where sufficient support is lacking for teachers or the change to BM is not fully accepted, teachers may simply try to condense their traditional mode unit content into a BM format as an initial response to any educational reform. The literature evidences this response as neither a successful nor a sustainable method for teachers, and their student learners, who transition to BM learning and teaching (Exetera et al., 2010; Jackson et al., 2022; Nerantzi & Chatzidamianos, 2020).

While the curriculum, structure and design for BM education are at the centre of effective teaching and educational change, communication between teaching staff and their students is also essential (Honkimäki et al., 2022; Nerantzi & Chatzidamianos, 2020). Regardless of the BM framework selected to transition to intensive mode learning and teaching, and with due consideration given to relevant institutional constraints, student-centred learning remains at the forefront of any BM educational reform to enhance student success (Nerantzi & Chatzidamianos, 2020). The following

section details comparable studies into BM educational reforms and trial projects and the outcomes for those institutions and their students.

### ***Research into BM Education Formats***

The available literature on BM education suggests that the intensive format is designed in different formats to serve different institutional contexts and, is not a new development in HE. However, limited research is available on BM and its effectiveness to inform the HE sector (Buck & Tyrrell, 2022; Davies, 2006; Dixon & O’Gorman, 2020; Nerantzi & Chatzidamianos; 2020).

The most prominent introduction of BM dates back to 1970. Colorado College in the US pioneered a radical change to course structures when they implemented BM in response to HE reform and feedback from their community (Colorado College, 2023; Freeman et al., 2020). Once considered a “global outlier” (Dixon & O’Gorman, 2020, p. 585) in the delivery of BM education, Colorado College have since been joined by many other HE institutions worldwide that have implemented BM in varying formats for a range of course levels and academic disciplines. A detailed overview of select and relevant research studies in Australia, the UK, and the US, as they relate to BM and similar intensive formats of education, is presented below, noting the finding in the previous section that there is no consistent and clear distinction between BM and intensive mode in the literature.

BM learning and teaching have been adopted across multiple universities in Australia in both undergraduate and postgraduate courses (Buck & Tyrrell, 2022). The University at the centre of this research (see Chapter One) has undertaken the most recent major implementation of BM for undergraduate education in Australia. The University’s change from traditional mode to BM in 2018 was a “cross-disciplinary first-year change

initiative which recalibrated most aspects of higher education” (McCluskey et al., 2020, p. 61), including the curriculum, mode of delivery and teaching practice. Jackson et al. (2022) reported that the first-year educational reform created a “distinctive first-year experience to improve retention and success” (p. 18) of students through innovative and improved teaching and was in response to associated fiscal challenges experienced by the University at the time. No prior HE precedent existed that compared to the “sheer magnitude of organisational change required to introduce the new model” (Winchester et al., 2021, p. 1336) at the University.

The BM format was structured for students to engage in active learning in small classes via sequential 4-week blocks (McCluskey et al., 2020) for first-year students, taught in a “purposely-conceived First Year College” (Howe et al., 2019, p. 1) with transition pedagogies underpinning the units of study (Kift, 2015; Oraison et al., 2020). The reported outcomes of the educational reform (led by the FYC) included improved student academic success and retention for undergraduate students, with the highest pass rate increases found among students from equity group backgrounds (Jackson et al., 2022; McCluskey et al., 2020).

Earlier research studies that used quantitative analysis techniques to compare the first-year student group traditional mode cohort in 2017 to the initial BM cohort in 2018 revealed that the introduction of the BM (with a supporting FYM) improved pass rates for both domestic and international students (9.9% and 5.8% increases respectively) (McCluskey et al., 2020; McCluskey et al., 2021). McCluskey et al.’s (2020) study of the same group comparisons using quantitative institutional data found positive academic success outcomes for students from some equity group backgrounds. This study analysed 32,000 results from over 4,000 equivalent full-time student study loads (EFTSL). These outcomes included improved pass rates for students from LSES

backgrounds (up 15%), First Nations students (up 21%), and students from NESB (up 14%). The positive findings for students from equity group backgrounds were confirmed in other institutional studies (Jackson et al., 2022; Winchester et al., 2021).

Overall retention rates in 2017 (i.e., 84%) rose by 1% in 2018 and a further 2% in 2019 (i.e., the second year of BM implementation) for the entire first-year population (McCluskey et al., 2021). In addition, qualitative research conducted (via interview and focus groups) with students and teaching staff at the University by Jackson et al. (2022) provided contextual insights into the success of the educational reform. These insights included improved relationships between staff and students due to three factors: the recruitment and development of a new first-year teaching team to establish the FYC, the BM's small classes that enhanced engagement, and regular and early assessment feedback for students that improved their confidence as learners.

At a regional public university in Australia in 2021, an immersive scheduling model, titled the 'Southern Cross Model' (SCM), replaced the traditional trimester mode of undergraduate education with six teaching periods (of six-weeks each) within the academic year (Goode et al., 2022; Southern Cross University, 2022). In response to high student attrition rates and low rates of student success, the university undertook an "institution-wide overhaul of curriculum, pedagogy, and the policies and systems that shape and support teaching delivery" (Goode et al., 2022, p. 2). The SCM intensive mode format consists of immersive 6-week teaching periods in which full-time students simultaneously undertake two units of study (Goode et al., 2022; Roche et al., 2022). Reported as differing from the University's BM, Goode et al. (2021) described their intensive mode of education as a "distinctive application of Technology-Enhanced Active Learning in a Shorter delivery model (TEALS)" (p. 1). However, Buck and Tyrrell (2022) reported that 'immersive scheduling' is also referred to as 'block



delivery’, further confirming the claim that the terms and definitions for different methods of intensive modes and BM remain unclear in the literature.

A recent quantitative evaluation of the SCM educational reform, using institutional data associated with predominantly first-year students, compared student academic success and satisfaction between the SCM pilot year and the previous traditional trimester mode (Goode et al., 2022). Inferential and descriptive statistics from the analysis indicated the student academic success rates improved across multiple cohorts with large student proportions (i.e., enabling, undergraduate, domestic, international, and internal) from 2019 (traditional mode and pre-pandemic year) to 2021 (SCM pilot year). In contrast, the findings from the analysis of student satisfaction data showed variances across the cohorts. The influences on positive and negative changes to student satisfaction ratings in the SCM were not clear or identifiable from the data. The influences were reported as potentially being attributed to various factors (e.g., SCM design, student or institutional factors, and change management practices associated with SCM implementation).

Prior to these wholesale approaches to undergraduate learning and teaching (Turner et al., 2021), Ramsay (2011) introduced intensive block teaching to law subjects in an Australian university’s law school master’s program. The intensive BM was structured to teach students one subject intensively over five days. In comparison to a group that was taught the same subject in the traditional semester-mode, some evidence from the statistical analysis of student survey data collected from both groups revealed that “overall the intensive subject student evaluations are better than the evaluations for the full-length semester subject” (Ramsay, 2011, p. 96). The study further evidenced that “intensive teaching can offer strong educational outcomes” (Ramsay, 2011, p. 100). A limitation of the study was the inability to compare learning and academic success

outcomes across an entire semester for students in both intensive and traditional mode groups.

Burton and Nesbit's (2008) research study surveyed Australian postgraduate BM students in a business school to compare student preferences for their BM format (five-day) or weekly traditional mode format (10-week structure). At the HE institution, students were afforded a choice of format, with most subjects offered in both BM and traditional mode. Responses were received from 944 students (86.7% response rate) across 45 classes for a mixed methods survey containing open-ended questions and scale items to examine underlying factors influencing student choice of delivery mode format. The findings revealed that students might not feel confident with their ability to cope in intensive mode when learning technical subjects (e.g., accounting). They found that this lack of confidence may prompt student preference for traditional mode learning when a delivery mode choice is available. In addition, 18% of respondents indicated a preference for the traditional mode due to their perception of educational benefit compared to BM learning.

The study also highlighted that reservations students may have had about their learning in BM were reduced as their experience with the BM format increased. Burton and Nesbit's (2002) earlier research, using mixed methods analysis to examine student attitudes to intensive teaching (using survey data collected) and faculty attitudes to intensive teaching (using interview data collected), also indicated reservations about the BM format among those students who had not experienced BM. However, the researchers also found that students were less likely to have reservations about BM once they experienced learning in that format. The authors suggested this result may indicate that student views may not be related to actual disadvantages of the format, and are

perceptions that universities could understand and address with students regarding their concerns.

In the UK, universities have trialled the BM, and some universities have adopted varying BM formats to respond to a more diverse student population and increased accountability on universities to improve student success rates (Buck & Tyrrell, 2022; Dixon & O’Gorman 2020; Nerantzi & Chatzidamianos, 2020; Swain, 2016; Turner et al., 2021). Buck & Tyrrell’s (2022) mixed methods study of their pilot undergraduate BM and blended delivery approach reported positive student academic success outcomes, student experience and study engagement due to more focused and flexible learning that promoted a greater sense of accomplishment. At this UK university, each block included four weeks of lectures, practical activities, tutorials, and seminars and a fifth week for final assessment and preparation activities for the next block teaching period.

The researchers found that students attained “higher assessment grades” (Buck & Tyrrell, 2022, p. 7) across almost all modules, with the difference considered statistically significant compared to students in the previous year who studied via traditional mode. These research findings also showed that “well-designed block delivery” (Buck & Tyrrell, 2022, p. 11) may be effective for a range of academic disciplines and may not be subject or discipline area dependent as the limited earlier research suggested (Dixon & O’Gorman, 2020). The qualitative findings from data collected from students also showed that students appreciated having the ability to focus, effectively manage their time and develop their confidence in BM. The authors considered these characteristics of BM learning as “congruent with the suggestion that a reduced cognitive load helps performance” (Buck & Tyrrell, 2022, p. 11).

Another UK university experimented with block teaching for a Tourism Management undergraduate degree program before reverting to its previous traditional mode of delivery (McKie, 2022). Block teaching was trialled in response to student feedback regarding outcomes and issues related to student attendance, engagement, and retention more broadly (Dixon & O’Gorman, 2020). The university implemented a trial intensive block teaching format consisting of one unit of study at a time taught for two full days (i.e., six hours per day) over a three-week block period. Dixon and O’Gorman’s (2020) research presented the perspectives of intensive mode learning and teaching from nine teachers surveyed (online) who had participated in the BM delivery trial about the strengths and weaknesses of block teaching. The findings revealed positive and negative aspects of the change for both staff and students, reported from the perspectives of these teachers.

One positive aspect was that the block teaching format focused students on completing one unit at a time which allowed staff and students to engage in a “seamless delivery” (Dixon & O’Gorman, 2020, p. 589) with students. The study also found that the BM format benefitted students through a cycle of assessment and feedback that enabled a “faster sense of accomplishment” (Dixon & O’Gorman, 2020, p. 589) and teachers felt that BM was effective as a transition tool. However, the negative aspects of the change indicated that block teaching failed to improve student attainment, attendance, and engagement levels. Furthermore, the researchers reported that block teaching, in this instance, “negatively affected student attendance and subsequently hampered deep learning” (Dixon & O’Gorman, 2020, p. 1). From a teaching perspective, some teachers reported the positive aspects of being able to manage their time more effectively, while others felt ‘rushed’ in their preparations which adversely

affected students' reflection time during study and the types of scaffolding required for deep learning.

Concerns were also detailed, indicating that students did not have sufficient time to “absorb and reflect on the material taught” (Dixon & O’Gorman, 2020, p. 591). Two identified barriers influenced the successful implementation of block teaching. Firstly, student absences heightened the risk of failure due to the intensive pace of block teaching and the volume of content missed while absent. Secondly, the design of the block format resulted in overlapping assessment cycles, which adversely impacted student assessment outcomes in earlier units. The researchers recommended innovation be introduced for assessments to mitigate these issues with lagging assessments. They also recommended a pilot block program for the first unit of each semester/year to ease commencing first-year student transition and the transition between higher course years. In addition, teachers who participated in the survey preferred to retain elements of block teaching in their courses and “integrate intensive modules into a mix of other module formats” (Dixon & O’Gorman, 2020, p. 590) to mitigate the potential for increased fail rates due to student absences.

Research at the same institution (in the business school) conducted by Swain (2016) explored first-year undergraduate student perspectives of BM using a mixed methods approach. Students strongly indicated a preference for BM with descriptions of their experience of block teaching being enjoyable, engaging, focused and creating a positive relationship between teachers and students. This study highlighted two potential challenges and implications for practice requiring further consideration. These challenges were teacher fatigue from intensive BM teaching and centralised BM timetable management, which can negatively impact the effective communication required between the many key stakeholders to operationalise BM.

Also, in the UK, Turner et al. (2021) introduced an ‘immersive scheduling’ format in a university with a diverse student population and “higher than average number of students from widening participation backgrounds” (Turner et al., 2017, p. 808). In 2014, the university piloted a four-week immersive induction module for first-year students in their academic discipline (Turner et al., 2017). Following this pilot, the university then introduced one immersive module for the commencement of each of the two 15-week semester teaching periods in the year for first-year undergraduate courses (Turner et al., 2021). Following the four-week immersive module teaching period for one unit of study, which included assessment, students continued to study for the remainder of the semester (i.e., 11 weeks) in the traditional mode, which typically consisted of three modules undertaken at one time, taught over nine weeks with a two-week assessment period.

A “novel ‘within-subjects’ analysis” (Turner et al., 2021, p. 1) method examined data for over 3,000 students across multiple academic disciplines and analysed their individual performance for completed immersive mode modules compared to traditional modules in the same semester period. The analysis revealed a “significant medium-sized effect, whereby student performance in immersive modules was, overall, higher” (Turner et al., 2021, p. 1379) than in traditional mode for the same semester period. In addition, marks for immersive mode were found to be significantly higher and consistently higher across varying cohorts, indicating that the immersive scheduling model used at this university may be a “beneficial pedagogic tool” (Turner et al., 2021, p. 1371) for enhancing student academic success. Furthermore, academic success outcomes for particular student equity group cohorts (e.g., SWD, LSES) were not negatively impacted by the introduction of the new immersive learning and teaching model. Turner et al. (2021) considered this a significant finding for SWD at this

university, where concerns had previously been raised about introducing an intensive and shorter delivery mode format and potential disadvantages for these students as a result of doing so.

Research conducted in US universities, in the 1990s and early 2000s, indicated that students have increased focus, perseverance and retention in shortened intensive mode course formats (Scott, 2003). Furthermore, Scott's qualitative analysis of intensive mode courses, using student interviews and classroom observations, found that students perceived they retained information better because of the focused learning and shorter unit duration compared to traditional mode learning. Also highlighted in the research literature are the findings that students can have more rewarding learning experiences and achieve superior learning outcomes compared to traditional mode (Scott, 2003; Scott & Conrad, 1992).

Researchers from a large public university in the US (Kucsera & Zimmaro, 2010) reported the findings from their examination of both 9-week and 11-week intensive course modes compared to the traditional mode offered (15-weeks). Quantitative data collected and analysed from student responses to semester-end 'course instructor surveys' revealed that the intensive mode formats received "significantly higher overall course ratings" (Kucsera & Zimmaro, 2010, p. 1) compared with the traditional format taught in the same year. In addition, students rated overall teacher effectiveness within the intensive mode formats similarly to traditional mode, with no significant difference indicated. Furthermore, this research found that intensive mode courses did not show a lighter course workload compared to traditional mode, and students did not perceive the learning to be easier.

While relatively limited research exists in this area (Nerantzi & Chatzidamianos, 2020), HE research studies comparing student success outcomes between BM and

traditional mode formats indicate that intensive course modes can improve student success outcomes. In addition, BM is proposed as an effective educational approach to ease first-year student transition and improve academic success outcomes for diverse student populations. However, the effectiveness of BM learning and teaching and the specific and particular factors influencing student success across a range of academic disciplines, institutional contexts and student populations requires further examination and evidence to inform the HE sector (Davies, 2006; Dixon & O’Gorman, 2020; Goode et al., 2022; Nerantzi & Chatzidamianos, 2020; Winchester et al., 2021).

The BM research studies discussed in this section were contextualised to the institutions, student cohorts, discipline areas and/or design and structure of each intensive block format. While there are some comparable elements of these studies to the BM implemented by the University in this research (e.g., undergraduate education, first-year students), these implementations of intensive BM learning and teaching are not entirely equivalent in structure, design, scale, and in relation to examining the impacts on students from equity group backgrounds. The review of existing literature also evidenced a lack of comprehensive research studies related to the impact of an introduced FYM with comparable features to the University’s educational reform (e.g., FYC, BM, FYE). In contrast to the studies discussed in this section, this research seeks to examine: (i) the impacts of a multi-faceted FYM developed to improve first-year student success, in conjunction with (ii) a unique 4-week mode of block learning and teaching, which was (iii) operationalised within a dedicated multi-disciplinary FYC for undergraduate students. In addition, this research seeks to examine multiple aspects of student success and extend the current research literature to span several academic disciplines, domestic and international student cohorts, and a range of student equity groups for a large first-year student population.



## **The Uniqueness of this Study**

The gap highlighted in previous research remains in relation to any major and targeted intervention of first-year curriculum (Kift, 2015; Kift & Nelson, 2005). While there are limited alterations to curriculum design and student support initiatives outside the curriculum, there is an absence of any known significant reform made to first-year undergraduate education. There appears to be no reported evidence of whole-of-institution change as it relates to significant progression in the design, development, integration, and delivery of first-year curriculum to support academic success, satisfaction, and retention; in the way that the University in this research has reportedly achieved this. The literature also indicates that limited evidence has been obtained from students themselves about how they perceive the first-year curriculum influences their success in HE and their learning experiences (Ambler et al., 2021).

In comparison to previous studies on BM learning and teaching (Burton & Nesbit, 2002, 2008; Grant, 2001; Sewagegn & Diale, 2021), the University at the centre of this research has limited comparative research that examines large data samples using both quantitative and qualitative analysis methods to elucidate and present the influences of the BM on first-year student success in comparison to the traditional mode. In addition, previous University studies typically lack extensive research on student academic success, satisfaction, and retention from the lived experiences of students and teaching staff across various academic disciplines and student equity groups.

This research will fill these gaps by examining the overall research aim and sub-aims (see Chapter 1) through two qualitative studies that reveal rich insights from the lived experience of those studying, teaching, and supporting first-year undergraduate students in the University's educational reform during the first two years of implementation, and in the traditional mode the year prior. In addition, a large-scale quantitative study will

be undertaken to examine the impact of the FYM and BM on first-year student academic success, satisfaction, and retention. Finally, within the mixed methods approach, the findings of each study will be integrated, interpreted, and presented as major findings that detail the benefits and constraints of the University's educational reform.

This research will also provide new knowledge on intensive BM learning and teaching and block formats for undergraduate education in Australia and globally. The findings will be broadened by sourcing data from a first-year educational model implemented at a significant scale across multiple disciplines and student cohorts. Key findings from the research will provide rich insights informed by both staff and student voices to address future implications regarding first-year educational models and intensive BM formats of learning in teaching in HE. This research will generate insights into the implications of introducing BM on a large scale to contribute to a growing evidence base that informs HE institutions (Goode et al., 2022). The existing research associated with student success in HE will be enhanced by examining new approaches, and the current and international understanding of intensive BM delivery frameworks in HE will be strengthened.

Herein, throughout the thesis, the term 'student success' is defined as the combination of students' academic achievement ('academic success'), their satisfaction with the learning and overall university experience ('satisfaction') and their continuation in study ('retention').

### **Literature Review Summary**

The literature review in this chapter guided the mixed methods studies to support connections between the current research and the existing evidence to which the

findings can be compared (Rocco & Plakhotnik, 2009). Combining quantitative and qualitative studies to address the overall research aim and the sub-aims (see Chapter One) and examine the impact of a first-year HE reform to learning and teaching, is a considered and measured research plan that utilises a unique research framework developed for this research (see Chapter Three and Appendix A).

The next chapter, Chapter Three, details the research design and overall methodology used to investigate the research aims, the data sources framework, ethical considerations, and the positioning of the researcher.

## **Chapter Three: Methodology and Research Design**

This chapter details the methodology and research design used to investigate the overall research aim and the sub-aims. The chapter addresses the research framework and the three studies, definitions, sampling strategy, data sources and sampling framework, data criteria, data access and targeted sampling procedures, a summary of data sources for the target population and target sample, ethics and ethical considerations, and the positioning of the researcher. Specific methods and procedures for the quantitative study are outlined in Chapter Four (Study 1), and the methods and procedures for the qualitative studies are outlined in Chapters Five (Study 2) and Six (Study 3).

### **Methodology**

This research was constructed within the phenomenological and realism paradigms and conducted in three studies to address the overall research aim and sub-aims. The mixed methods design (Johnson et al., 2007) enabled the student researcher (“the researcher) to have a richer “understanding of the social phenomena being studied” (Greene, 2012, p. 756) and, by using qualitative and quantitative methods, the researcher was able to see “things from alternative perspectives” (Denscombe, 2007, p. 110). The mixed methods design also adopted an integration approach to methodically compare and interpret the results of the quantitative and qualitative studies and develop the major findings to address the research aims (Fetters & Molina-Azorin, 2017).

The quantitative study (Study 1) was positioned in the realism paradigm. The realist design is used extensively in the field of program evaluation (Hall, 2013) to determine actual phenomena instead of a construction of that phenomena. In mixed methods research, realism can provide alignment between qualitative and quantitative research to

enable communication, provide compatibility of essential methodological characteristics of both, and enable better comprehension of the phenomena being studied (Tashakkori et al., 2010). The qualitative studies (Study 2 and Study 3) were positioned within the theoretical framework of phenomenology and emphasised the importance of individual perceptions, attitudes and lived experiences. Phenomenology brought the researcher into the domain of the participants to make the necessary connections with trends and patterns and to understand their perspectives over time (Cohen et al., 2011). The researcher's position at the University for part of this research (see Positioning the Researcher section below) also enabled further insight and a fuller picture of the research's context to enhance the research (Denscombe, 2007). The overall research design provided an evidence base from which to evaluate and understand the research aims and how those aims may be influenced by this research's context (Bamberger, 2012).

## **Research Design**

The overall research aim and sub-aims guided the mixed methods research design to support the use of more than one method to validate the findings and results of the underlying phenomenon of the educational reform (Johnson et al., 2007). Together with the literature review, the overall design and application of the quantitative and qualitative methods enabled an integrated approach to the comparison of data and results and created meaning from the mixed methods findings (Fetters & Molina-Azorin, 2017). An integrated approach to the interpretation of the overall findings from the three studies enabled the researcher to reflect on each study to draw comparisons, identify areas of discordance, expand on the meaning of results for each study to provide a more valuable understanding of the data, and add further rigour to the research. The mixed methods design addressed the research aims using multiple data

sources and perspectives and supported the exploration of the overall phenomena of the FYM and BM across multiple academic disciplines and student equity groups. This exploration complemented the evidence, themes, and perspectives that emerged from the literature review. The literature review guided each aspect of the quantitative and qualitative research to support a connection between the sequence of studies and to provide a reference point from which the findings of this research could be compared (Rocco & Plakhotnik, 2009).

### ***Research Framework and Studies***

The research was designed within a unique framework developed to situate the quantitative and qualitative studies within the research context and address the research aims (see Appendix A). The research was conducted via three separate studies, as summarised below:

- Study 1: Quantitative study (student data)
- Study 2: Qualitative study (staff interviews)
- Study 3: Qualitative study (student interviews)

The mixed methods design considered approaches for integration and adopted comparative and interpretive integration dimensions (Fetters & Molina-Azorin, 2017) to examine the overall research aim and sub-aims, as detailed above in the Research Design section.

### ***Definitions***

On the basis of theoretical and applied definitions discussed in the literature review, the set of operational definitions used to guide data collection are detailed below. In addition, the research adopted definitions for ‘academic success’, ‘student satisfaction’ and ‘student retention’ contextualised to the University and its FYM and BM.

Academic success was defined as academic study results, being one of the “most commonly used measures of academic success” (York et al., 2015). Specifically, the unit of study pass and fail grades, marks, and grade distribution were used as academic success measures. In addition, academic success was measured across a range of independent variables, including: academic year; academic discipline; units of study; student equity group classification; and domestic student status.

Student satisfaction was defined as the congruency between universities and their students, namely: considering, identifying, meeting, and delivering on student needs, expectations and what is important to them (Elliott & Shin, 2002; Schertzer & Schertzer, 2004). Specifically, student satisfaction was determined by examining student perceptions of satisfaction and their experience (Cheng et al., 2016), using the scores provided by students, which were stored as quantitative data by the University from one existing University survey instrument and one national HE sector survey instrument. In addition, qualitative data was collected from student interviews.

Student retention was explored from the perspective of student persistence (Tinto, 2017b). A retained student was defined as a student who continued with their studies after their first year to:

- re-enrol in:
  - their course in the Semester 1 teaching period of the following calendar year if they were studying in traditional mode, or
  - the equivalent teaching period of the following calendar year for BM students (i.e., Blocks 1-4); and
- complete a unit of study for at least one unit in that teaching period.

Herein, throughout this thesis, the term ‘unit(s)’ describes a ‘unit of study’ with a 12 credit point value that contributes towards a HE course of study.

### ***Sampling Strategy***

Purposeful sampling was used as the overarching sampling strategy for each study. This strategy was appropriate for identifying either data sources or participants for each study that were relative to the research aims, using inclusion criteria (Palinkas et al., 2013). This sampling strategy was first used to identify Study 1 data sources. Once this process was completed, the data sources were used as the student participant sample to recruit from for interview and collect the data for Study 3 (Johnson et al., 2007). The inclusion criteria for Study 1 (then applying also to Study 3) are detailed below. The inclusion criteria for Study 2 are detailed in Chapter Five.

### ***Data Sources and Sampling Framework***

The data sources and sampling framework examined the research aims and guided data collection for the mixed methods design (Denscombe, 2007). The data sources collected for the quantitative data for Study 1 (see Chapter Four) provided the data sample for use in Study 3 (see Chapter Six) as outlined in the previous section. The sampling procedures to recruit staff participants for Study 2 are detailed in Chapter Five. The specific data collection procedures for both qualitative studies are detailed in Chapter Five (Study 2) and Chapter Six (Study 3).

### **Sampling Frame**

The ‘target population’ is defined by the criteria of the target sample and data sources appropriate to the research aims. The target population included the data sources from which the research findings were generalised. It does not include the whole first-year student population for any academic year. The ‘target sample’ is



defined by criteria appropriate for analysing the research aims and producing sufficient data size and distribution (Casteel & Bridier, 2021). The term ‘data sources’ refers to the student data accessed and selected using targeted characteristics to appropriate secondary data collection to the research aims (OECD, 2008; Persaud, 2010). The following section provides detailed information on the criteria and characteristics that define the target population, target sample, and data sources.

### ***Data Criteria***

Data criteria were developed to identify the target population, target sample, and data sources, guiding the data collection for Study 1. Once the data for Study 1 was accessed, further characteristics were applied to the data sources to appropriate the data for the research.

The University had six academic discipline areas: Arts and Education (Arts and Ed), Business, Engineering and Science (Engineering), Health and Biomedicine (Health), Law and Justice (Law), and Sport and Exercise Science (Sport). The target population and target sample included students from the two units in the first year with the highest total number of unit attempts in each of the six academic discipline areas, and only included data sources from those unit attempts that recorded a ‘unit completion’. Consequently, the research only considered unit completions in the final data sources. Unit completion is defined as a completed and graded unit that a student did not discontinue during their enrolment in the unit. This criterion for the data sources applied to all analyses conducted in Study 1 (see Chapter Four). Detailed information on the criteria and characteristics applied to the data sources is detailed throughout this chapter.

## **Target Population Criteria**

The students of interest in the study were those commencing in their undergraduate courses at the University, in first-year units, in both traditional mode and the FYM and BM. Three groups of students formed the target population used to examine the research. The groups within the target population (from which the target sample was drawn) and the associated data criteria are as follows:

- Group 1 – Traditional Mode Group (TMG):
  - First-year commencing undergraduate DBC students studying in the traditional mode in the 2017 academic year.
- Group 2 – Initial Block Group (IBG):
  - First-year commencing undergraduate FYC students studying in the FYM and BM during the first year of its delivery in the 2018 academic year.
- Group 3 – Subsequent Block Group (SBG):
  - First-year commencing undergraduate FYC students studying in the FYM and BM during the second year of its delivery in the 2019 academic year.

Subgroups within the target population were established to examine different student cohorts appropriate to the research aims, as follows:

- Student equity groups:
  - Students identified as SWD
  - students from a NESB
  - students identified as LSES; and
  - First Nations students.

- Domestic status:
  - Domestic students; and
  - International students.

The University's equity group identifiers were adopted for the research and included students who self-identified as meeting one or more of the following criteria at the time of enrolment to study: students identified as SWD, students from a NESB, students identified with a postcode recognised as LSES, and First Nations students. Both domestic and international students were considered in all equity group data sources, except for LSES as socio-economic status is assigned to domestic students only (Department of Education, 2023c). The domestic status of students was included as a subgroup to further segment the target population and give context to the research results for each of the studies and the overall findings. These selected subgroups and associated data sources are detailed in the Student Equity Group Data Sources section within Appendix D.

### **Target Sample Criteria**

The following criteria were applied to the target population to select the target sample and guide the access to the data sources:

- a) first-year units that were taught in 2017 to Group 1 (TMG), and again in 2018 to Group 2 (IBG), and again in 2019 to Group 3 (SBG) by the University's FYC; and
- b) the two first-year units that had the highest total number of unit attempts for commencing Semester 1 students in each of the University's six DBCs in 2017; and

- c) students enrolled onshore at the University's Melbourne locations and commencing in their courses as first-year undergraduate bachelor students in the Semester 1 teaching period of each year or the BM equivalent (i.e., Block 1 (1B1), Block 2 (1B2), Block 3 (1B3) and Block 4 (1B4)).

The first criterion used to access University records and establish the target sample was 'unit attempt'. Targeted criteria for the data sources were then developed to select appropriate student data associated with the target population and sample and access the data. This process ensured that the data sources selected for the studies were relevant to the overall research aim and sub-aims. The data sources criteria (below) were then applied to the data sources to guide the access and collection of data relevant to the research aims.

### **Data Sources Criteria**

This research included student records in two different modes of education. For this reason, student enrolment data was organised differently in University systems and reviewed carefully by the researcher to filter the data and ensure the final set of data sources aligned with the research aims. The following filtering process and inclusion criteria were applied to select appropriate students to address the research aims:

- a) enrolment records in the units from the target population and target sample for students who had a unit completion (i.e., continued and completed their study post-Census date, were graded, and did not discontinue); and
- b) for records where students had completed the unit in the 2017, 2018, or 2019 academic year (relevant to Groups 1-3); and
- c) for those student records with a course commencement year of 2017, 2018, or 2019 (relevant to Groups 1-3) to meet the target population criteria.

A summary of the data criteria for the target population, target sample, and data sources are presented in Table 1. The following section details the procedures for data access, targeted sampling procedures, and targeted student data characteristics.

**Table 1***Summary of the Criteria: Target Population, Target Sample, and Data Sources*

Target Population	Target Sample	Target Data Sources
<i>Criteria</i>	<i>Criteria</i>	<i>Criteria</i>
<ul style="list-style-type: none"> <li>• Group 1 (TMG): 2017 commencing UG students in DBC (traditional mode).</li> <li>• Group 2 (IBG): 2018 commencing UG students in FYC (FYM and BM).</li> <li>• Group 3 (SBG): 2019 commencing UG students in FYC (FYM and BM).</li> <li>• Subgroups:               <ul style="list-style-type: none"> <li>(a) equity status subgroups of students who were:                   <ul style="list-style-type: none"> <li>- SWD</li> <li>- NESB</li> <li>- LSES</li> <li>- First Nations</li> </ul> </li> <li>(b) Domestic status subgroups of students who are either:                   <ul style="list-style-type: none"> <li>- Domestic</li> <li>- International</li> </ul> </li> </ul> </li> </ul>	<p>Two first-year units with the highest total number of unit attempts in 2017, where each unit was taught again in the Semester 1 period in 2018 and 2019, in each of the following six academic disciplines of the University (Melbourne onshore):</p> <ul style="list-style-type: none"> <li>• Arts and Ed</li> <li>• Business</li> <li>• Engineering</li> <li>• Health</li> <li>• Law</li> <li>• Sport</li> </ul>	<p>Characteristics applied to select appropriate data from the target population and target sample to meet the research aims:</p> <ul style="list-style-type: none"> <li>• Completed the unit, received a grade, and was not discontinued; and</li> <li>• completed the unit in the academic year relevant to Groups 1-3; and</li> <li>• course commencement year was relevant to Groups 1-3.</li> </ul>

***Data Access and Targeted Sampling Procedures***

The data criteria were used consistently throughout the research. A targeted sampling procedure (Trotter, 2012) was designed prior to the commencement of this research to develop a consistent target population, target sample, and set of data sources. The target

population, target sample, and data sources were verified with data accessed from the University.

### **Target Population and Target Sample**

The first data collection step was to access and verify the 12 units that met the criteria for inclusion and the target population. The selected units formed the target sample from which the data sources were then accessed, providing the data sources for the analysis of variables in Study 1 and for the recruitment of student participants for interview in Study 3.

### ***Data Access***

The University's Business Intelligence System (BIS) was accessed to identify first-year units with the highest total number of unit attempts for commencing Semester 1 students in undergraduate courses (traditional mode) from each of the DBCs in 2017. The detailed data access procedures are at Appendix D.

### ***Targeted Sampling Procedures***

Targeted sampling was used to access data relevant to the research (Denscombe, 2007) and to support the established data criteria that aligned with the research aims. Sequential targeted sampling procedures were applied to the data accessed above to review, analyse and create a target sample of groups that met the data criteria. See Appendix D for the detailed targeted sampling procedures. On completion of these procedures, the final target sample was confirmed.

### **Data Sources**

The confirmed target population and target sample then guided the process of accessing the data sources from the University's student enrolment records contained in

the Student Management System (SMS). Additional data sources were later required to complete the quantitative analysis of student satisfaction from data stored in the institutional survey instruments by the University. This additional student-level data was found to be stored separately by the University in the BIS. A separate data access procedure was undertaken to access these data sources (see Chapter Four).

### *Data Access*

A written data access request was made to the University, under the Principal Supervisor's guidance, to extract student-level enrolment data from the BIS and the SMS using the University's agreement process for 'special access to information' (see Appendix B). The University departments advised there was no known precedent for a research student at the University to apply for access to institutional data or student enrolment data. The researcher ensured a transparent process was established with the University as a 'student researcher' to manage any perceived or potential conflict of interest (National Health and Medical Research Council [NHMRC], 2007) due to their employment as a staff member at the University. A copy of the approved research ethics application was provided to both University departments (BIS and SMS) to provide clarity on the nature of the data requests, the access required and confirm ethics approval.

The University department responsible for the SMS appointed a senior manager with whom the researcher could work directly. The senior manager was offered the Principal Supervisor's contact information for an independent discussion, if required, before approving the request and releasing the data. The Principal Supervisor also made written contact with the senior manager and confirmed his role as Principal Supervisor



and Chief Investigator to oversee the ethical management of the data used across the researcher's doctoral program.

To accurately guide the access of data sources from the University SMS, a data request guide was developed (see Appendix C). A two-step data access process guided the target sample (units) and associated data sources (student enrolment records) with a list of SMS database fields supplied as a guide. The researcher's internal institutional knowledge of the SMS was advantageous in guiding the data access. The senior manager facilitated the data access with the SMS team, reviewed the data access request, and approved the data for release to the researcher.

On receipt of the data sources, the researcher met with the University's senior manager responsible for SMS student data to discuss the data access request, the research aims, any discrepancies in interpretations of the data fields and the data provided from the access request. This consultation process was valuable and gave the researcher confidence in the accuracy of the data collection design for data sources to be used in the study.

### ***Targeted Student Data Characteristics Procedure***

On analysis of the data sources accessed, a series of decisions were made to accurately filter the data to meet the data criteria requirements and the research aims. The research supervisors reviewed and approved a summary of those decisions that the researcher proposed as necessary to appropriate the data with the application of data filters. The procedures associated with data filter and inclusion descriptions are detailed in Appendix D. Completing these data filter procedures finalised the data sources and the access to meet the data criteria for the research.

### ***Summary of Data Sources for the Target Population and Target Sample***

Following the application of the data sources framework and criteria and the review and analysis of the data sources outlined above, the final data sources for the target population and target sample were confirmed for analysis.

The final 12 units selected for the research were associated with seven courses. A total of 5,582 data sources were included in the final 12 units. Of those total data sources, the target sample had 3,549 unique student data sources. The unique data sources represented 64% of the total data sources. This was due to 2,033 data sources being for duplicate student identifiers of students who undertook more than one unit from the target sample used in the research. This was an expected outcome in the data sources for instances where the two highest units in an academic discipline were associated with one course of study.

The details associated with the data sources for the target population and target sample are summarised in Table 2. Further information on the data sources and profiles of the student equity groups is provided in Study 1 (see Chapter Four) and Appendix D.

**Table 2***Summary of Data Sources for the Target Population and Target Sample*

Target Sample		Target Population					
Academic Discipline Unit (Course)	Group			Student Equity Group Subset			
	1 (TMG) <i>n</i>	2 (IBG) <i>n</i>	3 (SBG) <i>n</i>	SWD <i>n</i>	NESB <i>n</i>	LSES <i>n</i>	First Nations <i>n</i>
Arts and Ed:	354	215	182	70	116	114	5
ABA1003 Introduction to Sociology (Bachelor of Arts)	97	71	82	34	55	44	2
EEC1101 Personal and Professional Learning (Bachelor of Education (P-12))	257	144	100	36	61	70	3
Business:	578	356	461	52	610	233	7
BCO1102 Information Systems for Business (Bachelor of Business)	210	181	286	28	278	126	3
BEO1105 Economic Principles (Bachelor of Business)	368	175	175	24	332	107	4
Engineering:	92	90	95	19	147	56	0
NIT1102 Introduction to Programming (Bachelor of Information Technology)	48	48	49	10	76	29	0
NIT1103 Communication and Information Management (Bachelor of Information Technology)	44	42	46	9	71	27	0

Target Sample		Target Population					
Academic Discipline Unit (Course)	Group			Student Equity Group Subset			
	1 (TMG)	2 (IBG)	3 (SBG)	SWD	NESB	LSES	First Nations
	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>
Health:	707	889	711	104	1,195	470	8
AEK1203 Indigenous Health and Wellbeing ( <i>Bachelor of Nursing</i> )	350	425	332	46	570	221	4
HNB1103 Professional Studies ( <i>Bachelor of Nursing</i> )	357	464	379	58	625	249	4
Law:	215	115	146	45	154	81	5
BLB1101 Australian Legal System in Context ( <i>Bachelor of Laws</i> )	107	50	57	22	65	34	2
BLB1114 Legal Research Methods ( <i>Bachelor of Laws</i> )	108	65	89	23	89	47	3
Sport:	71	147	158	20	81	64	2
AHE1101 Structural Kinesiology ( <i>Bachelor of Exercise Science (Clinical Practice)</i> )	36	75	81	10	42	33	1
RBM1174 Human Physiology ( <i>Bachelor of Exercise Science (Clinical Practice)</i> )	35	72	77	10	39	31	1
Total Data Sources by Group (% of the target population)	2,017 (36.1%)	1,812 (32.5%)	1,753 (31.4%)	310 (5.6%)	2,303 (41.3%)	1,018 (18.2%)	27 (0.5%)
Total Data Sources (% of the target population)	5,582			3,658 (65.5%)			

Note. *n* = number of data sources.

## **Ethics and Ethical Considerations**

The methodology and research project received ethical approval from Victoria University Human Research Ethics Committee (HRE20-179) on 15 October 2020 (see Appendix E). Major ethical considerations were related to the researcher, data access, and data collection techniques and processes. The researcher was employed at the University as a senior executive leader and active staff researcher when the doctoral research commenced. This status changed in the final year of the research study when the researcher had left the University.

On commencing the research, the researcher was known to most staff interviewed in Study 2 and some students who participated in Study 3 as Pro Vice-Chancellor (Students) and Acting Deputy Vice-Chancellor (Academic and Students). The researcher had extensive experience working on the educational reform and institutional change program within the remit of those university roles held, and in her former role as the Director of Student Services. The researcher's involvement in the educational reform spanned from the initial concept of a FYC and BM to implementation. The researcher was a member of a centralised whole-of-institution change management group responsible for designing various aspects of the reform and leading the changes across academic and professional service areas. In the final year of undergraduate BM implementation (i.e., the final year for all courses in 2020), the researcher was asked by the University to oversee the change management group and the final requirements to complete the BM implementation, in collaboration with other university leaders. Positioning the researcher is outlined in the following section.

Several measures were taken to ensure the ethical care of University staff and student participants in the qualitative studies. All ethics protocols connected to the recognition and minimisation of the influence of power relationships (NHMRC, 2007) were followed. The

researcher ensured distance between her occupation by always communicating via her official University student email account regarding the research study, including invitations and communications to staff and students who participated in the qualitative studies or to staff who assisted with data access for Study 1. All requests for expressions of interest to participate in the qualitative studies and voluntarily join an interview were facilitated via the researcher's student email account.

Due to existing power factors within the University, a Recruitment Protocol for Dependent or Unequal Relationship (see Appendix F) was developed to create a customised procedure for ensuring that a dependent or unequal relationship did not disadvantage or prejudice any participants in their voluntary participation in Study 2 and Study 3 (NHMRC, 2007). This protocol included a procedure for any potential conflict or perceptions of being an 'insider researcher' and included appropriate procedures that extended to the Principal Supervisor as the supervisor was also employed at the University (Mercer, 2007).

Potential staff and student interview participants were invited via email to voluntarily express their interest in participating in the research. A Participant Information Statement (PIS) was provided to staff for Study 2 (see Appendix G) and students for Study 3 (see Appendix H) with the email invitation. Staff who replied to the email indicating their interest in participating in the research were then provided with a Consent Form (see Appendix I) to be signed and returned prior to the interview. The form indicated that the participant had read and understood the nature of their participation in the research. The same process to obtain a signed Consent Form for students (see Appendix J) was undertaken with student participants who voluntarily indicated their interest in participating in the study. All interview participants were eighteen years of age or over.

All interview participants in Study 2 and Study 3 were provided with the opportunity to opt-out and withdraw consent for their participation in the research at any time, up until four

weeks following the data collection at the interview. Unwarranted pressure in deciding to participate (NHMRC, 2007) was avoided by inviting participants via email, allowing sufficient time for them to consider the request, ask questions and receive a response. A reminder email was sent to prompt staff participants, where appropriate. Reminder emails were also sent to students at least once, and under the guidance of the Principal Supervisor, subsequent reminder releases were required in certain cohorts to maximise sample representation. Written consent via email from both participant groups was confirmed prior to each interview proceeding.

Participants were provided with contact information to communicate directly with the researcher before or during the interview about any risks they may have been unsure about concerning the study. Participants also received clear information via the PIS on how their information would be collected, stored, published, and kept after the completion of the research project.

The Guide to Research Ethics in the Time of COVID-19 (VU, 2020) was adopted in the design and conduct of this research. This guide informed adjustments to the collection of data outlined at the ethics stage of the research for the remote and online conduct of participant interviews. Online data collection for Study 2 and Study 3 did not present any risks to the existing ethics approval related to areas such as confidentiality, privacy, data storage, and informed consent. For Study 1, the University's BIS and SMS teams ensured that appropriate data privacy and file transfer security protocols were applied to data files transferred electronically from the University to the researcher. A timeline summarising each phase of the data access/collection within the context of COVID-19 is at Appendix R.

## **Positioning the Researcher**

The researcher was acutely aware of the ethical factors associated with institutional research and the perceived view, at times, of holding insider researcher status (Mercer, 2007) when engaged by the institution at the commencement of this research. The internal engagement and associated ethical factors necessary for the research activities conducted within this research (Floyd & Arthur, 2012) were always front of mind for the researcher and the research supervisors. The researcher placed importance on adopting a reflexive approach when conducting the research (Fox & Allan, 2014; Holmes, 2020), in order to engage critically in the research project with colleagues. This approach also applied to the positioning of the research supervisors, who were both engaged by the University. Drake (2010) noted that doctoral research projects in a researcher's own workplace are not conducted in an impartial setting in the field of education due to the academic work environment often operating within a political context. The researcher's status changed throughout this research, and this is reflected on in Chapter Seven (see Reflections of the Researcher).

Reflexivity was critical because the researcher had experienced many aspects of the University's FYM and BM as a colleague alongside the research participants when engaged at the University. Reflexivity was of major importance when conducting the qualitative studies. According to Berger (2015), reflexivity is:

turning of the researcher lens back onto oneself to recognise and take responsibility for one's own situatedness within the research and the effect that it may have on the setting and people being studied, questions being asked, data being collected and its interpretation. (p. 220)



Practical measures were undertaken to maintain the vital balance between the participants' experiences and the researcher's own shared experiences. These measures included several reviews of notes taken during interviews, multiple inter-rater reliability assessments of interview transcripts from the qualitative studies, frequent discussions with the research supervisors, and consultation with University staff to enable impartial access to the data sources.

The researcher came from a shared experience position and was well-prepared with institutional insights, capable of understanding and questioning implied information, and had previous experience accessing and analysing certain aspects of institutional data (Berger, 2015). In addition to being in the shared experience position, the researcher was self-aware of being an insider at times during the research, the possible perception at times of others (participants, supervisors, peers), and of their own perceptions and biases as an insider researcher at times (Drake, 2010; Drake & Heath, 2008).

Mercer (2007) suggests that the boundaries of being either an insider or an outsider researcher are ever-changing, pervious, and impermanent. Advantages and disadvantages exist for both positions as does the value each position can provide to the research. The researcher's awareness of being in both positions was continuous throughout the project, depending on the research activity or context. The extent to which the researcher was classified as an insider researcher was not dependent on one characteristic, as many different characteristics had influence. For example, the status of the researcher's relationship with the interview participants fluctuated between insider and outsider researcher, constantly depending upon the participant, their profile, the topic of discussion and any existing established relationship (Mercer, 2007). Institutional power relations did not serve as a disadvantage in this research, and the researcher strived to create an environment of equality (Karnieli-Miller et al., 2009) and impartiality while conducting all research activities.

For the staff interview fieldwork settings, the researcher was aware of “impression management” (Aguilar, 1981, p. 20) and felt the position of being an outsider at times with some participants (e.g., senior academic leaders). At other times throughout Study 2 and Study 3, the researcher was on an “insider/outsider continuum” (Mercer, 2007, p. 4). As also noted by Hockey (1993), the nature of having an insider’s status can cause the researcher to have more expectations of them than a stranger, leading to assumptions made about knowledge. The researcher had this experience during some of the interviews (see Reflections of the Researcher (Chapter Seven)). The researcher always communicated with participants to inform them when this occurred and prompted participants with additional questions to collect the qualitative data adequately.

There were benefits as an insider researcher, including institutional knowledge, previous institutional research experience, known methods for data access, sampling and collection, established rapport with some research participants and, to some extent, the ability to construct meaning from the data (Hockey, 1993). As an insider researcher, institutional knowledge was beneficial when framing the research methods and guiding the prudent selection and application of mixed methods to examine the research aims. Utilising an outsider researcher perspective, the researcher could independently review the existing literature to further guide the mixed methods research design (see Chapter Two) and expand the evidence base on the success factors of the FYM and BM learning and teaching using a broader scope and range of perspectives.

The research was also enhanced by having research supervisors who also had inside knowledge gained from different engagements with the University, and who provided a deeper and shared frame of reference to interpret the data (Mercer, 2007). The research supervisors and the researcher had to challenge their own knowledge and perceptions, and these were debated together through discussions about their individual lived experiences. The

debate on various topics and aspects of the research at every stage were beneficial to the rigour of all three studies and the major findings.

The researcher noted self-reflections and observations of positionality during the research study and discussed these experiences with the research supervisors throughout the research. The researcher did so with the awareness that reflexivity informs positionality, which can be situational and dependent on the context (Holmes, 2020). Reflections of the researcher on completion of the research are discussed in Chapter Seven.

### **Summary**

This chapter described the research's design, methodology, definitions, data sources framework, data criteria, data access, targeted sampling procedures, and ethical considerations. A summary of the data for the target population and target sample was also presented and the positioning of the researcher was discussed. Chapter Four addresses the method, data analysis procedures, variables, and additional data sources required to conduct Study 1 (the quantitative study). Additionally, the results of Study 1 are presented and discussed.

## **Chapter Four: Study 1 – Quantitative Analysis and Presentation of the Data**

This chapter details the research method and procedure used for Study 1, which involved a quantitative study to address the research aims. This chapter details the data access, data preparation, data characteristics, data analysis, and the results, and provides a discussion of the research findings.

### **Method**

Study 1 was a quantitative study conducted within the realism perspective, placing importance on the results of the data analysis being real outcomes and phenomena that are context-dependent to the research aims and existing independently of any perception or construction (Sayer, 2010; Maxwell & Mittapalli, 2010; Williams, 2021). In mixed methods research design, realism provides the opportunity for the quantitative findings to be integrated with the findings from the qualitative studies to fully examine the research aims from multiple perspectives (Fetters & Molina-Azorin, 2017).

The quantitative study investigated the overall research aim and sub-aims, using institutional quantitative data collected and interpreted in light of the evidence, themes and perspectives that emerged from the literature review. The study analysed the research aims using the sample, population and data sources accessed (see Chapter Three) and used a set of variables that were developed to analyse the data sources.

The range of data analysis techniques is detailed in the data analysis section of this chapter. The analysis techniques were used to investigate any factors or significant variances in the data related to the academic success, student satisfaction and student retention variables when comparing the populations who studied in traditional mode with those who studied in the FYM and BM. Students from equity group backgrounds were included in the analysis of these populations. Graphical representations of the overall trends and findings are presented

for a selection of the results, where visual displays of the statistics support the communication and understanding of the data analysis and revealed patterns (Norris et al., 2012; Singh et al., 2008). SPSS data was exported directly from SPSS to MS Excel, wherein the Charts feature was used to produce the graphical data representations.

Additional data sources to those outlined in Chapter Three were required for the quantitative study to examine student satisfaction. This data was accessed from student survey responses stored in the University's BIS. The survey instruments and the process to access the additional data are explained further in the data access section of this chapter. The researcher received ethical approval for the quantitative method and procedures described in this chapter (see Chapter Three).

### ***Variables and Data Sources***

The dependent variables were analysed against a range of independent variables via a three-phased quantitative analysis study to examine the research aims. A summary of the phases, variables and data sources for the quantitative study are outlined in Table 3.

**Table 3***Study 1: Summary of Variables and Data Sources*

Three-phased Quantitative Analysis of the Research Aims	Dependant Variables	Definition and Data Source	Independent Variables
<p>Phase 1 – Academic Success: determine the aspects of FYM and BM, in comparison to the traditional model, that have had an impact on academic success for first-year undergraduate students, across multiple disciplines and equity group cohorts.</p>	<p>Unit:  <ul style="list-style-type: none"> <li>• Unit of Study Grade (USG):</li> <li>- USG-Pass/Fail (P/F)</li> <li>- USG-Mark (M)</li> <li>- USG-Grade Distribution (GD)</li> </ul> </p>	<p>The frequency of pass or fail grades (USG-P/F) and mark (USG-M) achieved by all students from the target population and sample (i.e., TMG, IBG, SBG), and the overall changes in grade distribution (USG-GD), compared for each group and cohort.</p>	<ul style="list-style-type: none"> <li>• Groups 1-3</li> <li>• Academic discipline</li> <li>• Unit</li> <li>• Equity group status</li> <li>• Domestic status</li> </ul>
<p>Phase 2 – Student Satisfaction: evaluate the influence of FYM and BM on student satisfaction for first-year undergraduate students, across multiple disciplines and equity group cohorts.</p>	<p>Unit:  <ul style="list-style-type: none"> <li>• Student Evaluation of Unit Result (SEUR)</li> </ul> </p>	<p>The 5-point Likert scale satisfaction score to the first item of the University’s Student Evaluation of Unit (SEU) survey, as rated by students from the sample and population, compared for each group and cohort.</p>	<ul style="list-style-type: none"> <li>• Groups 1-3</li> <li>• Units</li> </ul>

Three-phased Quantitative Analysis of the Research Aims	Dependant Variables	Definition and Data Source	Independent Variables
Phase 3 – Student Retention: determine the aspects of FYM and BM, in comparison to the traditional model, that have had the most impact on student retention for first-year undergraduate students, across multiple particular disciplines and equity group cohorts.	<p>Course:</p> <ul style="list-style-type: none"> <li>• Student Experience Survey Result (SESR)</li> </ul> <p>Course:</p> <ul style="list-style-type: none"> <li>• Retention Indicator (RI)</li> </ul>	<p>The 4-point and 5-point Likert scale satisfaction scores to eight select items from the ‘teaching quality indicator’ (TQI) within the Australian Student Experience Survey (SES), as rated by the ‘SES target population’ (see below section) of first-year students for Groups1-3, compared for each group.</p> <p>A unit completion recorded for unique students from the target population and target sample, for their course of study in the Semester 1 period of the following year (i.e., second year studies), compared for each group and cohort.</p>	<ul style="list-style-type: none"> <li>• Groups 1-3</li> </ul> <ul style="list-style-type: none"> <li>• Groups 1-3</li> <li>• Academic discipline</li> <li>• Equity group status</li> <li>• Domestic status</li> </ul>

The USG and RI variables were analysed from data sources accessed from the SMS (see Chapter Three). Student satisfaction was analysed from the unit and course perspective. The SEUR variable was analysed from additional data sources accessed from the BIS (see Data Access section below). The SEU survey is administered internally as an online survey at the University and released to students at the conclusion of each unit and teaching period (VU, 2022a). In the survey, students are asked to express their views about their experience in relation to a particular unit that they completed during that teaching period. Satisfaction ratings scored by the sample for one item of the SEU were used for this variable. This SEU survey item was identified and selected as being relevant to the research in investigating overall student satisfaction at the unit level, and the association each unit had with an academic discipline. The decisions to identify and select the appropriate item were made in consultation with the Principal Supervisor. The SEU survey item and associated five-point Likert scoring scale used to measure the satisfaction of students through their responses (Rea & Parker, 2014) is shown in Table 4 below:

**Table 4**

*SEUR Variable Detail*

Item for SEUR Variable	SEU Scoring Scale
Overall, I am satisfied with	1 = Strongly Disagree
the quality of this unit.	2 = Disagree
	3 = Neutral
	4 = Agree
	5 = Strongly Agree

The SESR variable was analysed using additional data sources accessed from the BIS (see Data Access below). The SES is an externally administered survey conducted nationally by



the Australian Government each year as part of the Quality Indicators for Learning and Teaching (QILT) survey program (QILT, 2022). The SES is the only wide-ranging survey that measures aspects of learning and development connected to the FYE. The survey measures student perceptions regarding the quality of teaching and overall satisfaction for a target population of first-year undergraduate students enrolled in Australian HE institutions (QILT, 2021; Social Research Centre, 2021). The SES target population includes a sample of commencing onshore undergraduate coursework students enrolled in their course for at least one full teaching period by 30 July of that year (e.g., one semester or one trimester) (the “SES target population”). Randomly selected first-year students within the sample are typically approached part way through their first year of study (i.e., around August at the start of the Semester 2 teaching period (or block equivalent)) to provide their perspectives on their course and their FYE.

Student satisfaction scores from the select sample of eight items associated with the QILT SES ‘teaching quality indicator’ (TQI) (QILT, 2022) were identified and selected as appropriate to address the research aims (see Table 5). These items are associated with the first year of the ‘course of study’. The decisions to identify and select items (i.e., the SES survey questions) were made in consultation with the Principal Supervisor to develop the SESR variables. The SES survey items used two different Likert rating scales, as shown in Table 5. The student satisfaction scores for each item were used to represent the SESR variable and conduct the analysis.

**Table 5***SESR Variable Detail*

Select SESR Variables (TQI)	SES Scoring Scale
Item 1: Thinking about your course: overall how would you rate the quality of your entire educational experience this year?	1 = Poor 2 = Fair 3 = Good 4 = Excellent
Item 2: Thinking about your course: how would you rate the quality of the teaching you have experienced?	1 = Poor 2 = Fair 3 = Good 4 = Excellent
Item 3: In <year of survey>, to what extent has your course been delivered in a way that is: well structured and focused?	1 = Not at all 2 = Very little 3 = Some 4 = Quite a bit 5 = Very much
Item 4: During <year of survey>, to what extent have the lecturers, tutors and demonstrators: engaged you actively in learning?	1 = Not at all 2 = Very little 3 = Some 4 = Quite a bit 5 = Very much

Select SESR Variables (TQI)	SES Scoring Scale
Item 5: During <year of survey>, to what extent have the lecturers, tutors and demonstrators: demonstrated concern for student learning?	1 = Not at all 2 = Very little 3 = Some 4 = Quite a bit 5 = Very much
Item 6: During <year of survey>, to what extent have the lecturers, tutors and demonstrators: set assessment tasks that challenge you to learn?	1 = Not at all 2 = Very little 3 = Some 4 = Quite a bit 5 = Very much
Item 7: During <year of survey>, to what extent have the lecturers, tutors and demonstrators: provided clear explanations on coursework and assessment?	1 = Not at all 2 = Very little 3 = Some 4 = Quite a bit 5 = Very much
Item 8: During <year of survey>, to what extent have the lecturers, tutors and demonstrators: commented on your work in ways that help you learn?	1 = Not at all 2 = Very little 3 = Some 4 = Quite a bit 5 = Very much

## **Procedure**

### ***Data Access***

The USG data sources were accessed from the SMS (see Chapter Three). Additional data access was required to analyse the RI variable. The same set of data fields requested for USG were used for the RI data access request, to match the unique student identifiers and course of study for the purposes of analysing student retention outcomes. Enrolment data sources for the Semester 1 teaching period (or BM equivalent) of the subsequent academic year, for each of the unique student identifiers from the USG data sources for Groups 1-3, were requested from the SMS department. For example, access to data sources was requested for 2018 enrolment data related to Group 1 of the target population (i.e., the 2017 TMG), being the subsequent academic year of study. This process was repeated for all three groups to provide three discrete sets of data sources for each subsequent academic year and provided the additional data sources needed to analyse the retention outcomes. The RI data sources for the unique student identifiers only contained data for those students that had a ‘unit attempt’ status for each subsequent group’s academic year, meeting the data criteria for analysis of the RI variable.

In addition to the above data accessed from the University, the Australian Government Higher Education Statistics (HES) (Department of Education, 2022) were used to compare the USG and RI findings with publicly reported (online) government data for the University’s full-year commencing undergraduate population against sector performance. The annual HES report details a range of student statistics at the national, state, and institution levels, using data collected from Higher Education Institutions (HEIs) approved under the Higher Education Support Act 2003 (Department of Education, 2022). The HES cohort was defined as the entire commencing student population in bachelor studies for each group’s year of study (i.e., 2017, 2018, and 2019). The ‘Selected Higher Education Statistics – 2020 Student

data' set for commencing bachelor students was accessed (DESE, 2022) from the online repository to view the publicly published data finalised by DESE in December 2021. This data was the most current data at the time of analysis that was relevant to this research, and contained historical data published from 2017 to 2020 to analyse the University's population, group, and sector comparisons. For the national benchmark, comparison data was reviewed from equivalent public universities (i.e., 'Table A Providers' only). Only equivalent public universities in the state of Victoria were used for the state benchmark. The access and utilisation of national and state HES data supplemented the findings of Study 1 and the discussion of those findings (see Discussion section in this chapter).

The data required to analyse SEUR and SESR was accessed from the University BIS department using the same processes detailed for the SMS data access (see Chapter Three) under the guidance of the Principal Supervisor. As with the SMS data access, the researcher established a transparent process with the University's BIS department to manage any perceived or potential conflict of interest (NHMRC, 2007) and provided access to the approved research ethics documentation for BIS data access. The University department responsible for the BIS appointed a senior coordinator for the researcher to work with directly. The senior coordinator was offered the Principal Supervisor's contact information for an independent discussion, if required, before approving the request and releasing the data.

To accurately guide the access of data sources for SEUR and SESR from the BIS, a data request guide was developed (see Appendix B: attachment 1). The researcher's institutional knowledge of the surveys was advantageous in guiding the data access. The senior coordinator reviewed the data access request, followed up with questions to clarify the data required to meet the research aims, facilitated the data access, and approved the data for release to the researcher. A series of data filters were applied by the BIS senior coordinator

when extracting the data relevant to the SEUR and SESR variables for the researcher. These filters are detailed in Appendix K.

The SEUR and SESR data was provided to the researcher via a secure file sharing application with access privileges provided to the researcher. On receipt of the data, the researcher corresponded via email with the senior coordinator to: (a) confirm the data requirements; (b) ask any clarifying questions of the data provided; and (c) confirm the data met the research aims. All data received was reviewed on several occasions with the Principal Supervisor, for validation, completeness, and trial testing to confirm the data would fulfil the requirements for examining the research aims.

It was found during the analysis of the SEUR and SESR data that the BIS department had pseudo-anonymised the student identifier data before providing the researcher with the data sources. This change meant that the SEUR data sources could not be compared and matched by student identifier to the unique student identifiers used in the USG and RI data sources. This precluded the use of these data sources to analyse student equity groups and the international student cohort when analysing student satisfaction in relation to a unit (SEUR). The researcher verified the criteria of the SEUR data sources with the University's BIS department to confirm the data characteristics and alignment to those specified for USG and RI (see Chapter Three). The department confirmed that all students actively enrolled in a unit in the teaching period at the time that survey fieldwork commenced were included. The selection of students for the SEU sample occurs two days after the enrolment census date and the survey fieldwork takes place at approximately week 2-3 of a block unit and before the end of the block (week 4 of the teaching period). The researcher was advised by the University of a potential discrepancy in data (considered unlikely/minor) related to the potential for withdrawn or discontinued students (post the official enrolment census date) to be included in

the survey. This is due to potential discrepancies that may arise between the University's survey platform and the live enrolment data in the SMS.

### ***Data Preparation***

The University's institutional data, collected from the SMS and BIS, was reviewed, cleaned, and transformed to appropriately construct a final data set for analysis (Pallant, 2003). These processes ensured the data was accurately ingested into the SPSS statistical software program from multiple access sources. This process was undertaken in addition to those outlined in Chapter Three for classifying data to establish the status for student equity groups and to analyse the target population and target sample.

A coding scheme was developed to: (a) code categorical data values; (b) perform data transformations in SPSS to conduct the quantitative analysis; and (c) present the results of analysis consistently across the different variables (Bhattacharjee, 2012). The detailed coding scheme and the data transformations for the analysis and presentation of the results are presented in Appendix L. The SMS and BIS data sources were transformed in SPSS to establish numerical values that aligned with the specific quantitative analysis undertaken. Alpha labels that clearly represented the data sources were applied to each variable. All categorical data variables in Study 1 were coded appropriately for the method of data analysis. The USG-M mark data was prepared and transformed to a grade result first in MS Excel using VLOOKUP (Microsoft, 2018), prior to importing the data into SPSS (Norris et al., 2012; Pallant, 2003). The following grade result codes used by the University for graded assessment were applied for use in the USG-GD data analysis: F (Fail), P (Pass), C (Credit), D (Distinction), HD (High Distinction) (VU, 2022d). One change was made to the University's coding label for fail grades (i.e., N) to present the data consistently throughout the research study and report analysis results using F as the unit fail grade code.

On review of the total data sources prior to use in the analysis, it was found that 57 did not have NESB data, 54 did not have First Nations data, and 760 did not have LSES data. The LSES data sources included 755 international student data sources not applicable to socio-economic status categories (as outlined in Chapter Three). Where no data was available to categorise student equity groups, a 'null data' value was applied.

### **RI Variable Data Sources**

As already described, the unique student identifiers for each group were used to access enrolment data for the same unique students in the subsequent academic year (Semester 1 or BM equivalent study period). The data access provided the researcher with three discrete data sets for each of the subsequent years of study, for each of the three target groups. The same targeted sampling procedures described in Chapter Three were applied to accurately filter the data to meet the data criteria requirements and support the research aims.

The data was then prepared and analysed in MS Excel. The unique student identifiers for Groups 1-3 were used to match the same unique student identifier with enrolment records in each subsequent academic year. Firstly, the three discrete sets of data sources for each group's subsequent study year were reviewed by the researcher. An additional data field was created to distinguish the RI Year for each discrete group data set provided. For example, the Group 1 TMG (2017) data sources that were evidenced in the 2018 academic year enrolment records to have completed a unit in this subsequent year were given an indicator of 'RI Year=2018' to distinguish these RI data sources as belonging to Group 1. This data cleaning was repeated for all three groups in MS Excel, and the data was then consolidated to provide a complete set of RI data sources prior to analysis in SPSS (Pallant, 2003).

The consolidated data sources were then further analysed to review any enrolment data sources where students completed a unit in a different course the following year. These



records were identified through the unique student identifier compared with the commencing academic year data identifier. Where matches were not found for the commencing academic year for Groups 1-3 of this research, these data sources were removed for the analysis of the RI variable as they were found to be for a different course, commencing in another year, and therefore did not meet the research criteria for 'same course'. A review of these records identified a total of 123 unique students for all three groups (or 410 data sources) associated with a different course of study. The final RI data set was then imported into SPSS for analysis against the Group 1-3 data set used for USG.

### **Data Characteristics**

In addition to the summary of data sources for the target population and target sample detailed in Chapter Three, other distinguishing profiles of the data sources became evident in the review of data accessed for Study 1 analysis. As explained in Chapter Three, not all data sources are unique to a student. Therefore, the data used and presented in Study 1 does not represent unique students but 5,582 unit enrolments for 3,549 unique students.

The three groups analysed in Study 1 had the characteristics described in the sections below. Table 6 presents a high-level summary of the groups and academic discipline data sources examined in Study 1.

**Table 6***Groups and Academic Discipline Data Sources*

Academic Discipline	Group 1 (TMG)	Group 2 (IBG)	Group 3 (SBG)	Total Target Population	
	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	%
Arts and Ed	354	215	182	751	13%
Business	578	356	461	1,395	25%
Sport	71	147	158	376	7%
Engineering	92	90	95	277	5%
Law	215	115	146	476	9%
Health	707	889	711	2,307	41%
Total Data Sources	2,017	1,812	1,753	5,582	
% Proportion of Total Data Sources	36.1%	32.5%	31.4%		

***Unique Students from Equity Group Backgrounds***

The student equity group status data sources are summarised in Chapter Three for each academic discipline and unit. The unique students with equity group status that were analysed in Study 1 are outlined in Table 7.

**Table 7***Groups and Proportion of Unique Students with Equity Group Status*

Equity Group Status	Group 1 (TMG)	Group 2 (IBG)	Group 3 (SBG)	Total Target Population (Equity Group Status)
	<i>N</i>	<i>n</i>	<i>n</i>	<i>n</i>
SWD	59	61	88	208
NESB	477	448	478	1,403
LSES	203	227	198	628
First Nations	9	4	4	17
All unique students	1,312	1,131	1,106	3,549
Unique students with equity status	748	740	768	2,256
Equity status proportion of all unique students	57%	65%	69%	64%

***Student Gender Identities***

Students who identified as female represented 61% of all data sources and 39% of the cohort identified as male. A higher percentage proportion of females was consistent across all groups (59%, 63% and 61% for the years 2017, 2018, and 2019 respectively). Female students were predominantly represented in the Health academic discipline (34% of the total data sources). Data sources within the Business academic discipline represented the most students who identified as male in any cohort (14% of the total data sources). Students who identified as gender X (defined by as students who self-identified as neither male nor female (VU, 2022c)) only accounted for a small number of data sources ( $n = 7$ ).

### ***Birth Countries of Students***

The largest proportion of the total data sources were indicated as being born in Australia (62%) from the student records, with 38% proportion born overseas (38%). There was no substantial variation in these percentages for each of the three groups (i.e., the academic years).

### ***Languages Spoken by Students from NESB***

The analysis of the data sources showed that students who undertook studies within the target population and sample came from a diverse range of non-English speaking backgrounds (41.3% of all data sources). However, the majority of students came from English speaking backgrounds. The diversity of students from NESB backgrounds was evident, with 103 different languages recorded in the data sources. The Punjabi and Vietnamese languages combined represented 8% of the 'other' language groups overall. The Arabic language was represented more within the Business, Sport, Engineering, and Law academic disciplines (1-5%), and the Nepali language was represented more highly (5%) in the data sources within the Health discipline. International students accounted for 26.8% ( $n = 376$ ) of unique students from NESB equity group status in Study 1.

### ***International and Domestic Status of Students***

The total data sources included 86% domestic student records ( $n = 4,827$ ) and 14% international student records ( $n = 755$ ). These records equated to 3,056 unique domestic students and 493 unique international students at the same percentage split as the data sources.

The largest proportion of international students compared with domestic students within the data sources was evidenced in the Engineering academic discipline (22%), followed by

the Business (21%), then the Health (16%) academic disciplines. All other academic disciplines had low percentages of international students in the data sources (2-4%).

## **Data Analysis**

This section describes the data analysis techniques used to analyse the variables detailed in the earlier method section. The data analysis used both descriptive and inferential statistics to draw conclusions about the target sample and data sources and evaluate the population's characteristics from the sample (McGregor, 2018; Sayer, 2010). The analysis was conducted using IBM SPSS software, and MS Excel was used to produce a graphical representation for select findings to provide an informative presentation of the data (Balnaves & Caputi, 2001).

For each variable, the data analysis examined the independent variables commencing at the group level (Mat Roni et al., 2020). Overall changes in the dependent variables, compared to each independent variable, were analysed to present the data for each of the three analysis phases. The independent variables were examined to determine any significant differences between the dependent variables. A comparative group analysis of the dependent and independent variables provides detail of the overall trends and an inferential pattern of the results (Sayer, 2010). A summary of each analysis phase and the data analysis techniques used in Study 1 is detailed in Appendix M.

The Select Cases functionality was applied in SPSS (Pallant, 2003) to exclude students with an international socio-economic identifier for the analysis of domestic student status for all USG and RI variables and the LSES equity group status within each of those variables. This process removed international students from the analysis of students from LSES backgrounds. All chi-square tests used to analyse the data and present the results refer to the Pearson chi-square test of independence, which is deemed appropriate for contemporary studies in social science (Williams, 2021).

### ***Phase 1: USG (Academic Success)***

Academic success was measured by three dependent variables associated with the USG. Specifically, the frequency of pass and fail grades, the mark given to students for the selected units, and the overall changes in grade result distribution. Comparisons were examined between the independent variables. Three methods of analysis were applied to conduct the analysis of the USG variable and examine the findings for academic success, as detailed in the following sections.

#### **Analysis 1: USG-P/F**

The two categorical variables of pass (P) and fail (F) were used to analyse the independent variables. Descriptive statistics using cross-tabulation was used to examine the frequency of grade results between the groups, using the dependent variable of P or F, and to analyse the differences between the independent variables. A chi-square test of independence was performed to examine the relationships between the independent variables and the P or F grade categories and the differences among proportions in each group. Due to the two dependent values containing more than two categories (i.e., three groups for TMG, IBM and SBG) within the independent variables, the Cramér's  $V$  non-parametric test was applied to measure and reveal the size of the effect and the strength of association between the categorical variables (Field, 2009; Mat Roni et al., 2020). Given that SPSS computes the Cramér's  $V$  statistic as an output of the chi-square statistic, the significance of Cramér's  $V$  is the same as the chi-square (McHugh, 2018). This relationship was consistently shown to be true in all data analysis using the Cramér's  $V$  technique, and for this reason, the significance of Cramér's  $V$  is not reported in the Results section as the  $p$  value was identical to the chi-square  $p$  value.

Acknowledging the variances that exist when researchers and authors use different values for correlation measures (McHugh, 2018), this study adopted the Rea and Parker's (2014) measurement scale for interpreting the Cramér's  $V$  statistic. The scale was further contextualised to the research aims of this study, as outlined in Table 8.

**Table 8**

*Interpretation Scale for the Calculated Cramér's  $V$  Statistic*

Value	Interpretation of Association
.00 and under .10	Negligible
.10 and under .20	Weak
.20 and under .40	Moderate
.40 and under .60	Relatively strong
.60 and under .80	Strong
.80 to 1.00	Very strong

### **Analysis 2: USG-M**

The dependent variable of student mark (M) for the unit was used to analyse the independent variables. A univariate General Linear Model (GLM) one-way samples ANOVA, using descriptive statistics, examined the differences between the independent variables, analysed the mean student mark, and compared the effect size of the independent variables (Bhattacharjee, 2012). The Select Cases functionality in SPSS was used to filter independent variable data for analysis.

### **Analysis 3: USG-GD**

This analysis used the same methods described above in Analysis 1, to examine grade result distribution. The categorical dependent variable data of grade results (i.e., N, P, C, D, and HD) was used to analyse the independent variables.

#### ***Phase 2: SEUR and SESR (Student Satisfaction)***

Student satisfaction was measured with the SEUR (unit) and SESR (course) dependent variables. The ordinal data recorded from student survey responses, scoring student satisfaction using the Likert scale applied to each of the survey items (Mat Roni et al., 2020; Wu & Leung, 2017), was used to analyse the variables described below at Analysis 4 (SEUR) and Analysis 5 (SESR). Using SPSS, the categorical mean scores for both variables were calculated from the total student satisfaction scores from the sample data (Norris et al., 2012), associated with either the groups or units to ‘estimate overall characteristics of the entire sample’ (Bhattacharjee, 2012, p. 70). The categorical mean scores analysed in SPSS for the SEUR and SESR variables, using the parametric and non-parametric tests described below, were applied throughout the analysis of these variables, and used in the presentation of the results. The categorical mean scores for SEUR and SESR variables are represented in the statistical analysis throughout this study as the mean (*M*).

### **Analysis 4: SEUR**

The 5-point Likert scale satisfaction scores for the SEUR variable were used to analyse the independent variables using three analysis techniques. First, a parametric one-way ANOVA to compare the mean rank of the overall survey responses was used to analyse the variances between the groups and the units, applying the Select Cases functionality in SPSS to filter independent variable data for analysis. Secondly, a non-parametric Kruskal-Wallis test was used to test if the SEUR categorical mean score of the three groups was significantly different



(Mat Roni et al., 2020; Wu & Leung, 2017). The Kruskal-Wallis test also analysed any significant difference between the units in each of the groups for the SEUR variable, using the SEUR categorical mean score. Finally, pairwise comparisons were analysed using the Kruskal-Wallis test to examine and report on any significant differences between the target population groups, and the SEUR categorical mean score. The Kruskal-Wallis test of pairwise comparisons consistently examined Group 1 and Group 2 (TMG and IBG groups), Group 2 and Group 3 (IBG and SBG groups), and Group 1 and Group 3 (TMG and SBG groups) in all analysis conducted.

### **Analysis 5: SESR**

The 4-point and 5-point Likert scale satisfaction scores for the SESR variable were used to analyse the differences between the SES target population groups of each academic year associated with Groups 1-3 (i.e., commencing first-year undergraduate students in 2017, 2018, and 2019). This analysis used the same methods described above in Analysis 4 for the groups. The analysis was conducted for all eight survey item responses for the SESR satisfaction score associated with the first year of a course of study. Each survey item was analysed to determine any differences between the groups.

### ***Phase 3: RI (Student Retention)***

Student retention was measured using the RI dependent variable to analyse the occurrence of a student returning to study in the subsequent academic year for Groups 1-3, and the comparisons between the independent variables were examined. The following method of analysis was applied to conduct the analysis of the RI variable and examine the findings for student retention, comparing the USG and RI data sets.

## **Analysis 6: RI**

The nominal data for the RI categorical variable was coded in SPSS (from the preparation of data conducted in MS Excel (see earlier Data Preparation section in this chapter) to analyse the independent variables. Using SPSS, the Identify Duplicate Cases functionality was first applied to a copy of the USG data set to identify Primary Cases only of unique student identifiers for each group (not all instances of a unit enrolment). The first case was indicated as a primary case with a value of '1', and all other cases with a value of '0' to prepare for the analysis of primary cases only.

Using the Compare Datasets functionality in SPSS, the USG and RI data sets were analysed to indicate if the data sources in Groups 1-3 had continued in the subsequent academic year. A new variable was created in the analysis and labelled "RI" to return a retention value from the analysis of the compared data sets. Primary cases that returned a matched case value of '0' for the RI variable identified a matched case between the data sets (i.e., student was evidenced to have returned to study in the same course in the subsequent year). Cases that returned a value of '-1' for the RI variable identified an unmatched case (i.e., student was not found to have returned to study in the data set for the subsequent year).

Using the SPSS Select Cases functionality, all primary case data sources were then filtered for inclusion in analysis of the RI variable for each group to examine re-enrolment patterns in the subsequent academic year. As the two dependent values contained more than two categories within the independent variables, the same analysis method used in Analysis 1 (USG-P/F) was applied to examine the frequency of students being retained between the groups. The dependent variable of RI was used to analyse the differences between the independent variables.

## Results

This section is structured to present the data in alignment with the overall research aim and research sub-aims in the three-phased evaluation (see earlier Method section in this chapter) for academic success (phase 1), student satisfaction (phase 2) and student retention (phase 3). The results of the analysis are presented in order of these three phases of evaluation.

Descriptive statistics are presented for the variables of the target sample and data sources. Inferential statistics provide analysis findings about the population, using sample statistics obtained from the target population, sample, and data sources. The following notes apply to the data analysed and to the presentation of all results in this section:

- All numbers and statistics reported in the data results have been rounded to decimal points in accordance with APA Style (American Psychological Association, 2022).
- As identified earlier in this chapter, the data sources analysed and presented in this section do not represent unique students.
- As highlighted earlier, five domestic student data sources were found to contain invalid socio-economic information during the data cleaning process. These data sources were excluded from the analysis of LSES and the comparison with all other students (for all variables).
- During the analysis of the data sources, it was found that 18 data sources contained null values ('-') for Mark. While Null values were excluded in all analysis of USG-M, they were included in the analysis of USG-GD and coded as a fail grade (consistent with the unit 'result' recorded in the SMS for each record).
- The sample size for First Nations student data sources was small ( $n = 19$ ).
- All reported percentages from the data analysis reflects the percentage within each group relevant to the variable (i.e., students, grade result etc.).

A critical friend was identified by the Principal Supervisor to review the quantitative data analysis and results with the researcher, and to provide constructive and supportive feedback (Kember et al., 1997). The critical friend was selected for their senior academic and research expertise in statistical analysis, their experience within the University at the centre of the research, and their knowledge of the University's educational reform. Thorough and thought-provoking feedback was provided to the researcher during the advanced drafting stage of the data analysis and results sections of this chapter.

### ***Phase 1 Results: USG (Academic Success)***

The findings from the analysis of the USG-P/F, USG-M and USG-GD variables are presented in this section.

#### **USG-P/F (Pass or Fail)**

Pass or Fail unit grade results in each of the figures presented in this section are represented as a percent proportion of student grades within the groups.

#### ***Groups***

The chi-square test of independence showed that there was a significant association between the P and F variables and the groups for each academic year ( $X^2(2, N = 5,582) = 229.11, p < .001$ ). A significant percentage change was evident for each consecutive group when comparing the two dependent variables of P and F. The Cramér's  $V$  statistic was .20, representing a moderate association between the groups and the P and F grades.

As shown in Table 9, an increase in pass grades percentages was reported for Group 2 and Group 3, when compared to Group 1. The greatest increase in pass grade percentages was from Group 1 to Group 3 (16.7pp). Pass grade percentages also increased 14pp from Group 1 to Group 2.

**Table 9***USG-P/F Comparison by Groups*

Groups	USG-P/F			
	P		F	
	<i>n</i>	%	<i>n</i>	%
Group 1-TMG	1,494	74.1	523	25.9
Group 2-IBG	1,597	88.1	215	11.9
Group 3-SBG	1,591	90.8	162	9.2

***Academic Disciplines***

The chi-square test of independence showed that there was a significant association ( $p < .001$ ) between the P and F variables and the groups for all academic disciplines, except for Engineering ( $p = .266$ ) as presented in Table 10. The Cramér's  $V$  statistic varied between the academic disciplines and the groups. A weak association was reported for Engineering, Law, and Health. Sport reported a relatively strong association, while all other academic disciplines reported a moderate association between the groups and disciplines.

All academic disciplines reported an increase in pass grade percentages between Group 1 and Group 2. The most significant change in P and F grades occurred in Sport, with a reported 38.3pp increase in pass grades between Group 1 and Group 2, and an associated decrease in the percentage point of fail grades. All other academic disciplines reported a moderate change in pass grades between Group 1 and Group 2, except for Law, which reported the smallest increase of 4.2pp. Only Law and Health reported a further increase of pass grade percentages in the subsequent Group 3, while all academic disciplines continued to maintain pass grade percentages in Group 3 above the Group 1 results. All other academic disciplines reported a minor reduction in pass grade percentages in Group 3, when compared to the Group 2 results.

**Table 10***USG-P/F Comparison by Academic Discipline and Groups*

Academic Discipline and Groups	USG-P/F							
	P		F		Chi-Square			Cramér's <i>V</i>
	<i>n</i>	%	<i>n</i>	%	<i>X</i> <sup>2</sup>	<i>df</i>	<i>p</i>	<i>V</i>
Arts and Ed					32.45	2	<.001	.21
Group 1-TMG	279	78.8	75	21.2				
Group 2-IBG	203	94.4	12	5.6				
Group 3-SBG	166	91.2	16	8.8				
Business					74.84	2	<.001	.23
Group 1-TMG	379	65.6	199	34.4				
Group 2-IBG	305	85.7	51	14.3				
Group 3-SBG	392	85.0	69	15.0				
Sport					62.74	2	<.001	.41
Group 1-TMG	38	53.5	33	46.5				
Group 2-IBG	135	91.8	12	8.2				
Group 3-SBG	144	91.1	14	8.9				
Engineering					2.65	2	.266	.10
Group 1-TMG	17	83.7	15	16.3				
Group 2-IBG	82	91.1	8	8.9				
Group 3-SBG	85	89.5	10	10.5				
Law					8.19	2	.017	.13
Group 1-TMG	176	81.9	39	18.1				
Group 2-IBG	99	86.1	16	13.9				
Group 3-SBG	135	92.5	11	7.5				
Health					86.64	2	<.001	.19
Group 1-TMG	545	77.1	162	22.9				
Group 2-IBG	773	87.0	116	13.0				
Group 3-SBG	669	94.1	42	5.9				

## *Units*

The chi-square test of independence showed a significant association ( $p < .001$ ) between the P and F variables and the groups for all units, except for the four units associated with Engineering and Law disciplines (as shown in Table 11). Programming and Communication Management reported values of  $p = .504$  and  $p = .265$  respectively for the Engineering discipline, while Legal System and Legal Research reported values of  $p = .258$  and  $p = .052$  respectively for the Law discipline.

The Cramér's  $V$  statistic varied between the units and the groups. A weak association was reported for the units taught by the Law and Engineering academic disciplines. A relatively strong association was reported for Human Physiology. All other units reported a moderate association between the groups and units, as reported in Table 11.

**Table 11**

*USG-P/F Comparison by Unit and Groups*

Unit	USG-P/F			
	Chi-Square			Cramér's $V$
	$X^2$	$df$	$p$	$V$
Sociology	13.94	2	<.001	.24
Professional Learning	31.83	2	<.001	.25
Information Systems	36.93	2	<.001	.23
Economic Principles	31.40	2	<.001	.21
Structural Kinesiology	16.79	2	<.001	.30
Human Physiology	50.18	2	<.001	.52
Programming	1.37	2	.504	.10
Communication Management	2.65	2	.265	.14
Legal System	2.71	2	.258	.11

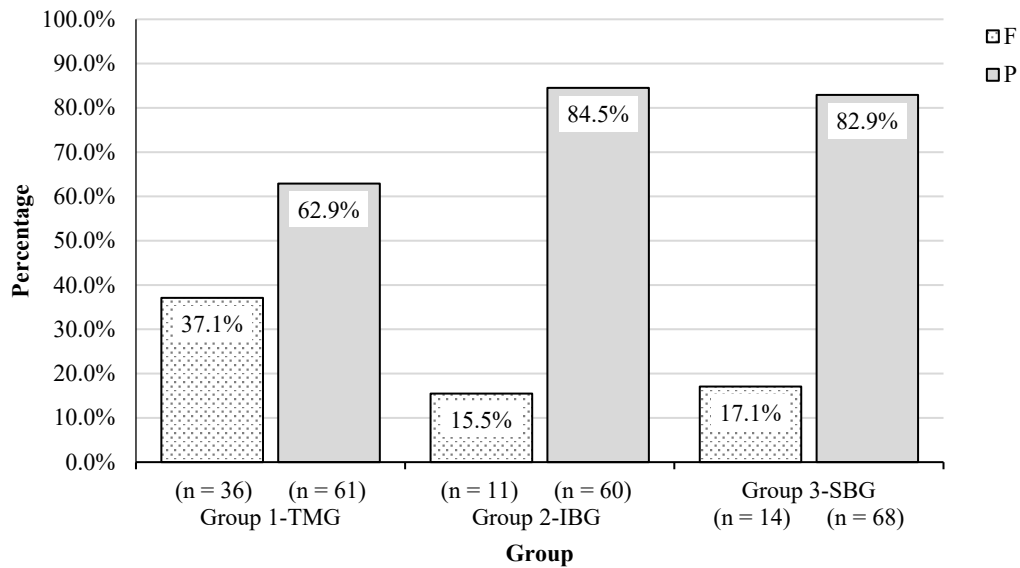
Unit	USG-P/F			
	Chi-Square			Cramér's <i>V</i>
	<i>X</i> <sup>2</sup>	<i>df</i>	<i>p</i>	<i>V</i>
Legal Research	5.91	2	.052	.15
Indigenous Health	51.14	2	<.001	.22
Professional Studies	49.00	2	<.001	.20

All units reported an increase in pass grade percentages between Group 1 and Group 2, and an associated decrease in the percentage point of fail grades. Half of the twelve units reported continued increases in pass grade percentages from Group 2 to Group 3 (Economic Principles, Human Physiology, Communication Management, Legal System, Legal Research, and Indigenous Health). While five of the 12 units did not report increases between Group 2 and Group 3, all units maintained pass grade percentages rates in Group 3 that were above Group 1. A graphical representation of the findings is shown in Figures 1-12.



**Figure 1**

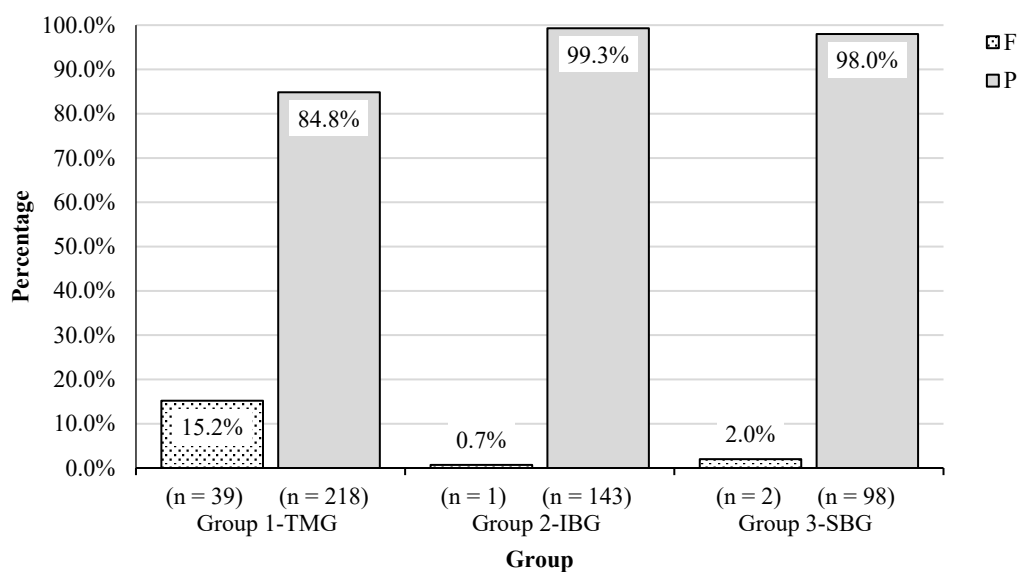
*USG-P/F Comparison by Unit (Sociology) and Groups*



For Professional Learning, the greatest increase in pass grade percentages was between Group 1 and Group 2 (14.5pp). Fail grade percentages reduced by 13.22pp from Group 1 to Group 3 (see Figure 2).

**Figure 2**

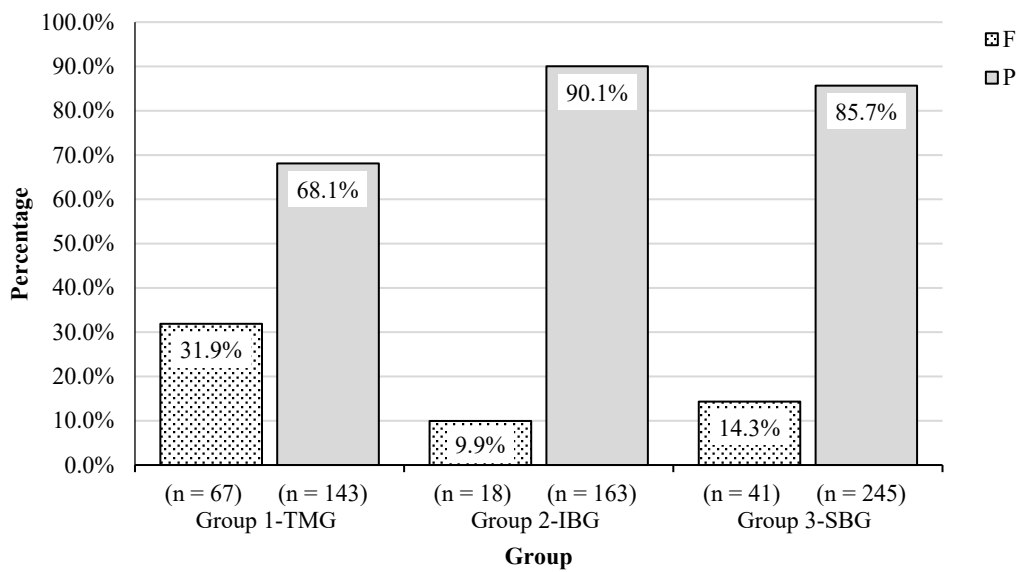
*USG-P/F Comparison by Unit (Professional Learning) and Groups*



Pass grade percentages were increased significantly between Group 1 and Group 2 (22pp) for Information Systems, and pass grades were maintained in Group 3 at a percentage greater than Group 1 (see Figure 3).

**Figure 3**

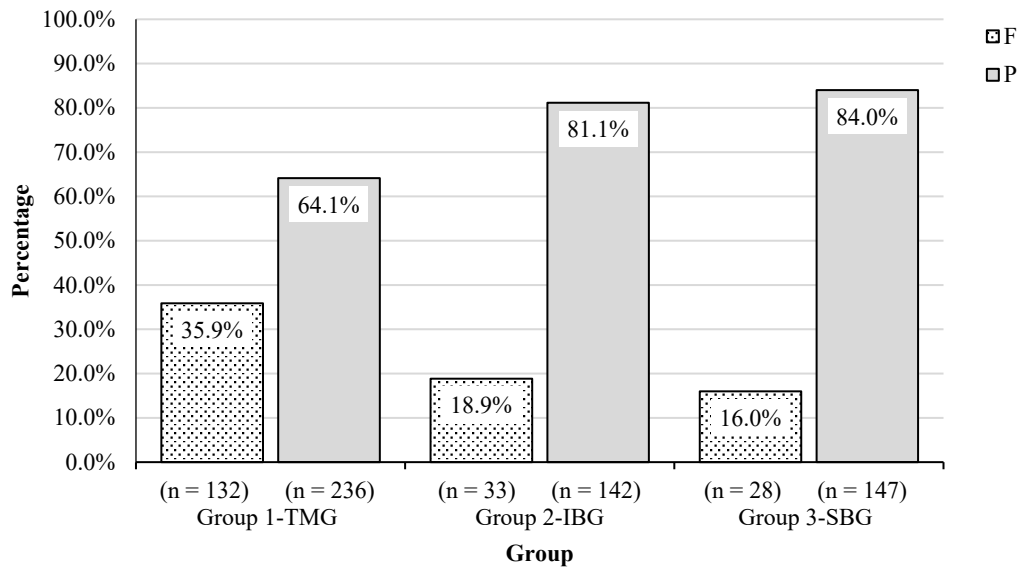
*USG-P/F Comparison by Unit (Information Systems) and Groups*



Economic Principles reported a sequential pass grade percentage increase for each group, with a total increase of 19.9pp between Group 1 and Group 3 (see Figure 4).

**Figure 4**

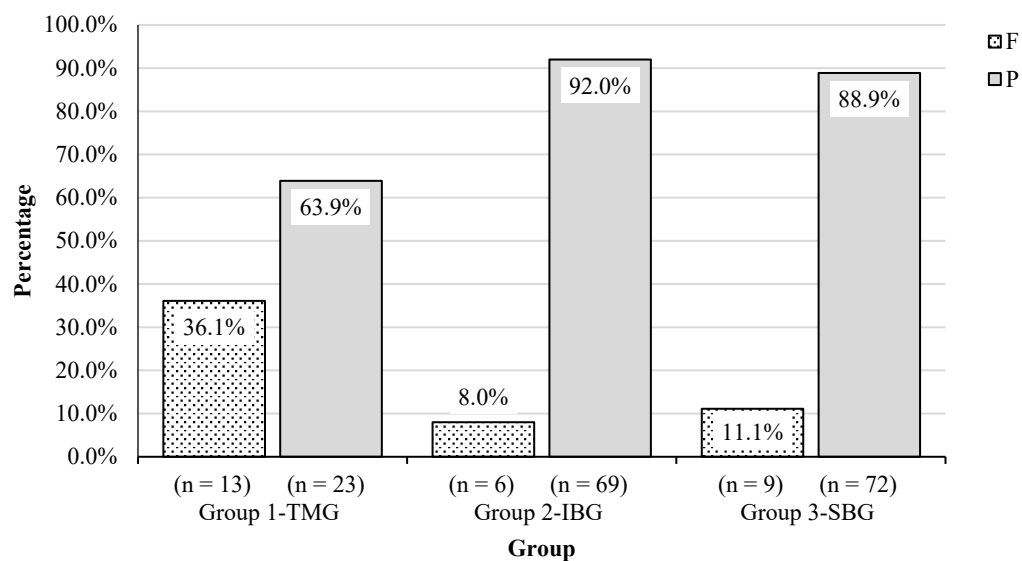
*USG-P/F Comparison by Unit (Economic Principles) and Groups*



Structural Kinesiology reported a significant pass grade percentage increase of 28.1pp between Group 1 and Group 2 (see Figure 5).

**Figure 5**

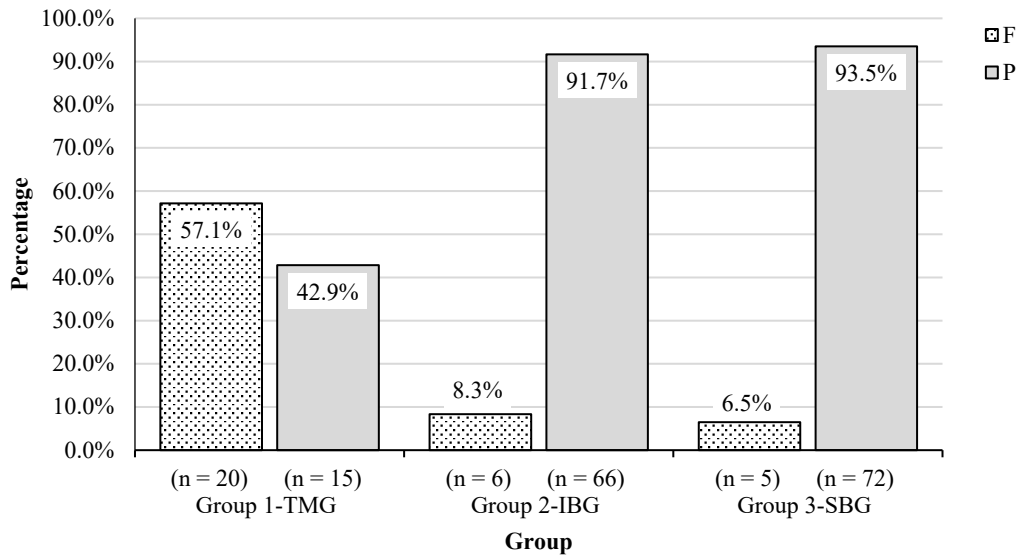
*USG-P/F Comparison by Unit (Structural Kinesiology) and Groups*



The most significant increase in pass grade percentages between all the units was for Human Physiology which occurred between Group 1 and Group 2 (48.8pp) (see Figure 6).

**Figure 6**

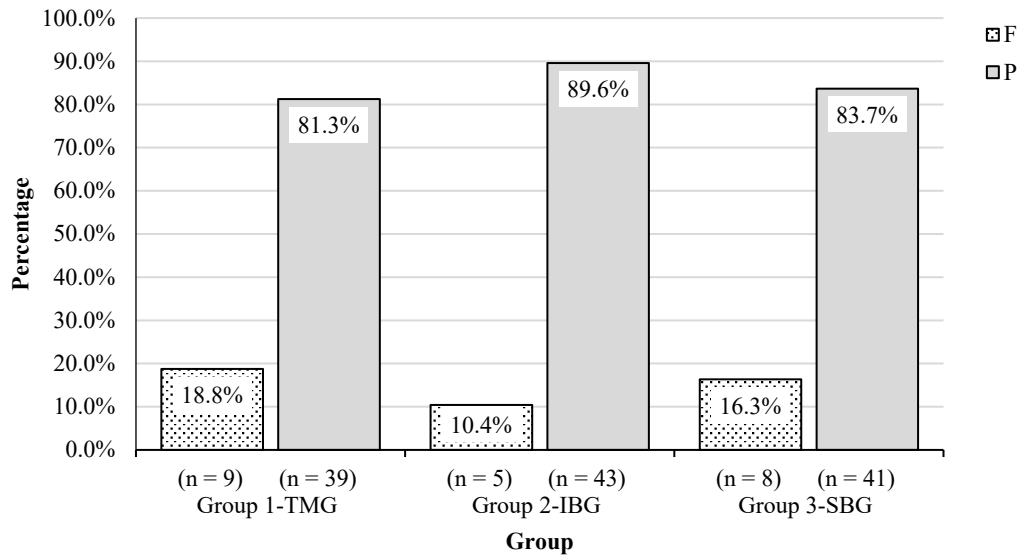
*USG-P/F Comparison by Unit (Human Physiology) and Groups*



While Programming did not report increases between the groups as high as the other units, its increase in pass grades from Group 1 to Group 2 was shown to be consistent (8.3pp) (see Figure 7).

**Figure 7**

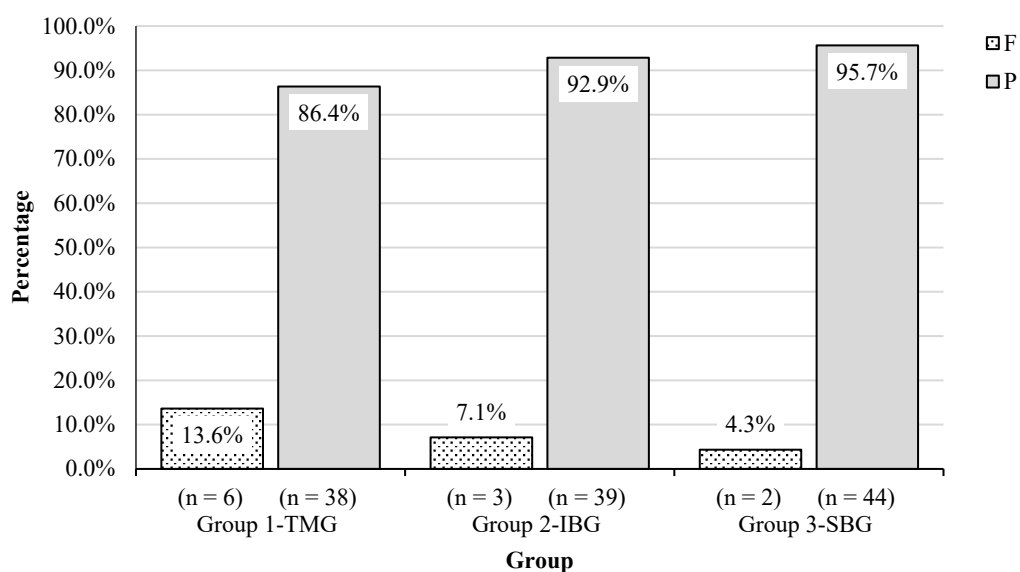
*USG-P/F Comparison by Unit (Programming) and Groups*



Communication Management reported a sequential pass grade percentage increase for each group, with a total increase of 9.3pp between Group 1 and Group 3 (see Figure 8).

**Figure 8**

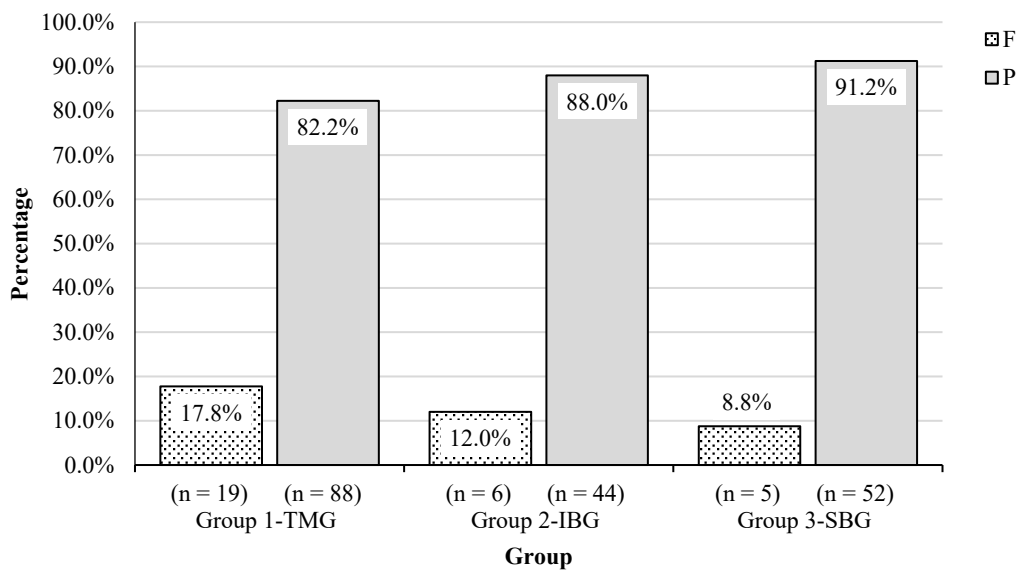
*USG-P/F Comparison by Unit (Communication Management) and Groups*



Legal System reported a sequential pass grade percentage increase for each group, with a total increase of 9pp between Group 1 and Group 3, and a reduced fail grade percentage of 9pp between those same groups (see Figure 9).

**Figure 9**

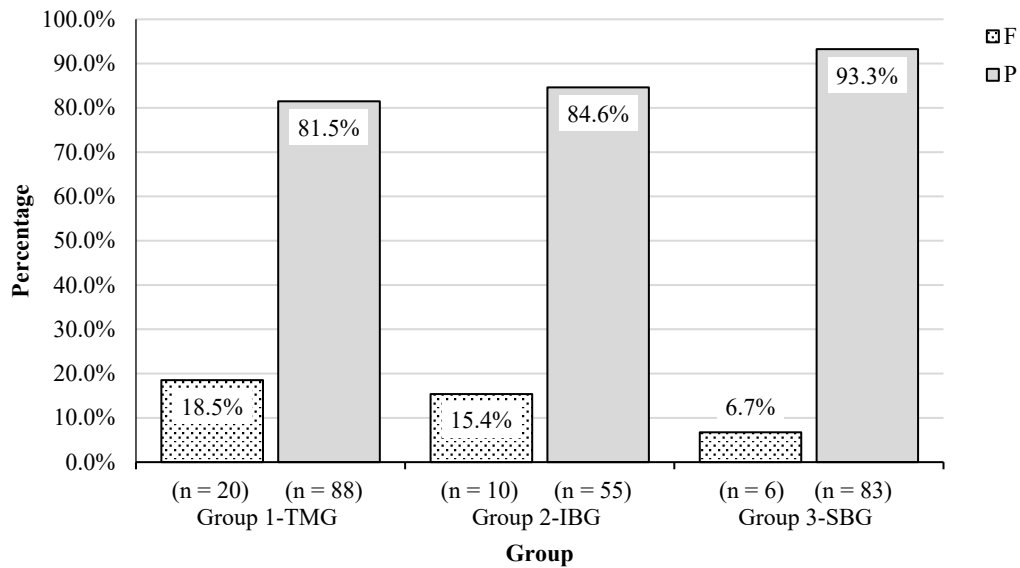
*USG-P/F Comparison by Unit and Groups (Legal System)*



Legal Research showed the smallest increase in pass grade percentages between Group 1 and Group 2 (3.1pp), when compared to all units (see Figure 10).

**Figure 10**

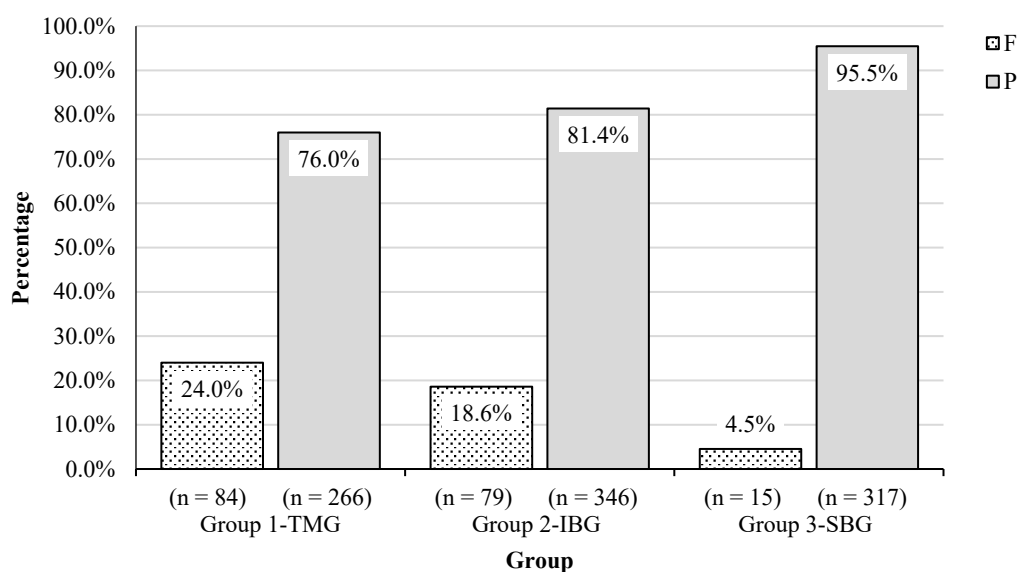
*USG-P/F Comparison by Unit (Legal Research) and Groups*



The Indigenous Health unit reported the greatest increase in pass grade percentages (14.1pp) between Group 2 and Group 3, compared to all other units (see Figure 11).

**Figure 11**

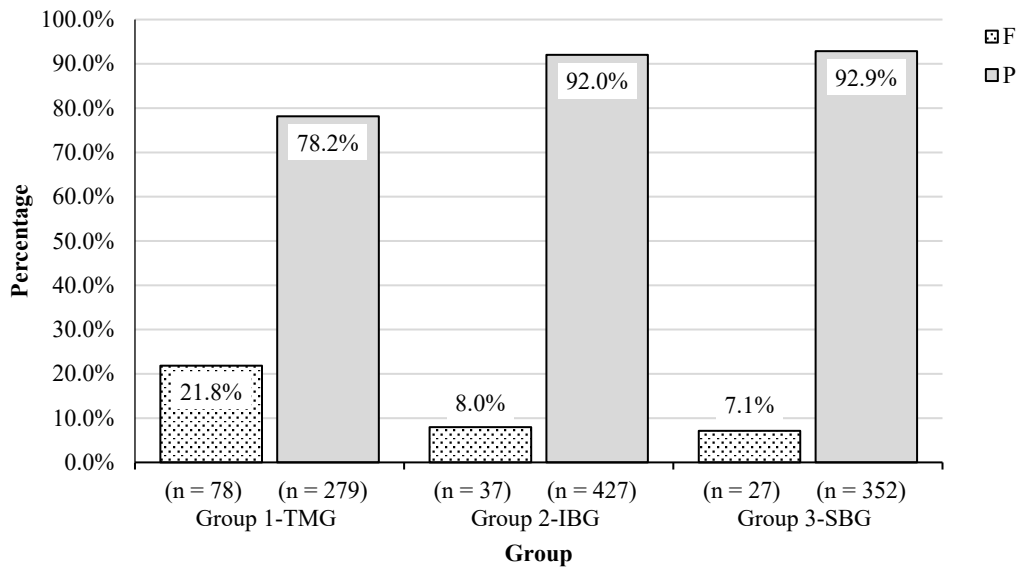
*USG-P/F Comparison by Unit (Indigenous Health) and Groups*



Professional Studies reported the smallest subsequent year increase in pass grade percentages (0.9%) from Group 2 to Group 3 (see Figure 12).

**Figure 12**

*USG-P/F Comparison by Unit (Professional Studies) and Groups*



### ***Equity Group Status***

The chi-square test of independence showed that there was a significant association ( $p < .001$ ) between the P and F variables and the groups for all equity status groups, except for First Nations students ( $p = .527$ ), as shown in Table 12. The Cramér's  $V$  statistic reported a moderate association between the groups and the equity status groups for NESB, LSES and First Nations, and a weak association for SWD.



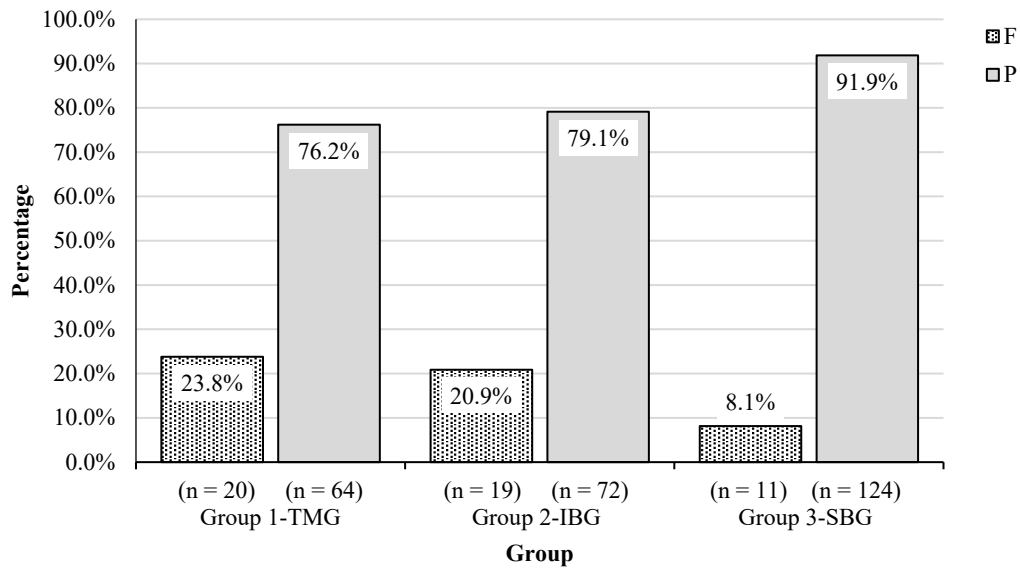
**Table 12***USG-P/F Comparison by Equity Group Status and Groups*

Equity Group Status	USG-P/F			
	Chi-Square			Cramér's <i>V</i>
	<i>X</i> <sup>2</sup>	<i>df</i>	<i>p</i>	<i>V</i>
SWD	11.54	2	.003	.19
NESB	108.48	2	<.001	.28
LSES	68.16	2	<.001	.26
First Nations	1.28	2	.527	.29

Figures 13-16 provide a graphical representation of the findings. All equity groups reported an increase in pass grade percentages from Group 1 to Group 2, and again in the subsequent Group 3. While the smallest increase in pass grade percentage was from Group 1 to Group 2 for SWD (2.9pp), this equity group showed an increased pass grade percentage of 15.7pp from Group 1 to Group 3.

**Figure 13**

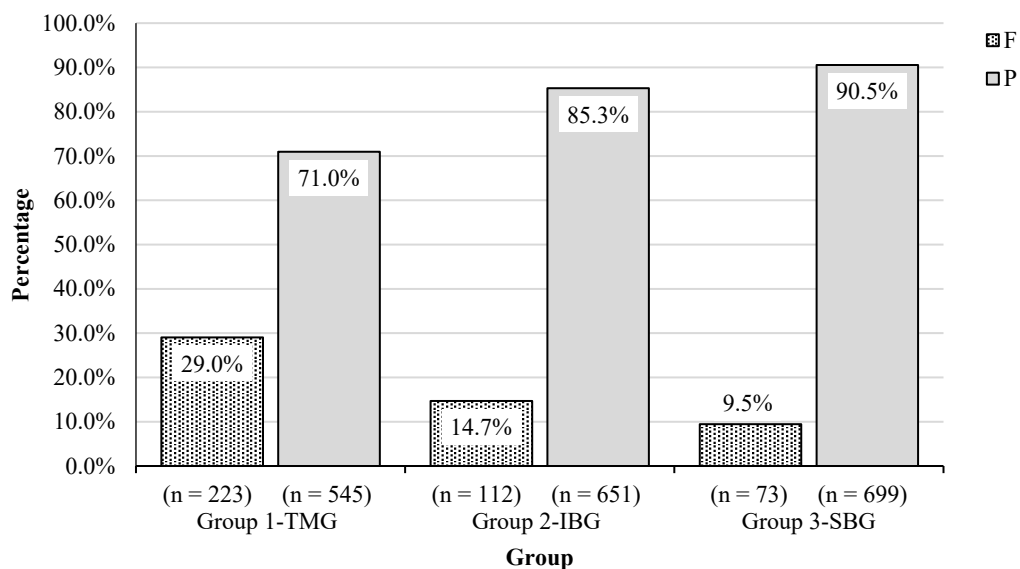
*USG-P/F Comparison by Equity Group Status (SWD) and Groups*



NESB students reported an increase in pass grade percentages of 19.5pp from Group 1 to Group 3, and a sequential increase shown between each of the groups (see Figure 14).

**Figure 14**

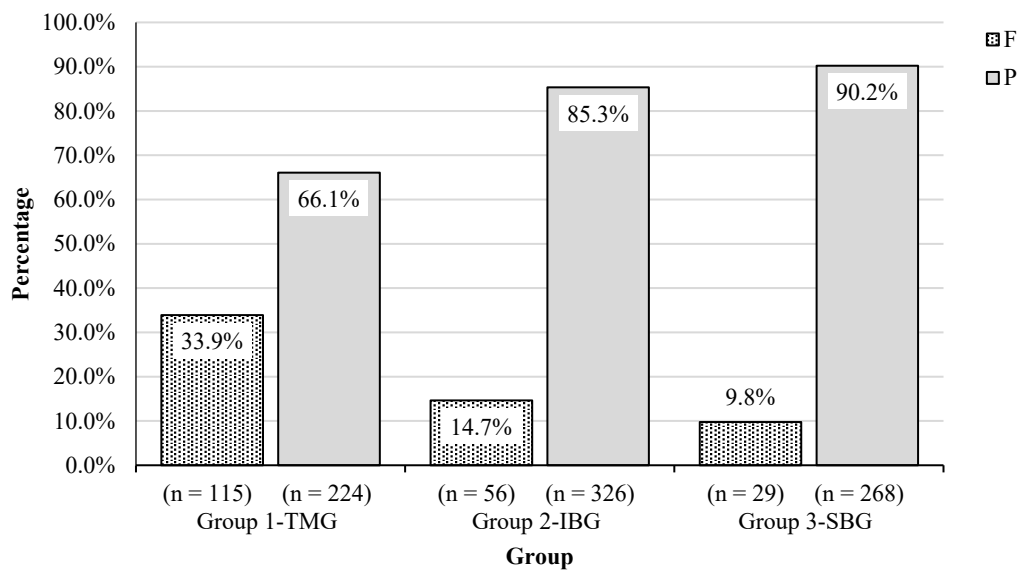
*USG-P/F Comparison by Equity Group Status (NESB) and Groups*



The greatest increase in pass grade percentage points between all of the equity groups for Group 1 to Group 2 occurred for LSES students (19.2pp). However, LSES students reported the smallest increase (4.9pp) from Group 2 to Group 3 among the equity groups. The largest pass grade percentage from Group 1 to Group 3 among the equity groups was for LSES (24.1pp) (see Figure 15).

**Figure 15**

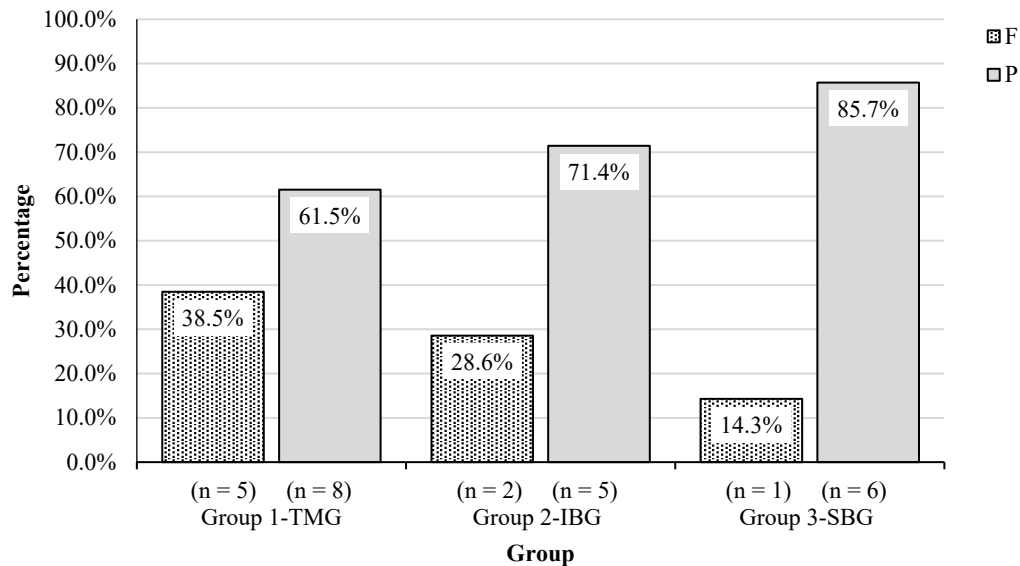
*USG-P/F Comparison by Equity Group Status (LSES) and Groups*



When comparing increases from Group 2 to Group 3, First Nations students reported the greatest increase in pass grade percentage points (14.3pp) among all of the equity groups (see Figure 16).

**Figure 16**

*USG-P/F Comparison by Equity Group Status (First Nations) and Groups*



### ***Domestic Student Status***

The chi-square test of independence result indicated that there was a significant difference ( $p < .001$ ) between the P and F variables and the groups for domestic and international students (see Table 13). The Cramér's  $V$  statistic revealed a moderate association between the groups for domestic students (.21) and a weak association was reported for international students.

Domestic and international students reported an increase in pass grade percentages from Group 1 to Group 2. An increase was also reported in the subsequent Group 3 when compared with Groups 1 and 2. In Group 2, domestic students reported the greatest increase in pass grade percentages (15.8pp) from Group 1, while international students only reported 5.7pp. When comparing the increases in Group 2 with the pass grade percentages in the

subsequent Group 3, international students reported the greatest increase in pass grade percentages (6.4pp) when compared to domestic students (1.8pp).

**Table 13**

*USG-P/F Comparison by Domestic Status and Groups*

Domestic Status and Groups	USG-P/F							
	P		F		Chi-Square			Cramér's <i>V</i>
	<i>n</i>	%	<i>n</i>	%	<i>X</i> <sup>2</sup>	<i>df</i>	<i>p</i>	<i>V</i>
Domestic					218.41	2	<.001	.21
Group 1-TMG	1,220	72.3	467	27.7				
Group 2-IBG	1,472	88.1	199	11.9				
Group 3-SBG	1,321	89.9	148	10.1				
International					21.92	2	<.001	.17
Group 1-TMG	274	83.0	56	17.0				
Group 2-IBG	125	88.7	16	11.3				
Group 3-SBG	270	95.1	14	4.9				

### USG-M (Mark)

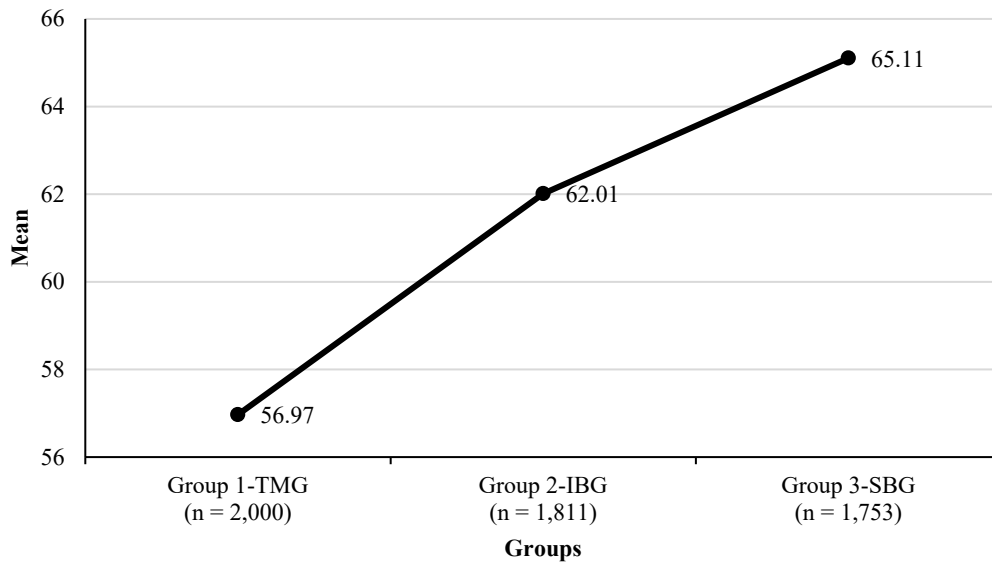
#### *Groups*

The univariate GLM one-way samples ANOVA analysis revealed a significant difference for the mean mark and the groups, with a small effect size reported ( $F(2) = 75.38, p < .001, \eta^2 = .03$ ). The descriptive analysis indicated that the mean mark improved for each consecutive group, with the greatest increase in mean mark reported between Group 1 and Group 2, as shown in the graphical representation of the findings in Figure 17. The mean

mark between groups was reported as significant ( $p < .001$ ) and was shown to be significant between multiple group comparisons.

**Figure 17**

*USG-M Comparison of Mean Mark by Groups*



### ***Academic Disciplines***

A significant difference was reported for the mean mark for each of the academic disciplines and the groups, except for Engineering ( $p = .065$ ), as reported in Table 14. The effect sizes are reported as small for all academic disciplines, except for the medium effect size for Sport.

Arts and Ed reported the greatest overall mean mark ( $M = 70.77$ ,  $SD = 0.76$ ) while Business reported the smallest ( $M = 55.66$ ,  $SD = 0.54$ ). The comparison of academic disciplines and groups showed an increased mean mark for all disciplines between Group 1 and Group 2. Sport reported the greatest increase of mean mark between these groups. Only

Law and Health reported a continued increase between Group 2 and Group 3, and declines were reported for Arts and Ed, Sport, and Engineering.

**Table 14**

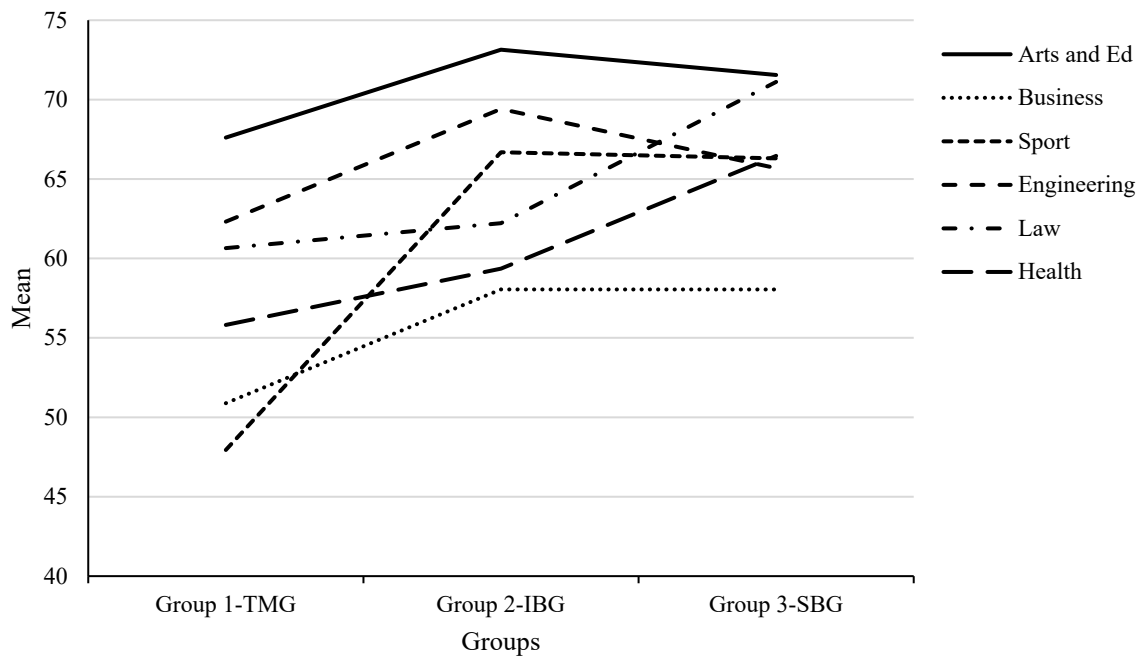
*USG-M Comparison by Academic Discipline and Groups*

Academic Discipline and Groups	USG-M						
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>F</i>	<i>p</i>	$\eta^2$
Arts and Ed				2	4.423	.012	.012
Group 1-TMG	344	67.61	25.67				
Group 2-IBG	215	73.14	18.20				
Group 3-SBG	182	71.55	20.84				
Business				2	16.440	<.001	.023
Group 1-TMG	573	50.89	25.43				
Group 2-IBG	356	58.05	21.84				
Group 3-SBG	461	58.05	20.32				
Sport				2	22.341	<.001	.107
Group 1-TMG	71	47.94	25.38				
Group 2-IBG	147	66.69	19.85				
Group 3-SBG	158	66.30	19.99				
Engineering				2	2.767	.065	.020
Group 1-TMG	91	62.32	24.15				
Group 2-IBG	90	69.41	18.01				
Group 3-SBG	95	65.68	18.16				
Law				2	12.108	<.001	.049
Group 1-TMG	215	60.65	21.51				
Group 2-IBG	115	62.22	20.23				
Group 3-SBG	146	71.12	19.02				
Health				2	78.390	<.001	.064
Group 1-TMG	706	55.82	17.37				
Group 2-IBG	888	59.35	17.01				
Group 3-SBG	711	66.46	14.33				

The greatest increase in mean mark between Group 1 and Group 3 was reported for Sport. All academic disciplines reported an increased mean mark between Group 1 and Group 3. Figure 18 provides a graphical representation of these findings.

**Figure 18**

*USG-M Comparison of Mean Mark by Academic Discipline and Groups*



**Units**

A significant difference of the mean mark was reported for each of the units and the groups except for Sociology, Programming, and Communication Management. The effect sizes are reported as small for all units except for a medium effect size for Structural Kinesiology, and a large effect size for both Human Physiology and Indigenous Health.

Professional Learning reported the greatest overall mean mark ( $M = 79.48, SD = 11.57$ ) while Human Physiology reported the smallest ( $M = 44.03, SD = 21.62$ ). The mean mark between groups was reported as significant ( $p < .001$ ) between all multiple group comparisons. As reported in Table 15, the comparison of units and groups reported an



increased mean mark for all units between Group 1 and Group 2, except for Legal Research.

Structural Kinesiology reported the greatest increase between these groups.

**Table 15**

*USG-M Comparison by Unit and Groups*

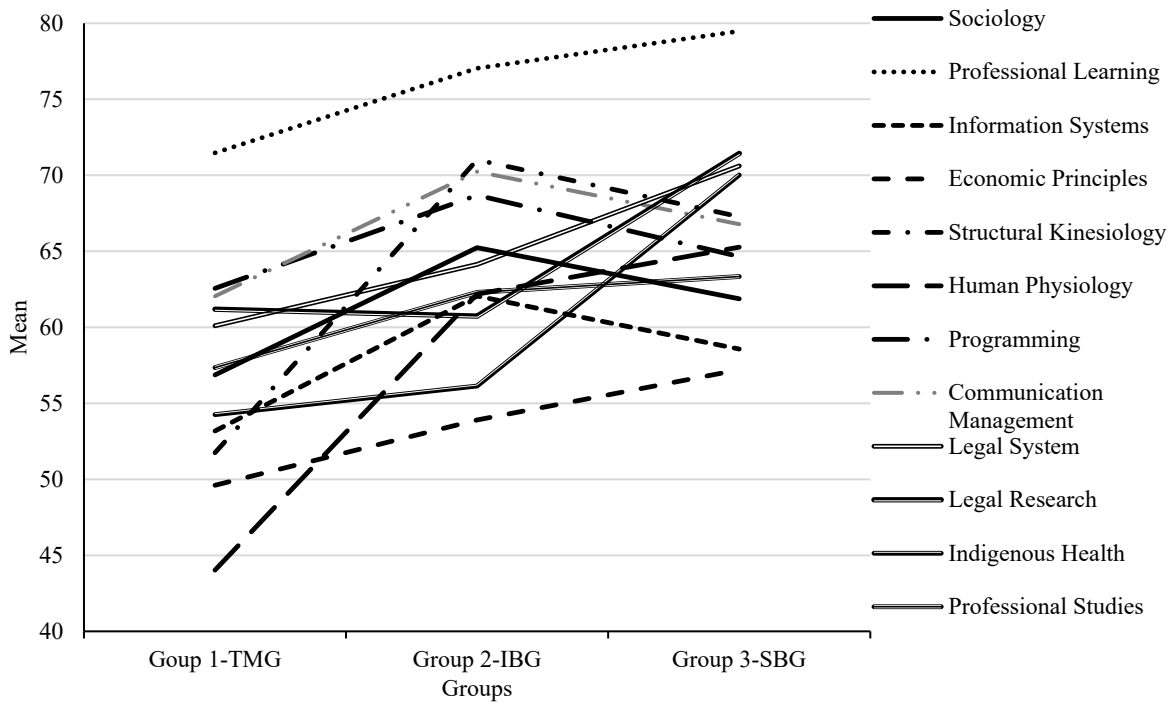
Unit and Groups	USG-M						
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>F</i>	<i>p</i>	$\eta^2$
Sociology				2	2.121	.122	.017
Group 1-TMG	91	56.87	27.05				
Group 2-IBG	71	65.24	25.92				
Group 3-SBG	82	61.88	25.20				
Professional Learning				2	7.993	<.001	.031
Group 1-TMG	253	71.47	24.06				
Group 2-IBG	144	77.04	10.96				
Group 3-SBG	100	79.48	11.57				
Information Systems				2	7.813	<.001	.023
Group 1-TMG	205	53.18	27.00				
Group 2-IBG	181	62.06	20.27				
Group 3-SBG	286	58.57	19.83				
Economic Principles				2	6.749	=.001	.019
Group 1-TMG	368	49.61	24.46				
Group 2-IBG	175	53.91	22.67				
Group 3-SBG	175	57.21	21.13				
Structural Kinesiology				2	8.864	<.001	.086
Group 1-TMG	36	51.75	28.36				
Group 2-IBG	75	71.01	21.62				
Group 3-SBG	81	67.27	21.40				
Human Physiology				2	16.673	<.001	.156
Group 1-TMG	35	44.03	21.62				
Group 2-IBG	72	62.18	16.81				
Group 3-SBG	77	65.27	18.49				
Programming				2	0.990	.374	.014
Group 1-TMG	48	62.56	25.54				
Group 2-IBG	48	68.69	19.57				
Group 3-SBG	49	64.65	19.42				

Unit and Groups	USG-M						
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>F</i>	<i>p</i>	$\eta^2$
Communication Management				2	2.029	.136	.031
Group 1-TMG	43	62.05	22.80				
Group 2-IBG	42	70.24	16.24				
Group 3-SBG	46	66.78	16.86				
Legal System				2	5.247	.006	.047
Group 1-TMG	107	60.10	20.20				
Group 2-IBG	50	64.14	19.66				
Group 3-SBG	57	70.61	19.16				
Legal Research				2	7.190	<.001	.053
Group 1-TMG	108	61.19	22.82				
Group 2-IBG	65	60.74	20.68				
Group 3-SBG	89	71.44	19.03				
Indigenous Health				2	93.908	<.001	.146
Group 1-TMG	350	54.25	16.33				
Group 2-IBG	424	56.14	17.66				
Group 3-SBG	332	70.02	15.06				
Professional Studies				2	15.230	<.001	.025
Group 1-TMG	356	57.35	18.23				
Group 2-IBG	464	62.30	15.86				
Group 3-SBG	379	63.34	12.87				

Figure 19 shows that seven of the 12 units reported a continued increase between Group 2 and Group 3, with Indigenous Health reporting the greatest increase in mean mark between the groups. The remaining five units all reported declines in the mean mark between Group 2 and Group 3. All academic disciplines reported an increased mean mark between Group 1 and Group 3. All academic disciplines reported an increased mean mark between Group 1 and Group 3, with the most significant increase in mean mark reported for Human Physiology.

**Figure 19**

*USG-M Comparison of Mean Mark by Unit and Groups*



***Equity Group Status***

No significant difference was reported for the mean mark and each equity status group in comparison with the groups (i.e., all academic years), as shown in Table 16.

**Table 16***USG-M Comparison of Equity Group Status and Groups*

Equity Group Status and Groups	USG-M						
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>F</i>	<i>p</i>	$\eta^2$
SWD				2	1.51	.222	=.001
Group 1-TMG	83	55.66	22.45				
Group 2-IBG	91	59.51	25.56				
Group 3-SBG	135	67.24	18.18				
NESB				2	1.36	.256	<.001
Group 1-TMG	763	54.00	21.895				
Group 2-IBG	762	58.54	18.92				
Group 3-SBG	772	63.09	17.45				
LSES				2	1.78	.169	=.001
Group 1-TMG	337	52.11	24.02				
Group 2-IBG	382	58.60	20.60				
Group 3-SBG	297	63.85	18.81				
First Nations				2	0.09	.918	<.001
Group 1-TMG	13	53.38	30.15				
Group 2-IBG	7	56.29	27.54				
Group 3-SBG	7	57.57	20.87				

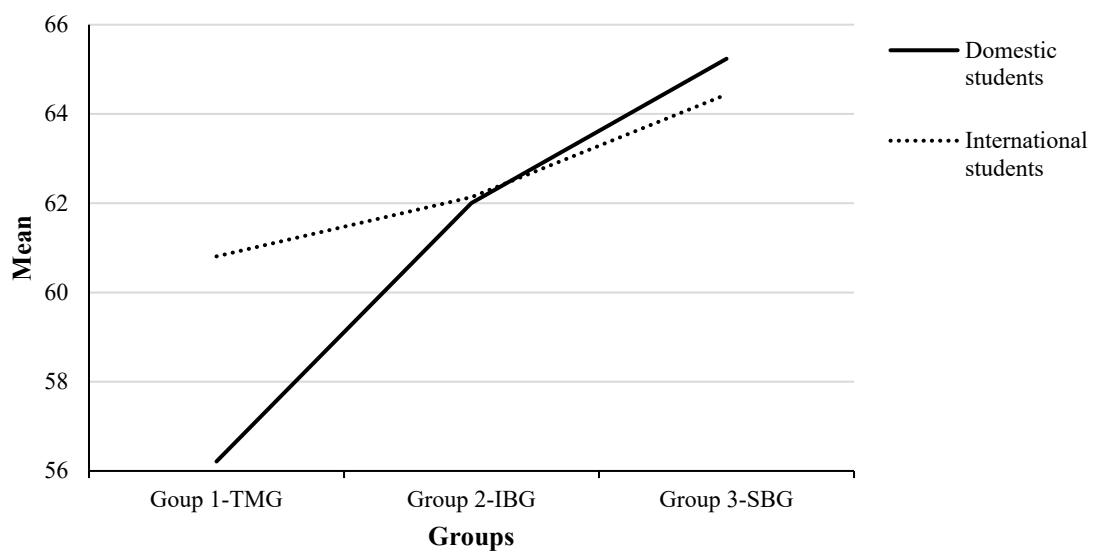
***Domestic Student Status***

A significant difference was reported for the mean mark for each of the domestic and international student cohorts in comparison with the groups. The effect sizes were reported as small for each student cohort. Table 17 provides the variances in the mean score for each group and cohort.

**Table 17***USG-M Comparison of Domestic Status and Groups*

Domestic Status and Groups	USG-M						
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>F</i>	<i>p</i>	$\eta^2$
Domestic				2	74.08	<.001	.030
Group 1-TMG	1,671	56.21	24.01				
Group 2-IBG	1,670	62.00	19.61				
Group 3-SBG	1,469	65.24	19.32				
International				2	3.92	.020	.010
Group 1-TMG	329	60.81	18.25				
Group 2-IBG	141	62.13	15.76				
Group 3-SBG	284	64.44	13.23				

Domestic and international students reported improved mean marks from Group 1 to Group 2 and again for Group 3, as shown in Figure 20.

**Figure 20***USG-M Comparison by Domestic Status and Groups*

## **USG-GD (Grade Distribution)**

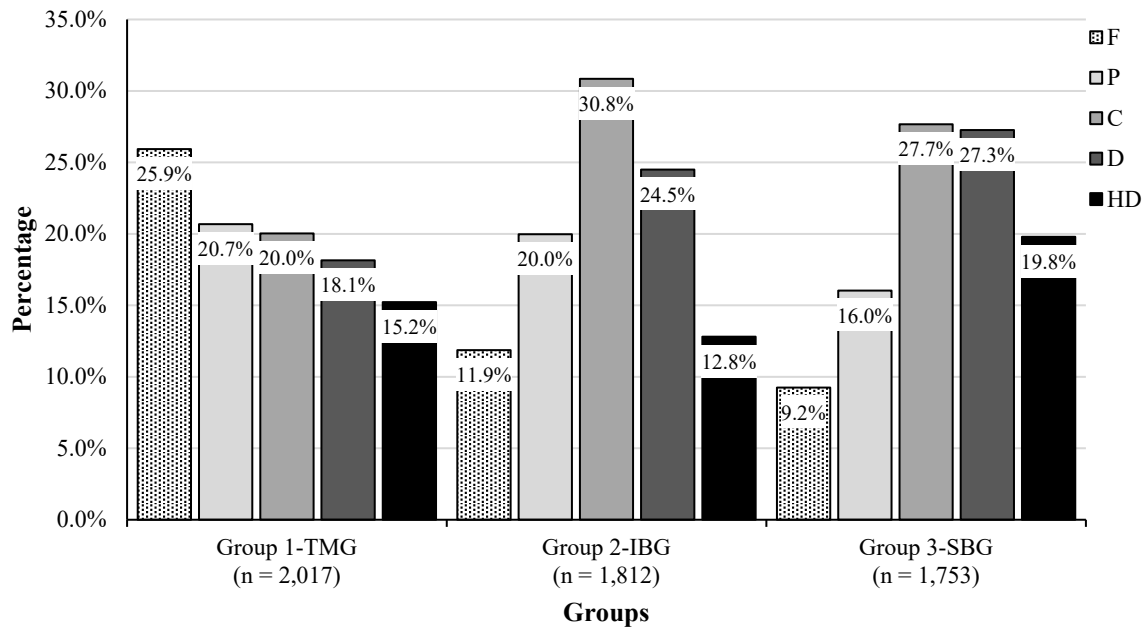
Results of the USG-GD analysis and the presentation of data in this section are represented as a percentage proportion of grade results within each group.

### ***Groups***

The chi-square test of independence showed that there was a significant difference between the USG-GD and the groups for each academic year ( $X^2(8, N = 5,582) = 314.70, p < .001$ ). The Cramér's  $V$  statistic was .17, representing a weak association between the groups and the grade results. The greatest grade result percentage was for Group 2, which reported 30.8% in C grades. The greatest percentage proportion of F grades (25.9%) occurred in Group 1, and this percentage was found to have been reduced by 14pp in Group 2 (11.9%). A further reduction of fail grades occurred again in Group 3. D grades consistently improved from Group 1 to Group 3. The combined percentages for D and HD grades increased consecutively from Groups 1-3 (33.3%, 37.3% and 47.1% respectively). Figure 21 presents a detailed graphical comparison of groups and grade result distributions.

**Figure 21**

*USG-GD Comparison by Groups*



***Academic Disciplines***

As shown in Table 18, the chi-square test of independence showed that there was a significant difference between the USG-GD and the groups for all academic disciplines. The Cramér’s *V* statistic revealed a weak association between the groups and academic disciplines of Arts and Ed, Business, and Engineering, while Sport, Law, and Health all showed a moderate association.

All academic disciplines reported different frequencies in grade distributions between the groups. Table 18 that shows a detailed comparison of groups, academic discipline, and grade distribution. The greatest grade percentage improvement for HD grades between Group 1 and Group 3 occurred in the Sports, Law, and Health disciplines. Business and Engineering were the only academic disciplines to not report a higher percentage of HD grades between Group 1 and Group 3. The most significant reduction in F grades from Group 1 to Group 3 occurred in Sport (46.5% reduced to 8.9%).

**Table 18***USG-GD Comparison by Academic Discipline and Groups*

Academic Discipline and Groups	USG-GD								
	F	P	C	D	HD	Chi-Square			Cramér's <i>V</i>
	%	%	%	%	%	<i>X</i> <sup>2</sup>	<i>df</i>	<i>p</i>	<i>V</i>
Arts and Ed						39.980	8	<.001	.163
Group 1-TMG	21.2	4.5	13.6	22.9	37.9				
Group 2-IBG	5.6	4.7	14.0	38.6	37.2				
Group 3-SBG	8.8	4.9	14.3	32.4	39.6				
Business						98.634	8	<.001	.188
Group 1-TMG	34.4	22.1	15.4	15.7	12.3				
Group 2-IBG	14.3	23.9	28.1	22.8	11.0				
Group 3-SBG	15.0	22.8	29.3	24.5	8.5				
Sport						70.922	8	<.001	.307
Group 1-TMG	46.5	11.3	25.4	7.0	9.9				
Group 2-IBG	8.2	16.3	28.6	22.4	24.5				
Group 3-SBG	8.9	15.2	22.2	27.8	25.9				
Engineering						18.405	8	.018	.182
Group 1-TMG	16.3	17.4	18.5	21.7	26.1				
Group 2-IBG	8.9	10.0	12.2	37.8	31.1				
Group 3-SBG	10.5	10.5	30.5	26.3	22.1				
Law						60.672	8	<.001	.252
Group 1-TMG	18.1	9.3	29.3	27.4	15.8				
Group 2-IBG	13.9	10.4	27.8	39.1	8.7				
Group 3-SBG	7.5	2.7	13.0	38.4	38.4				
Health						230.522	8	<.001	.224
Group 1-TMG	22.9	32.4	23.9	15.6	5.2				
Group 2-IBG	13.0	25.0	38.7	18.9	4.4				
Group 3-SBG	5.9	18.1	33.9	25.5	16.6				



## *Units*

As shown in Table 19, the chi-square test of independence showed that there was a significant difference between the USG-GD and the groups for all units except for Programming. The Cramér's *V* statistic revealed a relatively strong association between the groups and the Human Physiology unit, while all other units revealed either a weak or moderate association. All units reported different frequencies in grade distributions between the groups.

**Table 19**

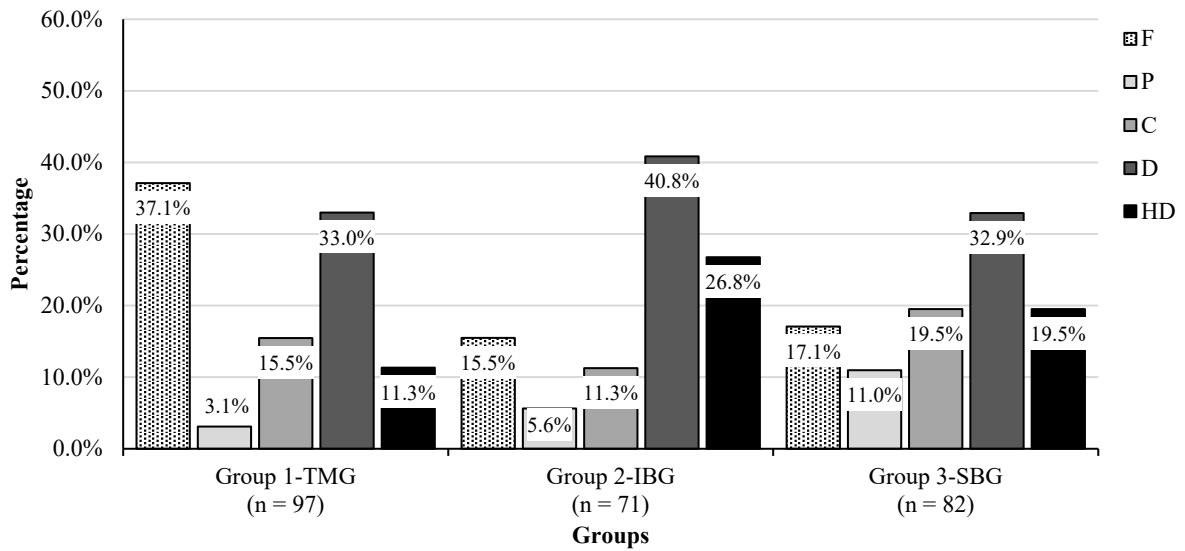
*USG-GD Comparison by Unit and Groups*

Groups	USG-GD			
	Chi-Square			Cramér's <i>V</i>
	X <sup>2</sup>	df	p	V
Sociology	22.881	8	.004	.214
Professional Learning	50.477	8	<.001	.224
Information Systems	49.896	8	<.001	.192
Economic Principles	46.959	8	<.001	.181
Structural Kinesiology	21.733	8	.005	.238
Human Physiology	62.582	8	<.001	.412
Programming	5.448	8	.709	.137
Communication Management	21.868	8	.005	.288
Legal System	36.485	8	<.001	.292
Legal Research	31.246	8	<.001	.244
Indigenous Health	269.408	8	<.001	.349
Professional Studies	71.034	8	<.001	.172

F grade percentages continued to decline for all units from Group 1 to Group 3, as had been evidenced for academic disciplines. The detailed comparison of groups, grade distribution and units is presented in the graphical representation of the findings at Figures 22-33.

**Figure 22**

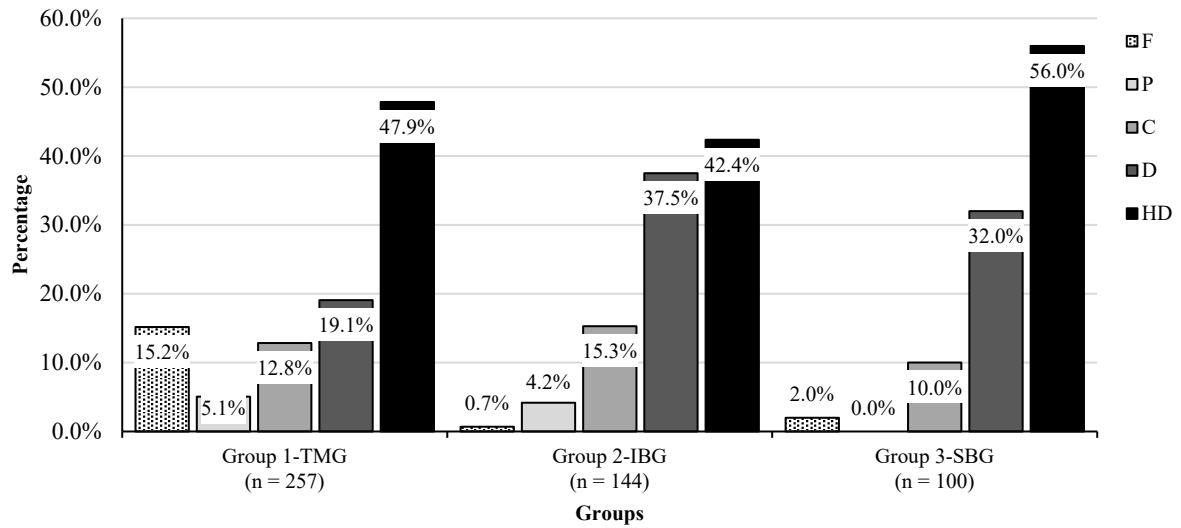
*USG-GD Comparison by Unit (Sociology) and Groups*



Professional Learning showed an increase in the HD grade percentage (8.1pp) from Group 1 to Group 3 (see Figure 23).

**Figure 23**

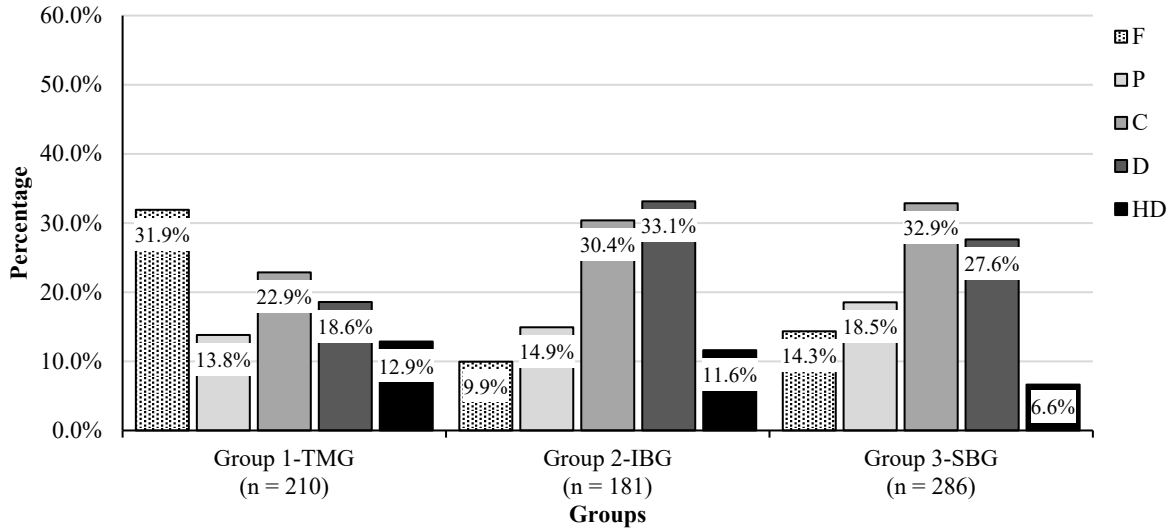
*USG-GD Comparison by Unit (Professional Learning) and Groups*



Information Systems reported an increase in the C grade percentage (10pp) from Group 1 to Group 3, and a reduced HD grade percentage between those same groups (6.3pp) (see Figure 24).

**Figure 24**

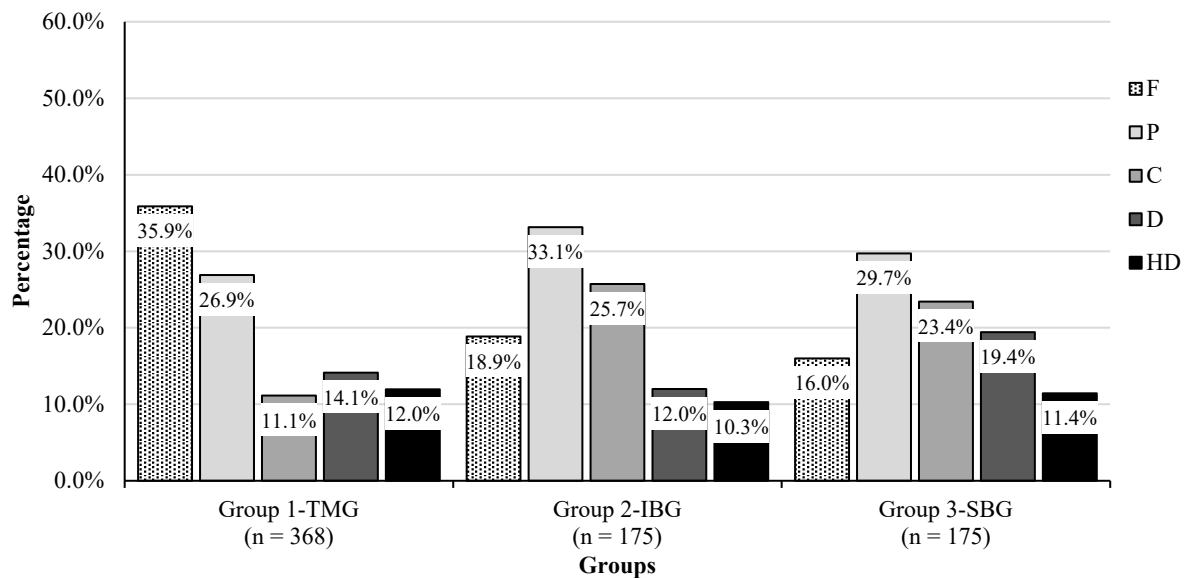
*USG-GD Comparison by Unit (Information Systems) and Groups*



F grade percentages reduced significantly for Economic Principles from Group 1 to Group 3 (19.9pp) (see Figure 25).

**Figure 25**

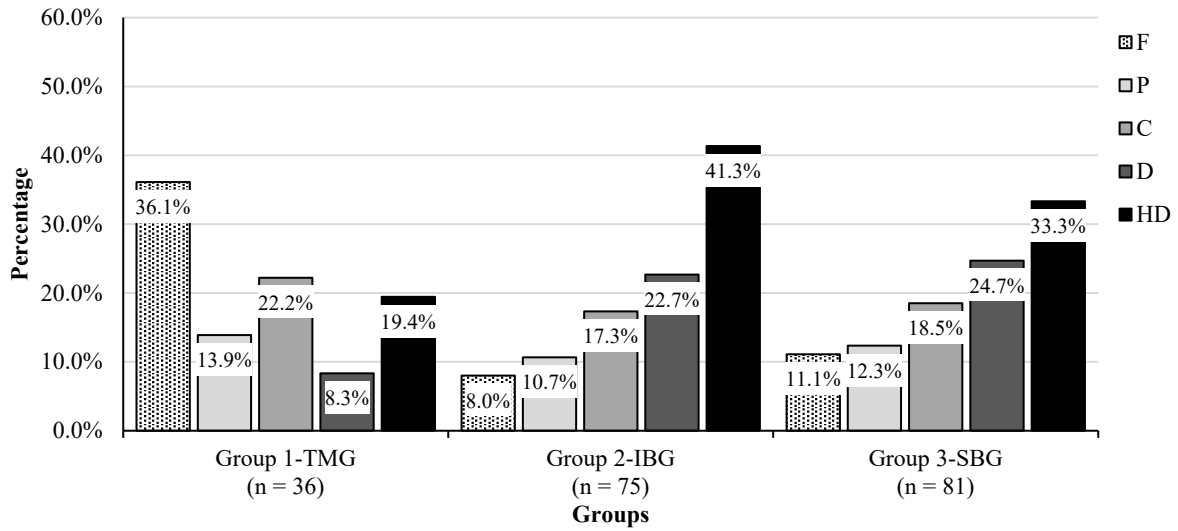
*USG-GD Comparison by Unit (Economic Principles) and Groups*



Structural Kinesiology showed an increase in the D grade percentages from Group 1 to Group 3 (16.4pp) (see Figure 26).

**Figure 26**

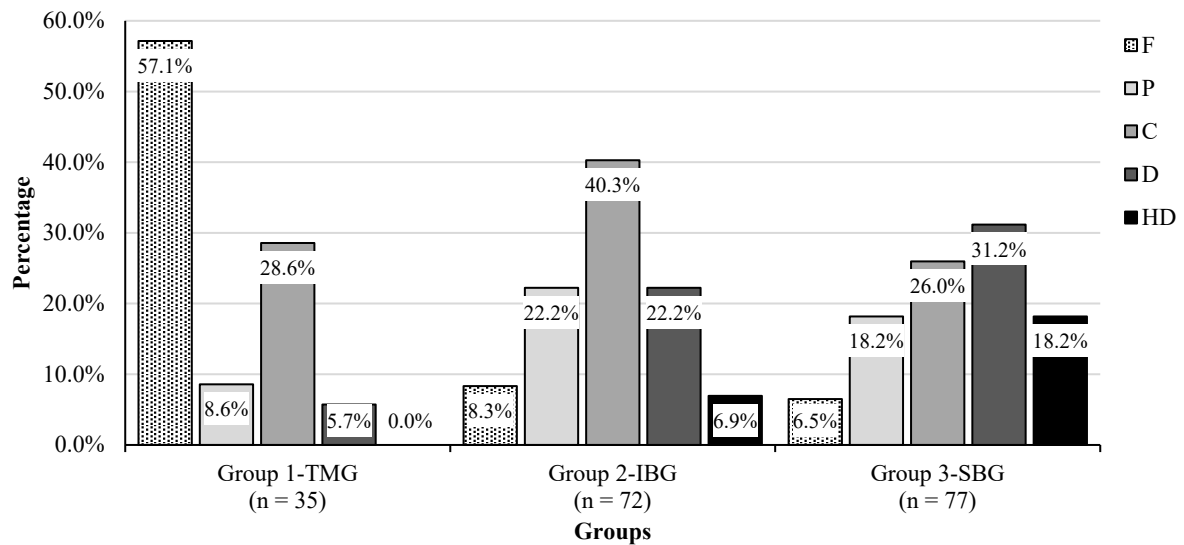
*USG-GD Comparison by Unit (Structural Kinesiology) and Groups*



Human Physiology reported significantly reduced F grade percentages from Group 1 to Group 3 (50.6pp), and also increased HD grade percentages (18.2pp) for these same groups (see Figure 27).

**Figure 27**

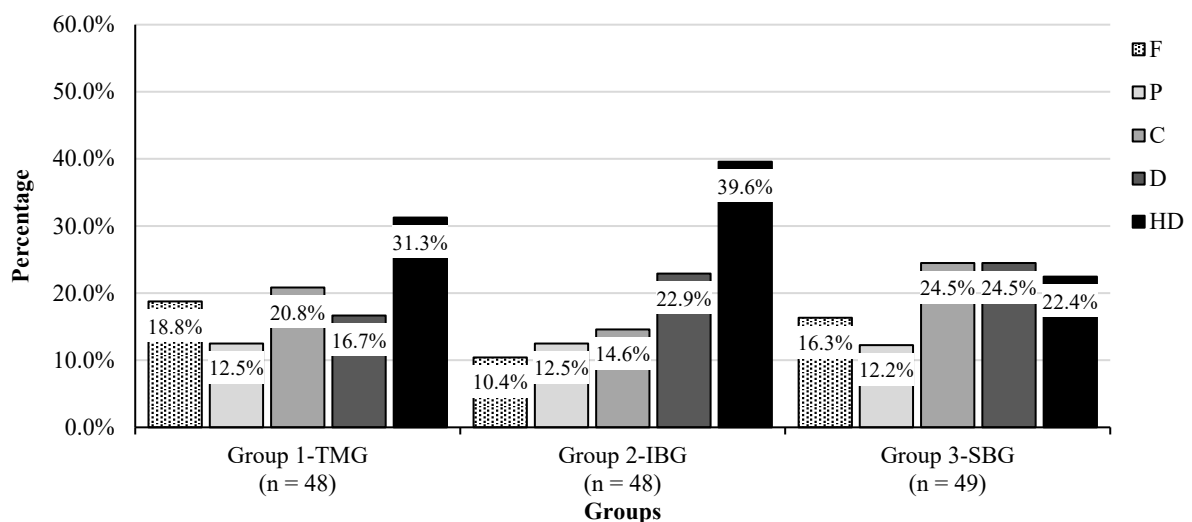
*USG-GD Comparison by Unit (Human Physiology) and Groups*



Programming reported fluctuating differences across all grades and groups. The D and HD grades increased between Group 1 and Group 2 (6.2pp and 8.3pp respectively for each grade) (see Figure 28).

**Figure 28**

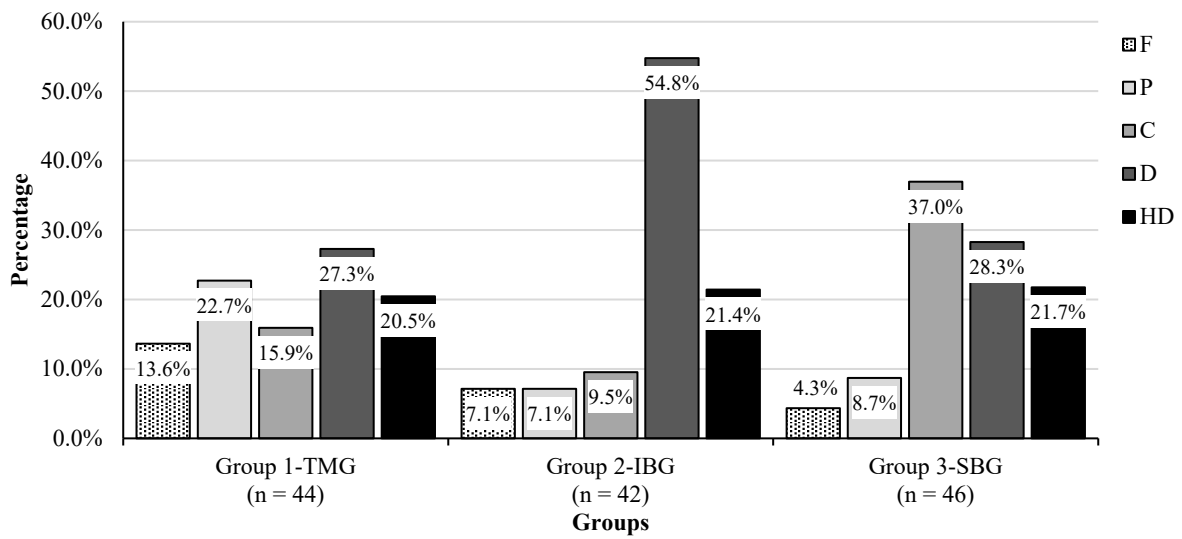
*USG-GD Comparison by Unit (Programming) and Groups*



Communication Management reported a high increase in the D grade between Group 1 and Group 2 (27.5pp), with those grades subsequently reducing from Group 2 to Group 3 (26.5pp) (see Figure 29).

**Figure 29**

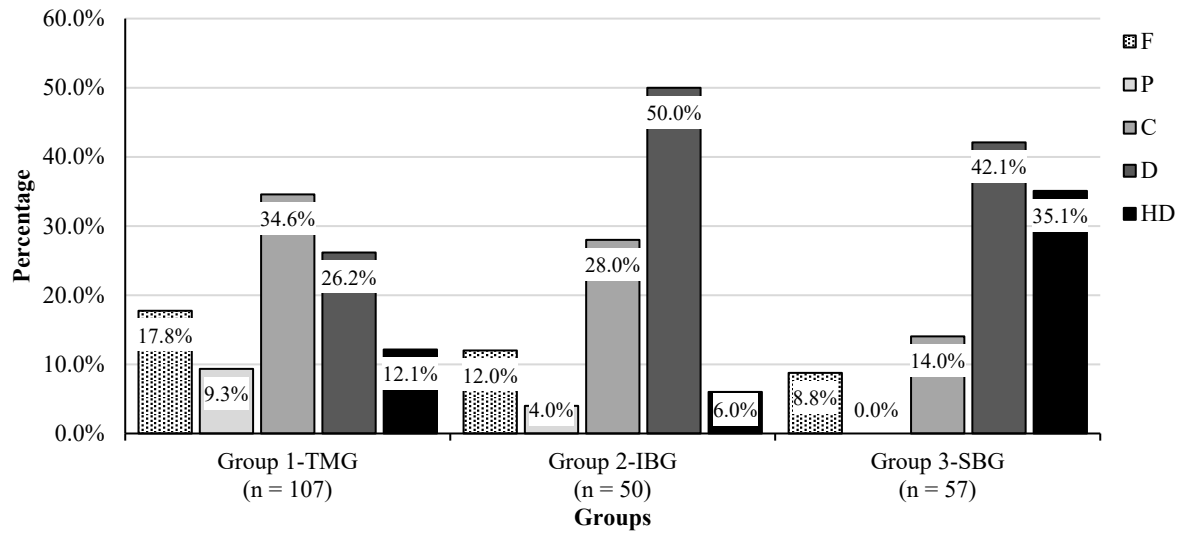
*USG-GD Comparison by Unit (Communication Management) and Groups*



Legal System reported high increases in D grades between Group 1 and Group 2 (23.8pp), with those grades subsequently reducing in Group 3 (7.9pp) (see Figure 30).

**Figure 30**

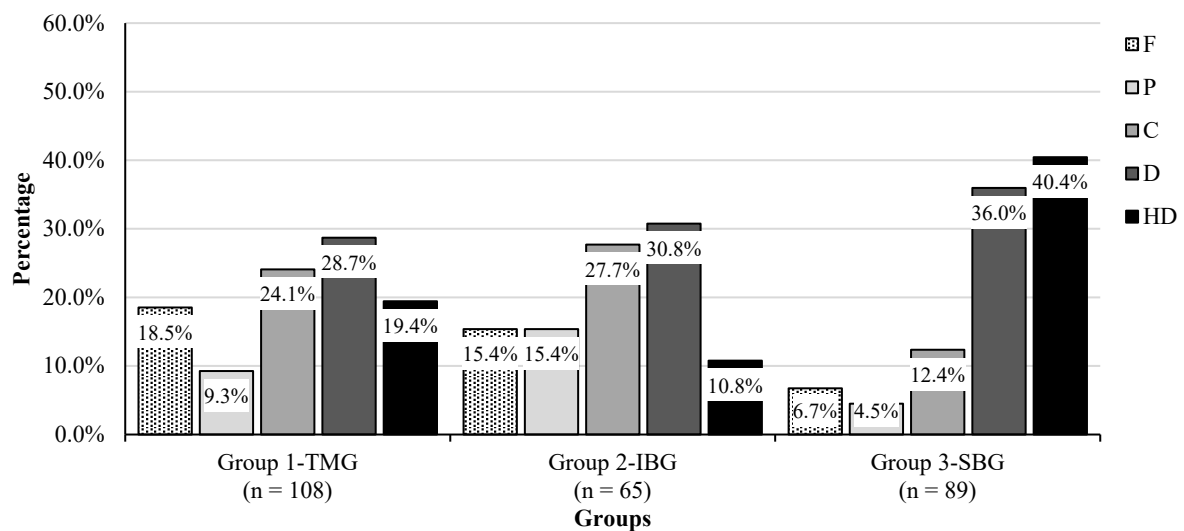
*USG-GD Comparison by Unit (Legal System) and Groups*



Legal Research demonstrated the greatest increase in grades between Group 1 and Group 3 for the HD grade percentage, with a 21pp increase (see Figure 31).

**Figure 31**

*USG-GD Comparison by Unit (Legal Research) and Groups*

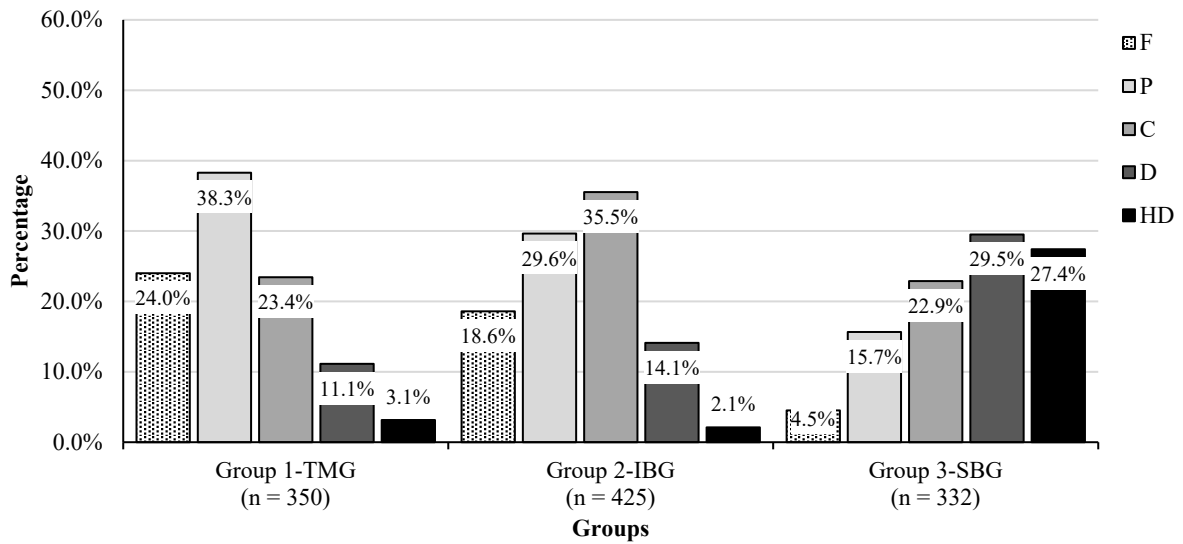




Indigenous Health reported an increased HD grade percentage from Group 1 to Group 3 (24.3pp) (see Figure 32).

**Figure 32**

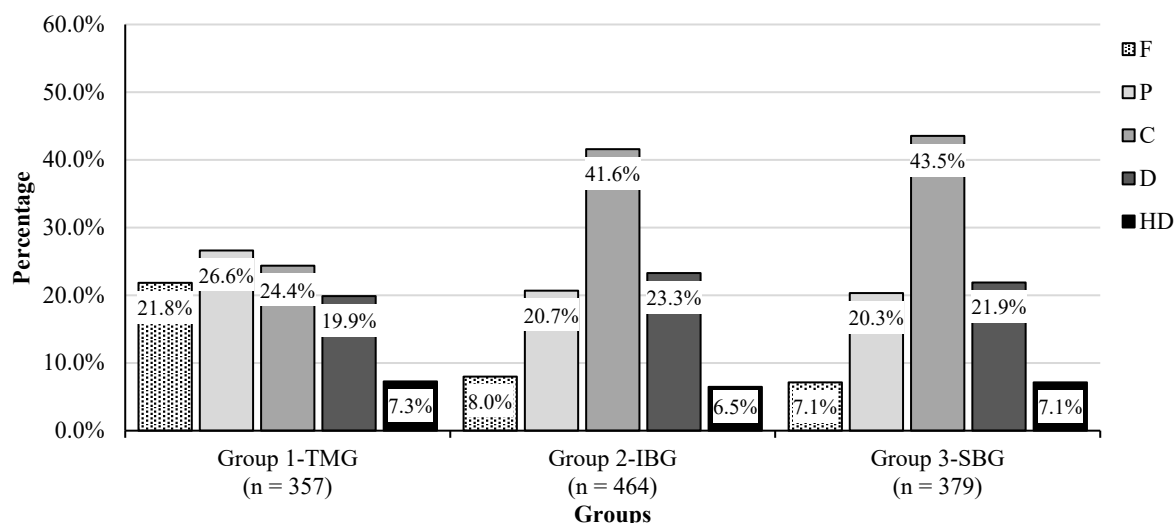
*USG-GD Comparison by Unit (Indigenous Health) and Groups*



Professional Studies reported a decrease in F grades (14.7pp) from Group 1 to Group 3, and C grades increased by 19.1pp between those two groups (see Figure 33).

**Figure 33**

*USG-GD Comparison by Unit (Professional Studies) and Groups*



***Equity Group Status***

As shown in Table 20, the chi-square test of independence showed that there was a significant difference between the USG-GD groups and equity status groups, except for First Nations. The Cramér’s *V* statistic revealed a weak association for NESB, a moderate association for LSES and SWD, and a relatively strong association for First Nations.

**Table 20**

*USG-GD Comparison by Equity Status Group and Groups*

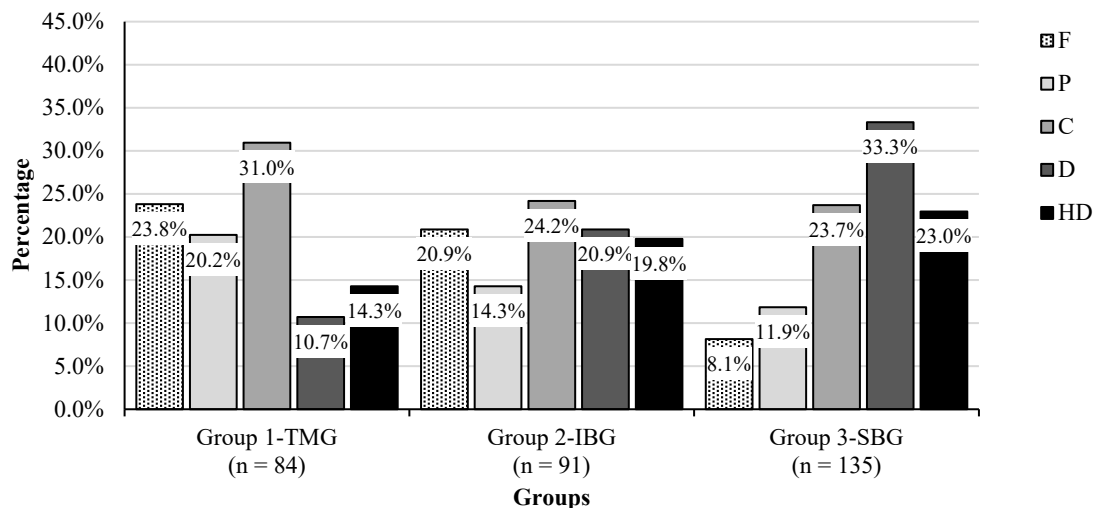
Equity Status Group	USG-GD			
	Chi-Square			Cramér’s <i>V</i>
	<i>X</i> <sup>2</sup>	<i>df</i>	<i>p</i>	<i>V</i>
SWD	26.966	8	<.001	.209
NESB	151.436	8	<.001	.181
LSES	96.101	8	<.001	.217
First Nations	10.031	8	.263	.431

All equity groups experienced reductions in F grade percentages between Group 1 and Group 2, with F grades subsequently reducing in the following Group 3. The reduction in F grade percentages between Group 1 and Group 3 was significant for all equity groups. All equity groups showed increases in D grade percentages from Group 1 to Group 2, and again for Group 2 to Group 3 except for First Nations students. All equity groups reported increases in HD grade percentages from Group 1 to Group 3 except for First Nations student. The comparison of groups, grade distribution, and equity group status is presented in the graphical representation of the findings at Figures 34-37.

As shown in Figure 34 (below), the HD grade percentage for SWD increased from Group 1 to Group 3 by 8.7pp.

**Figure 34**

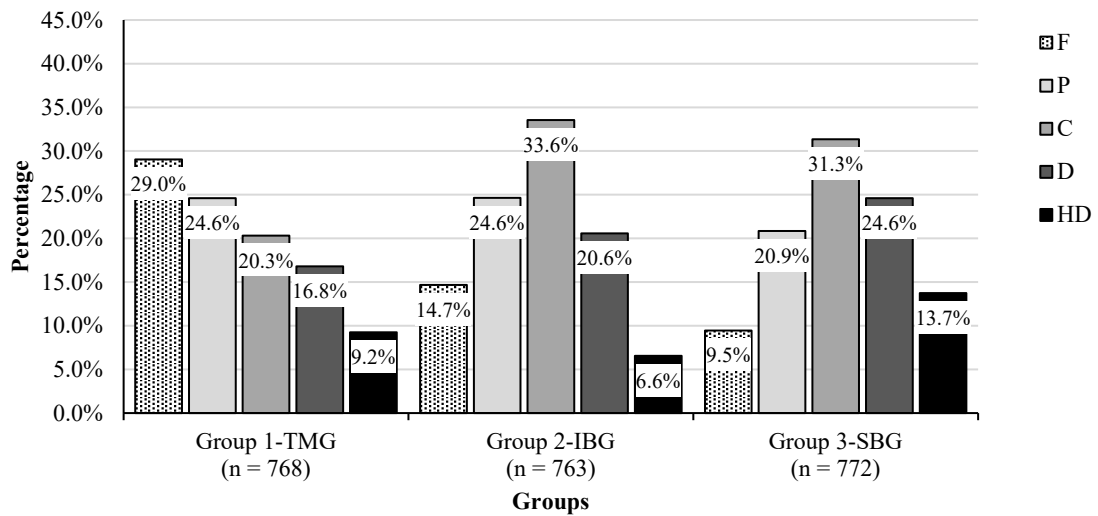
*USG-GD Comparison by Equity Group Status (SWD) and Groups*



NESB students showed a sequential increase for D grade percentages between each group. Grade percentage increases were reported between Group 1 and Group 3 for D grades (7.8pp) and HD grades (4.5pp) (see Figure 35).

**Figure 35**

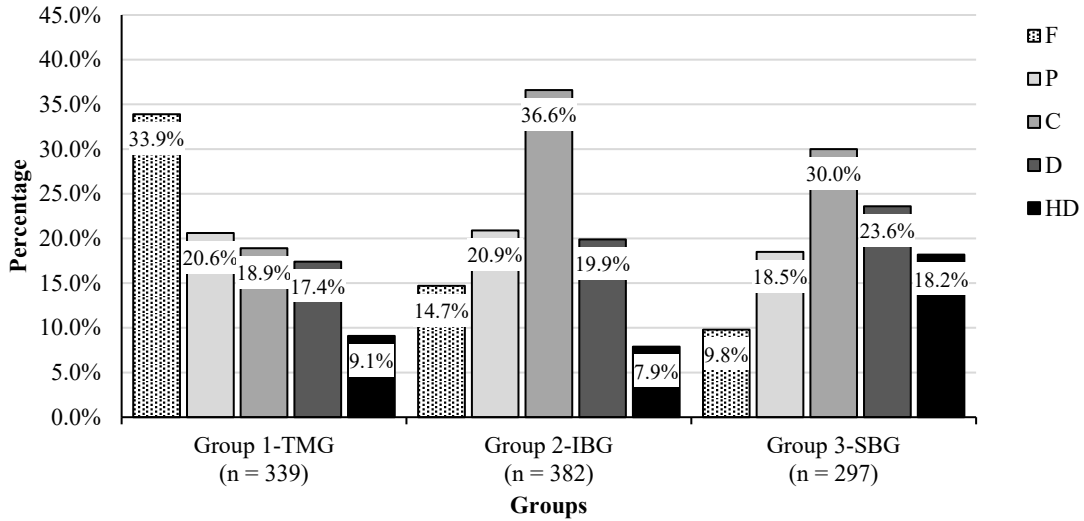
*USG-GD Comparison by Equity Group Status (NESB) and Groups*



Students from the LSES equity group showed a sequential increase for D grade percentages between each group, and reported a HD grade percentage increase between Group 1 and Group 3 of 9.1pp (see Figure 36).

**Figure 36**

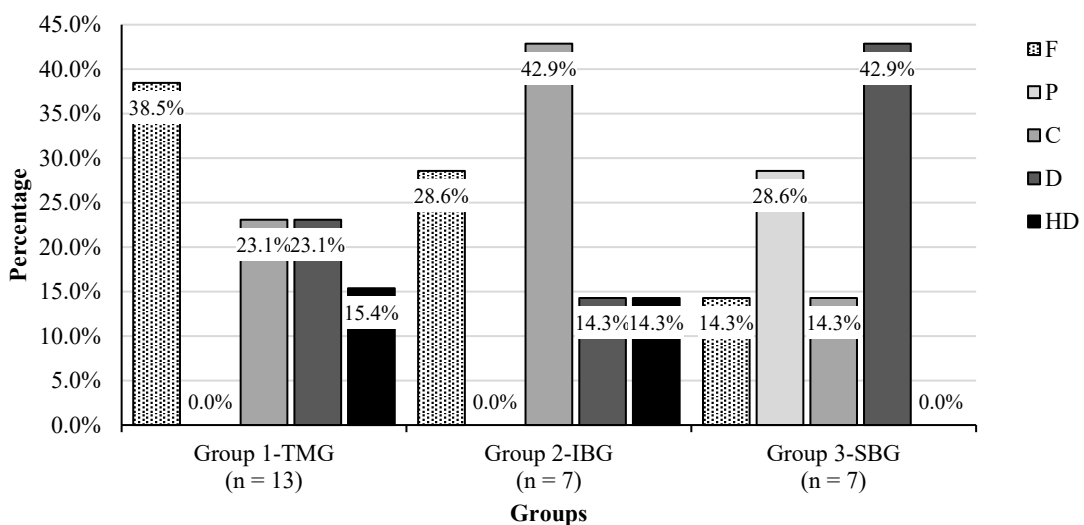
*USG-GD by Equity Group Status (LSES) and Groups*



First Nations students reported an increase in D grade percentages from Group 1 to Group 3 (19.8pp), and reported a decrease in HD grade percentages (15.4pp) with 0% HD grades reported in Group 3 (see Figure 37).

**Figure 37**

*USG-GD Comparison by Equity Group Status (First Nations) and Groups*



### *Domestic Student Status*

As shown in Table 21, the chi-square test of independence showed that there was a significant difference between the USG-GD groups and each domestic status group. The Cramér's  $V$  statistic revealed a weak association for domestic and international cohorts.

**Table 21**

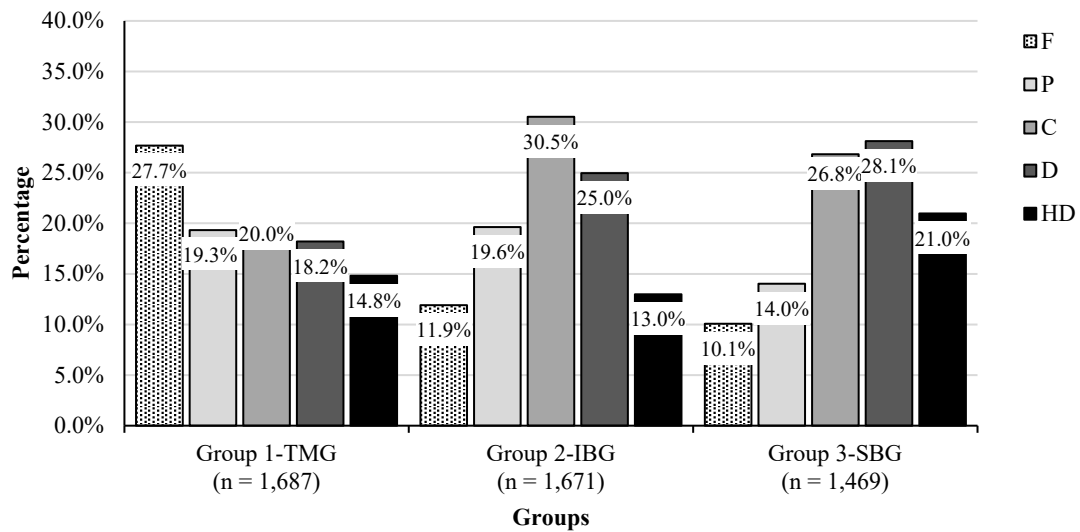
*USG-GD Comparison by Domestic Status and Groups*

Domestic Status	USG-GD			
	Chi-Square			Cramér's $V$
	$X^2$	$df$	$p$	$V$
Domestic	304.363	8	<.001	.178
International	36.174	8	<.001	.155

It was reported that domestic and international students increased the percentage of D grades from Group 1 to Group 2, and again from Group 2 to Group 3. HD grade percentages declined from Group 1 to Group 3 for data sources with an international student status. The comparison of groups, grade distribution, and domestic student status is presented in the graphical representation of the findings at Figures 38-39.

**Figure 38**

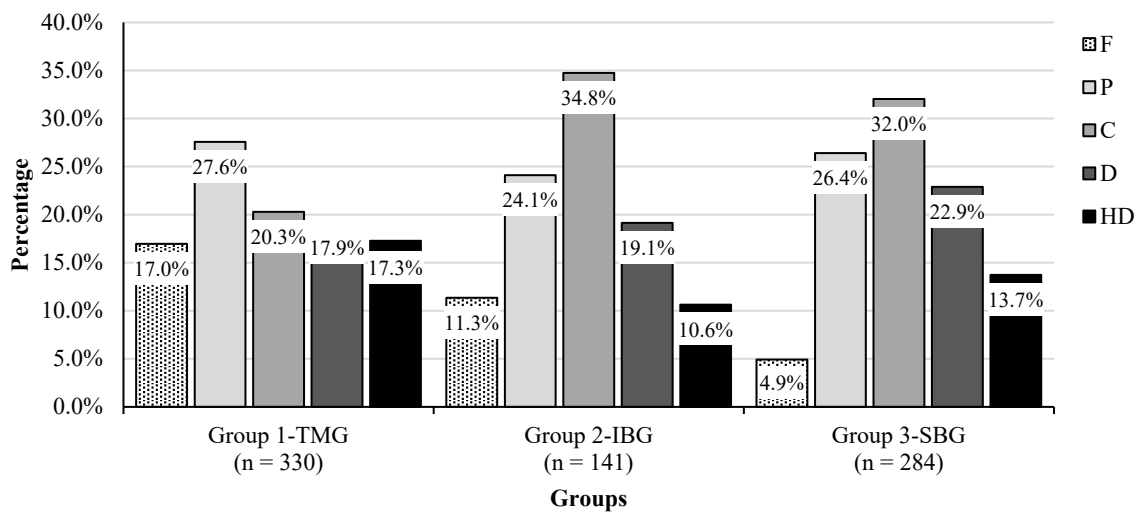
*USG-GD Comparison by Domestic Status (Domestic Students) and Groups*



International students showed a declined HD grade percentage from Group 1 to Group 2 (6.7pp) (see Figure 39).

**Figure 39**

*USG-GD Comparison by Domestic Status (International Students) and Groups*



## ***Phase 2 Results: SEUR and SESR (Student Satisfaction)***

The findings from the analysis of the SEUR and SESR variables are presented in this section.

### **SEUR**

A total of 3,166 SEU data sources were provided by the University in response to the targeted data sample request. This indicated that 56.7% of the total 5,582 data sources used as the sample for Study 1 had associated SEU data.

### ***Groups***

The non-parametric inferential test of significant differences, using the Kruskal-Wallis test, revealed a significant difference ( $p < .001$ ) between the SEUR variable and the groups ( $H(2) = 17.03, p < .001$ ). However, further analysis, using a Kruskal-Wallis test of the pairwise comparisons of the SEUR variable and the groups, reported variations in the significance of difference between the groups. Group 1 and Group 3 ( $p < .001$ ) and Group 2 and Group 3 ( $p < .002$ ) reported a significant difference in the pairwise comparisons. However, there was no evidence of a significant difference for the Group 1 and Group 2 ( $p = .331$ ) pairwise comparison.

The analysis to compare the SEUR categorical mean score ( $M$ ) of the groups, using a parametric one-way ANOVA, also reported a significance between the groups ( $F(2) = 12.78, p < .001$ ). This test evidenced an increase in the mean score for each sequential group (as shown in Table 22).



**Table 22***SEUR Comparison by Groups*

Groups	SEUR		
	<i>n</i>	<i>M</i>	<i>SD</i>
Group 1-TMG	743	4.01	1.03
Group 2-IBG	1,043	4.07	0.98
Group 3-SBG	1,380	4.21	0.86

***Units***

The non-parametric Kruskal-Wallis analysis and one-way ANOVA test both reported six units as having a significant difference between the groups ( $p < .001$ ), as shown in Table 23. Engineering and Law were the two academic disciplines with no significant difference reported for the two units examined for each discipline. No significant difference was also reported for one unit from within each of the Sport and Business academic disciplines. Five of the units reported a lower SEUR mean result in Group 3 compared to Group 1. Those units were Information Systems, Structural Kinesiology, Programming, Communication Management, and Legal Research.

The analysis of pairwise comparison evidenced that five of the 12 units had a positive significant difference ( $p < .001$ ) for all three pairwise comparison groups between Group 1 and Group 3 (Professional Learning, Economic Principles, Human Physiology, Indigenous Health, and Professional Studies), as shown in Table 23. Only two units reported a positive significant difference between the Group 1 and Group 2 pairwise comparison (Professional Learning ( $p < .001$ ) and Economic Principles ( $p = .031$ )).

The analysis to compare the SEUR mean of the units and the groups, using a parametric one-way ANOVA test, reported variations in the mean between the groups (as shown in

Table 23). Five of the units reported an increased mean from Group 1 to Group 2 and again for Group 3. However, four units reported a decreased mean between Group 1 and Group 2, and five units also reported a decreased mean from Group 1 to Group 3. Two units (Structural Kinesiology and Communication Management) reported a repeatedly declining mean each year from Group 1 to Group 2 to Group 3.

**Table 23***SEUR Descriptive and Inferential Analysis Comparison of the Units by Groups and Between Groups*

Unit and Groups				SEUR						
				Kruskal-Wallis						
								Group 1- Group 2	Group 2- Group 3	Group 1- Group 3
				<i>n</i>	<i>H</i>	<i>df</i>	<i>p</i>	<i>p</i>	<i>p</i>	<i>p</i>
Sociology				237	14.31 <sub>a</sub>	2	<.001	<.001	<.001	.858
Group 1-TMG	102	4.34	0.88							
Group 2-IBG	51	3.59	1.39							
Group 3-SBG	84	4.37	0.86							
Professional Learning				334	11.93 <sub>a</sub>	2	.003	<.001	.245	.018
Group 1-TMG	105	4.13	0.88							
Group 2-IBG	104	4.52	0.61							
Group 3-SBG	125	4.41	0.67							
Information Systems				208	4.16 <sub>a,b</sub>	2	.125			
Group 1-TMG	53	4.11	0.93							
Group 2-IBG	60	3.73	1.07							
Group 3-SBG	95	3.91	1.01							
Economic Principles				292	17.64 <sub>a</sub>	2	<.001	.031	.071	<.001
Group 1-TMG	88	3.78	1.11							
Group 2-IBG	83	4.12	0.98							
Group 3-SBG	121	4.38	0.79							

Unit and Groups	SEUR									
				Kruskal-Wallis						
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>H</i>	<i>df</i>	<i>p</i>	Group 1- Group 2 <i>p</i>	Group 2- Group 3 <i>p</i>	Group 1- Group 3 <i>p</i>
Structural Kinesiology				289	2.95 <sub>a,b</sub>	2	.229			
Group 1-TMG	43	4.40	0.76							
Group 2-IBG	110	4.22	0.76							
Group 3-SBG	136	4.18	0.80							
Human Physiology				366	7.75 <sub>a</sub>	2	.021	.425	.016	.029
Group 1-TMG	35	4.03	0.79							
Group 2-IBG	206	4.12	0.83							
Group 3-SBG	125	4.34	0.75							
Programming				110	1.26 <sub>a,b</sub>	2	.531			
Group 1-TMG	26	4.19	0.85							
Group 2-IBG	31	4.29	0.69							
Group 3-SBG	53	4.06	0.89							
Communication Management				91	1.89 <sub>a</sub>	2	.389			
Group 1-TMG	11	4.09	1.04							
Group 2-IBG	24	3.75	1.19							
Group 3-SBG	56	3.54	1.32							

Unit and Groups	SEUR									
				Kruskal-Wallis						
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>H</i>	<i>df</i>	<i>p</i>	Group 1- Group 2 <i>p</i>	Group 2- Group 3 <i>p</i>	Group 1- Group 3 <i>p</i>
Legal System				193	2.42 <sub>a,b</sub>	2	.299			
Group 1-TMG	45	3.96	1.11							
Group 2-IBG	42	4.24	0.91							
Group 3-SBG	106	4.29	0.74							
Legal Research				204	2.58 <sub>a,b</sub>	2	.275			
Group 1-TMG	57	4.32	0.69							
Group 2-IBG	51	4.43	0.76							
Group 3-SBG	96	4.19	0.93							
Indigenous Health				284	28.34 <sub>a</sub>	2	<.001	.225	<.001	<.001
Group 1-TMG	74	3.15	1.26							
Group 2-IBG	90	3.32	1.43							
Group 3-SBG	120	4.08	0.89							
Professional Studies				558	6.57 <sub>a</sub>	2	.037	.507	.056	.024
Group 1-TMG	104	3.97	1.05							
Group 2-IBG	191	4.12	0.81							
Group 3-SBG	263	4.27	0.75							

*Note.* a. The test statistic is adjusted for ties. b. Multiple comparisons were not performed because the overall test does not show significant differences across samples.

## SESR

The presentation of results for the SESR variable represent the responses from the SES target population for each group. The researcher received a total of 5,696 data sources for analysis. During the analysis it was found that not all student respondents in the data set had responded to every survey item. The data results represent those items with data recorded as responses, exclusive of null values.

### *Groups*

The categorical mean score ( $M$ ) of each survey item improved for each group as shown in Table 24 below.

**Table 24**

*SESR Comparison by Groups*

Groups	SESR		
	$n$	$M$	$SD$
Group 1-TMG	2,000	56.97	23.22
Group 2-IBG	1,811	62.01	19.33
Group 3-SBG	1,753	65.11	18.47

As shown in Table 25, the number of survey responses increased for each survey item year on year. All SESR variables showed a significant difference between the groups ( $p < .001$ ). The detailed results of the analysis for the mean SESR variable are in Table 26.

**Table 25***SESR Descriptive Comparison by Group and Between Groups*

SESR Survey Item		SESR											
		Group 1-TMG			Group 2-IBG			Group 3-SBG			Between Groups		
		<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>F</i>	<i>p</i>
Item 1	Thinking about your course: overall how would you rate the quality of your entire educational experience this year?	1,556	2.96	0.75	1,957	3.00	0.80	2,173	3.10	0.76	2	16.98	<.001
Item 2	Thinking about your course: how would you rate the quality of the teaching you have experienced?	1,535	2.95	0.79	1,936	3.00	0.80	2,141	3.13	0.74	2	25.70	<.001
Item 3	In <year of survey>, to what extent has your course been delivered in a way that is: well structured and focused?	1,515	3.93	0.85	1,906	3.97	0.89	2,051	4.04	0.84	2	7.20	<.001
Item 4	During <year of survey>, to what extent have the lecturers, tutors and demonstrators: engaged you actively in learning?	1,528	3.78	0.89	1,930	3.85	0.91	2,122	3.95	0.89	2	16.90	<.001

SESR Survey Item		SESR											
		Group 1-TMG			Group 2-IBG			Group 3-SBG			Between Groups		
		<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>F</i>	<i>p</i>
Item 5	During <year of survey>, to what extent have the lecturers, tutors and demonstrators: demonstrated concern for student learning?	1,533	3.92	0.85	1,929	3.93	0.86	2,120	4.02	0.83	2	9.16	<.001
Item 6	During <year of survey>, to what extent have the lecturers, tutors and demonstrators: set assessment tasks that challenge you to learn?	1,534	3.69	0.97	1,931	3.78	0.95	2,124	3.97	0.90	2	43.45	<.001
Item 7	During <year of survey>, to what extent have the lecturers, tutors and demonstrators: provided clear explanations on coursework and assessment?	1,530	3.62	1.011	1,929	3.73	0.98	2,123	3.84	0.98	2	22.78	<.001
Item 8	During <year of survey>, to what extent have the lecturers, tutors and demonstrators: commented on your work in ways that help you learn?	1,530	3.52	1.05	1,931	3.66	1.01	2,123	3.76	1.01	2	25.77	<.001



The non-parametric Kruskal-Wallis test provided evidence of a significant difference ( $p < .001$ ) between the SESR variable and the groups, for each survey item as reported at Table 26. Further analysis of the Kruskal-Wallis pairwise comparisons of the SESR variable reported variations in the significance of difference between the total population of each group. All SESR variables except for two (item 3 and item 5) reported a significant difference ( $p = <.050$ ) in each of the pairwise comparison groups, for every year and survey item. Item 3 and item 5 did not report a significance for the Group 1 and Group 2 pairwise comparison ( $p = .078$  and  $p = .686$  respectively for each question). However, item 3 did report a positive significant difference for the Group 2 and Group 3, and Group 1 and Group 3, pairwise comparisons ( $p = <.027$  and  $p = <.001$  respectively). Item 5 also reported a positive significant difference for Group 2 and Group 3, and Group 1 and Group 3 pairwise comparisons with both reported as  $p = <.001$ .

**Table 26***SESR Inferential Comparison of the Categories and Variables by Group and Between Groups*

SESR Survey Item		SESR						
		Kruskal-Wallis				Pairwise Comparisons		
		<i>n</i>	<i>H</i>	<i>df</i>	<i>p</i>	Group 1- Group 2 <i>p</i>	Group 2- Group 3 <i>p</i>	Group 1- Group 3 <i>p</i>
Item 1	Thinking about your course: overall how would you rate the quality of your entire educational experience this year?	5,686	39.34 <sup>a</sup>	2	<.001	.020	<.001	<.001
Item 2	Thinking about your course: how would you rate the quality of the teaching you have experienced?	5,612	49.99 <sup>a</sup>	2	<.001	.045	<.001	<.001
Item 3	In <year of survey>, to what extent has your course been delivered in a way that is: well structured and focused?	5,472	15.24 <sup>a</sup>	2	<.001	.078	.027	<.001
Item 4	During <year of survey>, to what extent have the lecturers, tutors and demonstrators: engaged you actively in learning?	5,580	37.06 <sup>a</sup>	2	<.001	.016	<.001	<.001
Item 5	During <year of survey>, to what extent have the lecturers, tutors and demonstrators: demonstrated concern for student learning?	5,582	19.51 <sup>a</sup>	2	<.001	.686	<.001	<.001
Item 6	During <year of survey>, to what extent have the lecturers, tutors and demonstrators: set assessment tasks that challenge you to learn?	5,589	86.10 <sup>a</sup>	2	<.001	.006	<.001	<.001

SESR Survey Item		SESR						
		Kruskal-Wallis				Pairwise Comparisons		
		<i>n</i>	<i>H</i>	<i>df</i>	<i>p</i>	Group 1- Group 2	Group 2- Group 3	Group 1- Group 3
						<i>p</i>	<i>p</i>	<i>p</i>
Item 7	During <year of survey>, to what extent have the lecturers, tutors and demonstrators: provided clear explanations on coursework and assessment?	5,582	47.81 <sup>a</sup>	2	<.001	<.001	<.001	<.001
Item 8	During <year of survey>, to what extent have the lecturers, tutors and demonstrators: commented on your work in ways that help you learn?	5,584	51.87 <sup>a</sup>	2	<.001	<.001	.002	<.001

*Note.* <sup>a</sup>. The test statistic was adjusted for ties.

### ***Phase 3 Results: RI (Student Retention)***

The findings from the analysis of the RI variable are presented in this section. As described in the data analysis section, the data results for RI represent unique students from within the target population and sample.

#### **Groups**

Over the three-year period, 65.4% was reported as the average rate of student retention for the target population and sample. The chi-square test of independence showed that there was no significant difference between the groups and the RI variable ( $\chi^2(2, N = 3,549) = 3.51, p = .173$ ). The Cramér's  $V$  statistic was .03, representing a negligible association between the groups and the RI variable.

As reported in Table 27, a decrease in RI percentage points for students retained occurred between Group 1 and Group 2 (2.7pp), while retention shown to have increased again by Group 3 (when compared to Group 1) but with little significance in the retention percentage (0.9pp). The increase in retention between Group 2 and Group 3 was 3.6pp.

**Table 27**

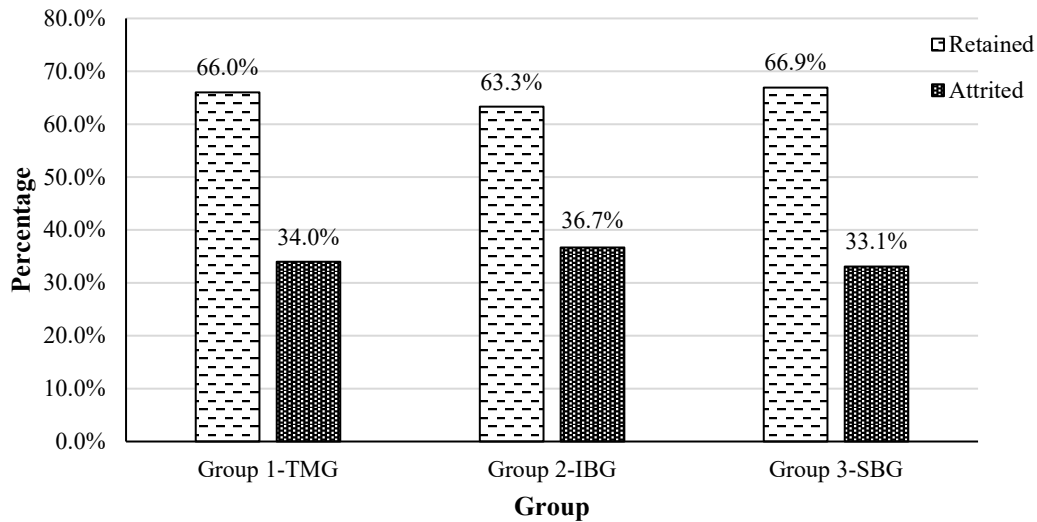
*RI Comparison by Groups*

Groups	RI			
	Retained		Attrited	
	<i>n</i>	%	<i>n</i>	%
Group 1-TMG	866	66.0	446	34.0
Group 2-IBG	716	63.3	415	36.7
Group 3-SBG	740	66.9	366	33.1

The small improvement in student retention from Group 1 to Group 3 (0.9pp) is shown in the graphical representation of the findings in Figure 40.

**Figure 40**

*RI Comparison by Groups*



### **Academic Disciplines**

The chi-square test of independence showed that only Law and Health academic disciplines had a significant difference between the groups and the RI variable, as reported in Table 28. Three academic disciplines reported a declining percentage of students retained from Group 1 to Group 3 (Arts and Ed, Business, and Sport). While Engineering reported a large increase in students retained between Group 1 and Group 2 (62.0% and 80.4% respectively), that percentage rate reduced again in Group 3 and the sample data was smaller than for other academic disciplines.

As shown in Table 28, the Cramér's  $V$  analysis revealed a negligible association between the groups and the RI variable for all academic disciplines, except for Engineering and Law, which reported weak associations.

**Table 28***RI Comparison by Academic Discipline and Groups*

Academic Discipline and Groups	RI							
	Retained		Attrited		Chi-Square			Cramér's <i>V</i>
	<i>n</i>	%	<i>n</i>	%	<i>X</i> <sup>2</sup>	<i>df</i>	<i>p</i>	<i>V</i>
Arts and Ed					0.21	2	.900	.08
Group 1-TMG	246	69.5	108	30.5				
Group 2-IBG	145	67.8	69	32.2				
Group 3-SBG	125	69.4	55	30.6				
Business					2.07	2	.355	.05
Group 1-TMG	261	66.2	133	33.8				
Group 2-IBG	152	63.6	87	36.4				
Group 3-SBG	191	61.0	122	39.0				
Sport					0.06	2	.972	.02
Group 1-TMG	21	55.3	17	44.7				
Group 2-IBG	45	53.6	39	46.4				
Group 3-SBG	45	52.9	40	47.1				
Engineering					4.27	2	.119	.17
Group 1-TMG	31	62.0	19	38.0				
Group 2-IBG	41	80.4	10	19.6				
Group 3-SBG	36	67.9	17	32.1				
Law					7.11	2	.029	.16
Group 1-TMG	68	61.8	42	38.2				
Group 2-IBG	30	47.6	33	52.4				
Group 3-SBG	62	68.9	28	31.1				
Health					9.95	2	.007	.09
Group 1-TMG	239	65.3	127	34.7				
Group 2-IBG	303	63.1	177	36.9				
Group 3-SBG	281	73.0	104	27.0				

## Equity Group Status

The chi-square test of independence did not determine any significant difference between the RI variable groups and equity group status. SWD and LSES status groups both reported an increase in the number of students retained from Group 1 when compared to Group 3. NESB remained relatively the same. While retention improved for First Nations students from Group 1 to Group 3 (16.7pp), the sample data size was small. As shown in Table 29, the Cramér's  $V$  analysis revealed a negligible association between NESB and LSES equity status groups and a weak association for SWD and First Nations students.

**Table 29**

*RI Comparison by Equity Group Status and Groups*

Equity Group Status	RI							
	Retained		Attrited		Chi-Square			Cramér's $V$
	$n$	%	$n$	%	$X^2$	$df$	$p$	$V$
SWD					5.42	2	.067	.16
Group 1-TMG	30	50.8	29	49.2				
Group 2-IBG	35	57.4	26	42.6				
Group 3-SBG	61	69.3	27	30.7				
NESB					0.34	2	.842	.02
Group 1-TMG	344	72.1	133	27.9				
Group 2-IBG	317	70.8	131	29.2				
Group 3-SBG	346	72.4	132	27.6				
LSES					2.27	2	.322	.06
Group 1-TMG	124	61.1	79	38.9				
Group 2-IBG	138	60.8	89	39.2				

Equity Group Status	RI							
	Retained		Attrited		Chi-Square			Cramér's <i>V</i>
	<i>n</i>	%	<i>n</i>	%	<i>X</i> <sup>2</sup>	<i>df</i>	<i>p</i>	<i>V</i>
Group 3-SBG	133	67.2	65	32.8				
First Nations					0.58	2	.748	.19
Group 1-TMG	3	33.3	6	66.7				
Group 2-IBG	1	25.0	3	75.0				
Group 3-SBG	2	50.0	2	50.0				

### Domestic Student Status

The chi-square test of independence did not report any significant difference between the RI variable, groups, and either student cohort (i.e., domestic or international). The comparison of international students to domestic students evidenced that international students were retained at a lesser percentage each sequential year from Group 1 to Group 3, while domestic students reported a 2.8pp improved retention rate for the target population and sample.

As shown in Table 30, the Cramér's *V* analysis revealed a negligible association between the RI variable, the groups, and domestic student status for both domestic and international student cohorts.



**Table 30***RI Comparison by Domestic Status and Groups*

Domestic Status and Groups	RI										
	Retained				Attrited				Chi-Square		Cramér's <i>V</i>
	<i>n</i>	%	<i>n</i>	%	<i>X</i> <sup>2</sup>	<i>df</i>	<i>p</i>	<i>V</i>			
Domestic					2.10	2	.351	.03			
Group 1-TMG	654	61.8	404	38.2							
Group 2-IBG	651	61.9	401	38.1							
Group 3-SBG	611	64.6	335	35.4							
International					0.55	2	.761	.04			
Group 1-TMG	212	83.5	42	16.5							
Group 2-IBG	65	82.3	14	17.7							
Group 3-SBG	129	80.6	31	19.4							

**Discussion**

The purpose of Study 1 was to address the research aims related to the impact of the FYM and BM on student outcomes, utilising quantitative data analysis. The results showed that in comparison to TMG students, the SBG who undertook FYM and BM in the second year of implementation had: (a) typically performed better academically; (b) were more satisfied with their student experience as it relates to teaching quality; and (c) were retained in their studies at a slightly higher rate. While students in the IBG also performed better academically, the data demonstrated varying results for student satisfaction and student retention within units and the groups in that initial year of change from the traditional mode. These variances were evident in the results for the

IBG when compared to the TMG, where some units reported lower student satisfaction rates, and the IBG student retention rate was 2.7pp lower than the TMG.

Furthermore, the Australian Government Higher Education Statistics (HES) (Department of Education, 2022) were used to compare the Study 1 findings with publicly reported government data for the University's full-year commencing undergraduate populations against sector performance (see Data Access earlier in this chapter). This data was the most current data at the time of analysis that was relevant to this research, and contained historical data published to analyse the University's population, group, and sector comparisons for the groups. These data reports were accessed to compare full-year academic success and student retention rates, in contrast to the findings of the current study, throughout the discussion below.

### ***Changes in Student Academic Success***

This first phase of Study 1 revealed findings that the intervention of the FYM and BM contributed to a significant overall positive effect on pass rates, study marks and grade results for the IBG (2018) and the SBG (2019), when compared to the TMG (2017). The results evidenced the efficacy of the University's educational reform in supporting an improvement in student academic success when compared to the achievement of learners who studied in the traditional mode. The results also indicated that the two interventions of the FYM and BM contributed to greater academic success.

The findings indicated that the positive impact on student academic success was sustained beyond the IBG. When compared to the TMG, the IBG and SBG demonstrated increases in pass grade percentages of 14pp and 16.77pp, respectively. Following the first year of FYM and BM implementation for the IBG, the SBG evidenced a small increase in pass grade percentages (2.7pp) in the subsequent year.

This finding evidenced that the greatest increase in pass grade percentages occurred in the inaugural year of the change and that the change in improved outcomes for student academic success (when compared to the TMG) were sustained beyond the IBG. This demonstrated that the results in the first year of implementation was not a once-off phenomenon for the educational reform. This major finding that students in both the IBG and SBG demonstrated improved pass grade percentages is consistent with previous research that has shown first-year undergraduate students studying in the FYM and BM have improved academic success across a range of academic disciplines (Howe et al., 2019; Jackson et al., 2022; McCluskey et al., 2021). A review of intensive courses across disciplines concluded that various courses from a range of disciplines could deliver alternative and high-quality learning in the intensive time-shortened formats (Daniel, 2000).

Study 1 further evidenced the improved student academic success outcomes in the FYM and BM from the increase in mean study marks of students reported for the TMG to the IBG (5.04 mean increase) and the TMG to the SBG (8.14 mean increase). In a review of similar research studies on intensive course formats in HE, Daniel (2000) concluded that courses taught in this intensive mode often produce comparable or greater learning outcomes in comparison to traditional mode courses. The limited research on BM delivery has also revealed that, compared to the traditional mode, positive student academic performance was evident for block or intensive modes of learning and teaching (Buck & Tyrrell, 2022; Burton & Nesbit, 2008; Dixon & O’Gorman, 2020; Sewagegn & Diale, 2021). One UK university study confirmed that students studying in an immersive four-week BM compared to the traditional mode achieved significantly higher grades, improving student marks by approximately 4pp (McKie, 2021; Turner et al., 2021). Earlier research has also indicated that the efficacy

of the BM on academic achievement could be due to students having a reduced cognitive load and “fewer competing cognitive demands” (Richmond et al., 2015, p. 31) because of a focused approach to study (undertaking only one subject at a time during a semester period). The proposition that academic performance can be improved through a focused learning approach and intensive mode delivery has been reported in previous research studies as positively influencing student achievement through enhanced learner confidence, concentration, time management, social connection, and motivation to achieve (Buck & Tyrrell, 2022; Daniel, 2000; Davies, 2006; Kucsera & Zimmaro, 2010). Furthermore, it has also been found that BM delivery can give students the perception of having “no margin for error” (Buck & Tyrrell, 2022, p. 11), which could be a further factor that has influenced the academic success of students examined in Study 1.

The important finding that academic success improved for students who studied in the FYM and BM compared to traditional mode, may also be an indicator of the effectiveness that the FYC has had on student learning and the University’s reform of curriculum and pedagogy. The literature reinforces this finding by evidencing that the FYC introduced transition pedagogy within the FYM that was influential in the design of a FYE to improve academic success outcomes for the first-year undergraduate student cohort (Howe et al., 2019; Kift, 2009; McCluskey et al., 2019, 2021).

Evidence generated in Study 1 revealed that for students from equity group backgrounds, compared to traditional mode, the FYM and BM also contributed to improving academic success. This was evident in the higher pass rates and study marks in BM for students from equity groups. This result is important because improved academic success in all HE cohorts is “essential to achieve social justice and economic efficiency” (Salmi & D’Addio, 2021, p. 47). When comparing the equity group cohorts

who undertook their studies in the TMG against the cohort in the SBG, pass rates for SWD improved by 15.7pp, those from NESB by 19.5pp, those from LSES by 24.1pp, and those who were First Nations students by 24.2pp. Research by Jackson et al. (2022) also found that the University's new educational reform delivered by the FYC proved successful in improving the outcomes for equity group students, with the progression in academic success sustained into the SBG. This finding aligns with other relevant research that indicates that one of the reasons for the positive outcomes for these student cohorts may be the sense of belonging that BM fostered for students in the FYC. Specifically, the student-centred learning design, interactive and collaborative small classes, undertaking one unit at a time, active learning, and collaborative work, all of which aim to reduce the complexity of study for students, could be viewed as possible contributors to these success rates (Jackson et al., 2022; Samarawickrema & Cleary, 2021; Winchester et al., 2021).

Not only did SWD achieve improved pass rates when learning within the FYM and BM, their mean marks also increased from 55.66 in the TMG to 67.24 in the SBG. Overall, the improvement in academic success positively influenced the grade distribution for SWD, with a significant improvement demonstrated in D grades (22.6pp) and HD grades (8.7pp). SWD are the "fastest-growing equity group" (Harvey et al., 2017, p. 41) in Australian HE, due largely to the prominence of students with mental health conditions. An earlier study reported that poor mental health in students could be associated with a university's curriculum and assessment structure (Brett, 2016). It was evident from the results of Study 1 that the curriculum and assessment reform was effective in improving the academic success outcomes for this cohort. This finding is aligned with the work of Sengupta et al. (2019), who reinforced the

importance of a successful transition outcome to the likelihood of these students achieving continued academic progress and retention in their studies.

Earlier research studies highlight that intensive BM delivery has risks to staff and students that must be carefully planned for and mitigated (Male, 2020; Male et al., 2016) by universities. It was predicted that this University's intensive BM study model might lead NESB students or SWD to experience challenges with needing more time to learn compared to other students (Male, 2020). Academic success outcomes evidenced in Study 1 found that this was not the case for the majority of students in these two equity groups who studied in BM.

Possible reasons for the improved academic success of SWD can be drawn from the findings of a UK research study, which highlighted barriers to learning in traditional mode for SWD (Fuller et al., 2004). The study found that 44% of students experienced barriers to learning connected to the lecture-style teaching format. Lectures for SWD at the UK university were reported as lacking the opportunity for students to engage with teachers and contribute to discussions, lacking suitable adjustments for their learning needs, and indicated frustration with the learning process, the environment, and ultimately their relationships with some teachers. Other research by a group of Australian and New Zealand universities highlighted the impact that these barriers to learning have on SWD. Dryer et al. (2016) from their research study that these types of barriers experienced by SWD in traditional mode learning "are likely to adversely impact on their psychological well-being, motivation to study and their quality of life; which in turn may influence their academic attainments" (Dryer et al., 2016, p. 426). These findings contrast with those of the FYM and BM and the associated interactive and small classes.

The data sample used in Study 1 was comprised of a large percentage (41.3%) of NESB data sources. The results from the NESB equity group analysis of the data sources found that the data used in the analysis was associated with 1,403 unique first-year NESB students over the three groups. The IBG and SBG groups only contained data that was representative of 66% ( $n = 926$ ) unique students associated with these two groups of students who undertook the FYM and BM groups. It is evident from the pass rate improvements for this large NESB cohort, representing 103 language backgrounds, that the educational reform was effective in improving their academic success outcomes and that this result was achieved while supporting the engagement of these students with diverse languages.

NESB students, who are still developing various levels of English language proficiency to undertake first-year HE, may experience a lack of engagement with the learning process. This lack of NESB student learner engagement may be driven by anxiety, lower levels of confidence to verbally communicate with peers and teachers, or a lack of motivation and frustration that impacts their academic success (Mestan, 2016; Murray, 2010). It is evident from Study 1 that the FYM and BM improved the first-year student learning environment to support NESB students in achieving greater academic success than in the previous traditional mode. While pass rates improved significantly for NESB students, the grade distribution also shifted upwards, indicating not only a decrease in fail grades but also a potential increase in learning (Jackson et al., 2022). The NESB cohort in the SBG demonstrated a 7.8pp improvement in D grades and a 4.5pp improvement in HD grades when compared to the NESB cohort in the TMG. This improvement is important when considering the size of the sample and the reported challenges of this cohort in HE. As detailed by Harvey et al. (2016) in their reflection on the efficacy of equity policy in Australian HE, NESB students report higher unit fail

rates than English-speaking students and generally remain disadvantaged in relation to achievement (Harvey et al., 2016). Mestan (2016) also reported that improving academic success rates for NESB students requires responses that are deep and broad, including reform to pedagogy and curriculum. This was possibly the specific response that occurred through the University's establishment of a dedicated FYC that led the implementation of educational reform for all first-year undergraduate students.

Within the NESB equity group, the international student from non-English speaking backgrounds represented 26.8% of these unique student records. The international student cohort who studied in BM also achieved significantly higher pass rates when compared to traditional mode. The SBG international cohort reported a 12.1pp increase in pass grades compared to the TMG, which was a rate of increase lower than the SBG domestic cohort (17.6pp). While the FYM and BM were not intentionally designed for an international student cohort, the improved first-year learning and teaching approach was effective in positively impacting the academic success of this cohort and in increasing academic pass rates considerably in the two years post implementation of the educational reform.

The influence of the FYM and BM's teaching approaches (student-centred, engaged, and active) may have been a factor in the significant improvement demonstrated in the academic success outcomes for students from LSES backgrounds. The SBG reported a reduced fail grade percentage of 24.1pp for LSES students compared to the TMG. It is evident that the FYM and BM were effective in improving the academic success of first-year LSES students represented by 18.2% of the data sources in this research. Promoting academic success is reported as being attainable when students from a diverse range of cultures and backgrounds can learn through the design of inclusive curriculum and learning environments for (Harvey, Andrewartha et al., 2016). The



literature indicated that, nationally, LSES students are not less likely to complete their studies once they commence study with Australian HE institutions as they account for “approximately 96% of the retention and success rates of domestic students overall” (Naylor et al., 2013, p. 6). However, the increased academic success rates for students from LSES backgrounds examined in Study 1 demonstrates that this may not have been the case for the TMG (at the institutional level) prior to the intervention of the FYM and BM.

First Nations students in the SBG achieved pass rates at 24.2pp higher than the TMG and reported a 4.19 mean score increase (for the same group comparisons). While these pass rates indicated that First Nations students had improved academic success, this was not consistent across the results in the grade distribution analysis. First Nations student D grades increased from the TMG (23.1%) to the SBG (42.9%). However, HD grades reduced from 15.4% to 0% for these students in the same group comparison. Due to the small number of First Nations data sources for the IBG and SBG ( $n = 7$  for both groups), this was not a statistically significant pattern of change. A previous research study into the academic success of First Nations students in Australian HE highlighted the unique needs of this cohort related to their academic achievement (Frawley et al., 2017). The study found that academic success for this cohort is considered to be beyond the individual and extends to families and communities, with self-efficacy found to be the essential factor in determining academic success for First Nations students. The study also found that academic and learning support services beyond the classroom were important in assisting First Nations students in building their self-efficacy and developing confidence in mastering academic tasks to achieve academic success.

A previous study examining the effects of BM teaching on equity group students, at the University at which Study 1 was undertaken, reported an improvement in academic

success. Consistent with Study 1, Winchester et al. (2021) found that there were positive impacts of the FYM and BM on NESB, LSES and First Nations students in the initial block group, with reduced fail grade rates compared to the traditional mode group. Furthermore, the reduction in fail grades was reported as significant for LSES and NESB student cohorts in the authors' research findings. While Study 1 revealed that students typically achieved higher academic outcomes, the results also revealed varying levels of percentage increase for student academic success across the six different academic disciplines and twelve units associated with each discipline. Overall, the FYM and BM drove an upwards shift in grade distribution, but the results varied for different cohorts.

The Buck and Tyrrell (2022) study also found that while students achieved higher grades in intensive mode, there were variances across the group. These researchers stated that these variances need to be understood through research over a longer duration, to identify the influences on them and the advantages for later years of study (Buck & Tyrrell, 2022). This is also the case for the University in Study 1, whereby data is limited to the first two years of learning and teaching for the initial delivery years of the FYM and BM and the educational reform is to some degree still considered "experimental" (Jackson et al., 2022, p. 17) during these initial years. In an educational reform context, where implementation and design phases are consolidated (as was the case at the University), the results can vary. This variation is not always an indicator of the efficacy of the reform but may be symptomatic of the need for more time for the reform to mature through feedback on shared experiential learnings, improvements made through iterative cycles, research, and addressing the unknowns that may have emerged (Snyder, 2013). This may have been the case in Study 1, leading to variances in student academic success outcomes in the first two years of the FYM and BM.

Possibly this is due to the model being implemented widely across all undergraduate first-year academic disciplines, and not through an iterative and tailored process of design and implementation across the University. Potentially, the variance in student academic success may also be due to the significant renewal required of the curriculum to ensure that the units were adequately prepared for the BM's new design and delivery principles within the time available to implement successfully (Howe et al., 2019; McCluskey et al., 2021; Oraison et al., 2020; Samarawickrema & Cleary, 2021). More specifically, the BM learning and teaching method may not be effective for all courses where content workload for students cannot be, or is not, effectively redeveloped by academic teaching staff to an intensive BM timeframe (McKie, 2022).

### ***Sector Contrasts in Academic Success Outcomes***

Favourable results of the University's educational reform were also evident in the publicly reported institutional HES data for success rates, which were benchmarked at the sector, national and state level. The success rate data reported by HES included the total commencing bachelor student population for each year. The HES success rate is a measure of academic performance that compares the EFTSL of units passed to the EFTSL of units attempted (DESE, 2023c). While these criteria and calculations are not an exact match of the methods used in this research, the Australian HES data provides a high-level data comparison from which the efficacy of the FYM and BM can be compared for the commencing bachelor student population for each group analysed in Study 1.

When comparing these results beyond the institution (i.e., within the sector and across the entire commencing bachelor student population), the findings showed that improvements in student academic success outcomes were consistent with the findings drawn from the sample used in Study 1. The HES data (DESE, 2022) reported that the

University's success rate for all commencing bachelor student populations of each group improved year on year (76.86%, 86.22% and 87.81% for 2017, 2018, and 2019 years, respectively). In 2017 (the TMG), the University's entire commencing bachelor student population reported a success rate lower than the HEI state and national averages. However, the University's success rate for the entire first-year population increased by 10.95pp from 2017 to 2019 (TMG to SBG). In comparison to other HEIs, the University was successful in increasing success rates above the HEI state total success rate in 2019 (85.15%) and increased the institutional success rate above the average HEI national total success rate in each of the 2018 and 2019 cohorts (84.77% and 85.14% respectively). Furthermore, the 2020-year results reported by DESE (2022) evidenced continued improvement in success rates for the University's next and third commencing cohort in the FYM and BM (90.14%) that also exceeded the state total success rate (89.46%) and national total success rate (86.43%) for that year's entire commencing bachelor student population of HEIs. A qualitative study in a US University, comparing the improved academic performance of students in intensive mode to traditional mode (Scott, 2003), examined student perspectives on why they believed their academic success improved in intensive mode courses compared to traditional mode courses. Insights from students reported that they were able to fully focus their efforts, maintained better stamina due to the shorter duration, and were better at retaining and synthesizing concepts.

When comparing the University's domestic student cohort with sector results, the success rate for each commencing domestic bachelor student population also improved year on year at the University (74.64% in 2017, 85.15% in 2018 and 87.11% in 2019). In 2017, this domestic student cohort of the TMG reported a success rate lower than the HEI state and national averages. However, the introduction of the educational reform

increased success rates for the entire population from 2017 (TMG) to 2019 (SBG) by 2.15pp. This increased success rate for the University population was lower than found in the Study 1 sample data (17.6pp). However, the difference was still favourable at the total population level for a much larger data sample. In comparison to other HEIs, the University increased success rates above the HEI state total in 2019 (86.66%) and increased the institutional success rate above the HEI national total for success rates in 2018 and 2019 (84.34% and 84.86%, respectively) (DESE, 2022).

The success rate for the University's international student cohort, for each group's commencing bachelor student population, improved year on year (82.63% in 2017, 88.70% in 2018 and 89.36% in 2019). In 2017 (TMG), the University's entire commencing overseas bachelor student population reported a success rate lower than the HEI state and national averages (DESE, 2022). However, the success rate increased by 6.73pp from 2017 (TMG) to 2019 (SBG). This increased success rate for the University population of first-year international students was lower than found in the Study 1 sample data (12.1pp). However, the difference was still favourable at the total population level for a much larger data sample. In comparison to other HEIs, the University raised success rates above the HEI state total in 2018 and 2019 (87.93% and 87.25%, respectively) (DESE, 2022). The University also elevated the institutional success rate above the HEI national total success rate in 2018 and 2019 (86.22% and 86.02%, respectively). The HES data also showed a favourable improvement in the academic success outcomes for the commencing bachelor student population for each of the University's groups, from TMG to IBG and from IBG to SBG. This evidence at the population level, that the educational reform led to improved student academic success outcomes for all equity categories and sequential groups, was consistent with the Study 1 findings.

The consistent and positive findings from the Study 1 analysis and within the data revealed in the HES, clearly demonstrated that the FYM and BM was a sustainable educational reform for first-year undergraduate education that improved student academic success (as measured by study grades and marks). However, other factors may have influenced individual students who did not achieve satisfactory academic success outcomes as measured by pass grades, marks or grades. From the literature, it is acknowledged that “academic success has been attributed to student factors as well as teaching factors” (Cachia et al., 2018, p. 435) which assists in considering the contribution students in the current study have made to their individual academic success within the learning environment enabled by the FYM and BM. These factors include the individual attributes that students bring to learning that contribute to their academic success and can include their learning style, intelligence, motivation, prior learning, confidence, time management skills, study engagement, and commitment (Cachia et al., 2018; Mihaela, 2015; Stock et al., 2018).

### ***Pattern Variation of Student Satisfaction Across FYM and BM Implementation***

Student satisfaction ratings associated with the traditional mode and FYM and BM groups were analysed from two perspectives (units and courses) drawn from two data sources. The first was the SEUR student satisfaction rating from each group’s feedback on the quality of the unit. Student satisfaction was rated by each group (TMG, IBG and SBG) within the sample data criteria of Semester 1 units. The second was the SESR student satisfaction ratings given by students for TQIs regarding their perceptions of the quality of teaching and overall satisfaction in first year of their course. SESR ratings for each group represented the ‘SES target population’ (see Variables and Data Sources) of commencing undergraduate target population correlating with that year and the groups used in this research (i.e., 2017, 2018, and 2019). The analysis results from certain

aspects of these two student satisfaction surveys evidenced a transitioning pattern of student satisfaction in the first two years of the educational reform.

The overall SESR analysis of the commencing first-year student population in 2018 and 2019 evidenced that students who studied in the FYM and BM were more satisfied with teaching quality than those who had studied in the traditional mode. In 2017, prior to the FYM and BM implementation, the University had the lowest university ranking in Australia in the 2017 SES (QILT, 2018). Undergraduate student satisfaction with the quality of their entire educational experience was rated at (72.6%). In the same year, the University also had the second lowest ranking nationally for teaching quality (72.9%) for the same cohort. These findings demonstrate that the University's intervention of the FYM and BM sought to address the significant challenges it faced concerning student satisfaction with teaching quality using the traditional mode of education.

Study 1 reflected similar findings to the 2019 SES and found that the FYM and BM effectively improved student satisfaction ratings between the TMG and the SBG. The Study 1 SESR analysis showed that the University increased the mean score for first-year undergraduate student satisfaction with teaching quality by 8.14 points between those two groups. This finding is comparable to the 2019 SES report, which showed undergraduate student satisfaction ratings for overall teaching quality as being 5.2pp higher (78.1%) than those students who studied in the traditional mode of delivery in 2017 (QILT, 2020). The 2019 SES (QILT, 2020) results also reported that 75.4% of undergraduate students were satisfied with the quality of their entire educational experience, representing an increase of 2.8 percentage points compared to the student satisfaction ratings of those students who studied in the traditional mode in 2017 (72.6%) (QILT, 2018). This finding, that student satisfaction increased between the traditional mode and the FYM and BM, is largely consistent with comparable research

studies of student satisfaction evaluations that examine BM and traditional mode (Buck & Tyrrell, 2022; Klein et al., 2019; Loton et al., 2020; McCluskey et al., 2019).

A US study conducted by Kucsera and Zimmaro (2010) indicated that student evaluations of the overall instructor ratings on evaluations of teaching effectiveness did not significantly differ between intensive mode courses and traditional mode courses. This study was unique in that the investigations into the differences in teacher effectiveness were conducted within the same course being taught across a range of teaching departments in both intensive and traditional modes in the same year. Their overall findings concluded that “intensive courses may be as or more effective than those presented in traditional formats” (Kucsera & Zimmaro, 2010, p. 62), as was the finding in Study 1. In comparison, an Australian university study (Whillier & Lystad, 2013) also evaluated student satisfaction for a new intensive mode neuroanatomy unit (delivered over one seven-week session) compared with the traditional mode (delivered over two 13-week sessions). It is not clear from the study if students were undertaking one unit at a time in either mode but both unit study modes provided the same materials (quality and quantity), the same teachers and the same total hours (over a shorter timeframe). The study found that students were equally satisfied between the delivery modes and that students undertaking the unit in the intensive mode were more satisfied with their practical laboratory classes. Student preference for the intensive mode of delivery over the traditional mode was also evident in the study, indicating that intensive mode was a flexible alternative for particular student demographics (e.g., maturity, lifestyle). The equal student satisfaction rating between modes was despite the finding that students in the new intensive mode had less favourable academic success compared to the students who studied in traditional mode. The study indicated that neuroanatomy is a subject that requires “difficult theoretical and spatial integration that



needs time to develop” (Whillier & Lystad, 2013, p. 291). The study also found that further research is needed to adapt how the subject is taught using innovative methods of learning and teaching for intensive mode. The findings of this study differed from Study 1, which found that students achieved improved academic success outcomes and indicated higher satisfaction ratings in the SES.

An important pattern relating to student satisfaction that demonstrated variation was evident from the analysis of the SESR at the individual TQI level during the first year of the FYM and BM implementation. The first TQI item measured responses to the question ‘to what extent has your course been delivered in a way that is: well structured and focused?’, and the second TQI item measured responses to the question ‘to what extent have the lecturers, tutors and demonstrators: demonstrated concern for student learning?’. Both of these TQI survey items are designed to reflect aspects of how positively students rate teaching quality and practices (QILT, 2021). The student satisfaction rating differences between the TMG and IBG showed no significance for these two TQI survey items. The response rating from IBG first-year students is an indicator of their lived student experience in that year. Potentially, the IBG of students experienced some disruption to their first-year of study due to this being the first year the University had operated a FYC and transitioned over 4,500 first-year students into the one multi-disciplinary college on their commencement of study. That change, coupled with the onboarding of new FYC teaching staff (Howe et al., 2019), may have impacted the perspectives of students from the IBG for those two aspects of the SES TQI. However, student satisfaction ratings for these two items of the SESR did improve for the SBG, and a significant difference was reported when compared to the TMG. This result for the SBG may indicate that, in the second year of implementation, the

FYC was more effective in delivering a new learning and teaching model with a curriculum that was inclusive, student-centred, and engaging (Oraison et al., 2020).

Institutional data pertaining to student satisfaction provides a stronger insight when considered across the full range of presentation perspectives. Specifically, the SESR findings reveal student satisfaction ratings in the context of the FYE and their course of study. However, the analysis of SEU data highlights group variances in student satisfaction regarding the quality of a unit. The SEUR mean score only revealed a small increase for student satisfaction from the TMG to the IBG (0.06 points) and from the IBG to the SBG (0.14 points). The difference was found to be significant for all group-level comparisons, except for the TMG to the IBG. Variances were identified in the comparison of units within the IBG group level. Four of the twelve units reported lower student satisfaction rates in the IBG compared to the TMG (i.e., Sociology, Information Systems, Structural Kinesiology, and Communication Management). Only two units for the IBG reported a significant difference associated with a positive increase in student satisfaction ratings (i.e., Professional Learning and Economic Principles) compared to the TMG. These variances in student satisfaction within units, for the inaugural year of the FYM and BM, were not identifiable within the SESR student satisfaction findings for the IBG at the group level. However, the findings are consistent with previous research. The empirical investigation of BM on student satisfaction by Loton et al. (2020) also found variances in student satisfaction during the first year of the FYM and BM, as evidenced by an increase in five of six teaching satisfaction indicators and a decrease in four of six unit satisfaction indicators. This study reported that “in terms of teaching, block students were more satisfied overall” (Loton et al., 2020, p. 16). Consistent with Study 1, declines in student satisfaction were also reported in overall unit quality. In Study 1, the SEU survey item that evaluated student experiences of

workload in a unit as being reasonable was identified as the indicator with the largest decrease in student satisfaction ratings. Previous research detailed that this decrease was connected to intensive mode learning demanding a higher workload than traditional mode (Male et al., 2016).

Beyond the inaugural year of the FYM and BM, SEUR results revealed a set of variable patterns of student satisfaction. Five of the twelve units demonstrated continual improvement in the SEUR mean scores from the TMG to the IBG, and from the IBG to the SBG (i.e., Economic Principles, Human Physiology, Legal System, Indigenous Health, and Professional Studies). This result over sequential years of the FYM and BM implementation also indicated that only the Health and Biomedicine academic discipline continually improved student satisfaction for both units every year after the transition from the traditional mode. Furthermore, results revealed that five units (i.e., Information Systems, Structural Kinesiology, Programming, Communication Management, and Legal Research) had a decline in SEUR student satisfaction mean scores in the second year of the FYM and BM implementation (SBG), when compared to the TMG. Three units consistently reported declining SEU student satisfaction rates for the FYM and BM each year for both the IBG and SBG compared to the TMG. These units were Information Systems (Business discipline), Structural Kinesiology (Sports discipline) and Communication Management (Engineering discipline). This set of results revealed that there was no commonality between continued declining student satisfaction rates, units, and academic disciplines, and that other factors must be considered.

The student satisfaction variances in the SEUR findings reinforced what was evident from the literature; that student satisfaction is complex and influenced by several factors (Hornstein, 2017). Those factors include individual student factors, teacher/faculty

factors, and institutional factors that can require congruency to positively influence student satisfaction of teaching quality (Schertzer & Schertzer, 2004). A potential factor to explain the variances in student satisfaction observed in the SEUR findings for the IBG and the SBG in comparison to the TMG, could be associated with the initial year of implementation for the FYM and BM. Specifically, the capacity for consistency in delivery efficacy across the University's academic disciplines regarding BM unit design, teaching, and assessment.

Block teaching has been acknowledged as a challenge in its initial implementation because of the curriculum reform and delivery mode changes required for teaching. In their study of faculty attitudes to block teaching, Burton and Nesbit (2002) found that it is challenging for new teachers and courses because there is limited capacity to adjust learning and teaching materials for students once intensive delivery has commenced. A study conducted by Oraison et al. (2020) explored the staff experiences of the University's FYC teachers during the first two implementation years and found that teachers faced challenges while teaching the IBG and SBG cohorts. These challenges included increased workload, faster timelines for student assessment and results in each four-week block unit, the mastery required for new digital technologies to support blended learning design, and the development of engaging learning and teaching materials for three-hour workshops. It could be expected that the reorganisation of the practices of teaching staff, requiring substantial engagement in professional development activities, could have had varying degrees of impact on the quality of unit delivery. This in turn may have influenced student evaluations of their satisfaction with the overall quality of a unit.

A UK university study by Shevlin et al. (2000) investigated the validity of student satisfaction ratings for the evaluation of teaching. The study found issues with how

students approach evaluations and the challenges of interpreting ratings. A key finding of the study detailed that evaluation ratings are influenced by the personal views that students have of their teacher, which includes a teacher's interpersonal skills as well as their teaching ability. This limitation may have affected the results of the current study.

Grimes et al. (2017) suggest the need for a more detailed and extensive investigation into questionnaire-based student surveys as an appropriate method for evaluating the student experience as a result of their study's validation that student impact bias exists and can influence student evaluations. Impact bias is defined as the inclination that students may have to overrate or misjudge the "intensity and duration of their emotional reactions to future and past events" (Grimes et al., 2017, p. 945). This finding is important in the context of survey release timing for BM unit evaluations and how different students may perceive or interpret survey questions and respond at a certain point in time within a block unit (e.g., mid-point) when evaluation surveys are received and completed before the completion of a unit.

BM education may have further complexity for student satisfaction. Specifically, all university and campus life experiences extending beyond the classroom, during a condensed four-week teaching period, could be considered by students more acutely in their evaluation of 'quality' for a unit (Elliott & Shin, 2002) and impact their response rating. Furthermore, student satisfaction surveys for BM are more frequently required to be undertaken by students (i.e., every four weeks), compared to traditional mode students (i.e., once every semester period). This frequency and the need for additional surveys at the conclusion of every unit compared to a semester may produce survey fatigue from the University's constant and more frequent surveys that students may perceive to provide them with no direct benefit from their unit feedback given they have completed their study in that unit (Mendes & Hammett, 2021).

In the context of this university, non-response bias may also have been a limitation affecting survey response rates (see Phase 2 Results: SEUR and SESR (Student Satisfaction) section) and the results of the current study. As found in Porter and Whitcomb's study (2005) on student survey participation, respondents are typically socially engaged and unlikely to be on financial assistance. This finding suggests that students from some equity group backgrounds in the current study may potentially be less likely to engage with student feedback processes.

An important observation is that the University studied in this research has not made any modification to the SEU survey instrument since implementing the FYM and BM, thereby providing a consistent survey instrument for use across all years of Study 1. Evaluating student satisfaction through surveys for the overall quality of a unit is complex, and it has been proposed that an alternative assessment of quality could be better determined through classroom observation (Hornstein, 2017). It has also been acknowledged that student learning should be the major measure of quality regardless of block or traditional mode delivery (Hornstein, 2017; Swenson, 2003).

### ***Influences of FYM and BM on Student Retention***

Overall, student retention rates showed no significant difference between the groups in the Study 1 sample. However, the analysis evidenced variances in student retention rates across different cohorts. In the first year of the FYM and BM implementation (IBG), the student retention rate decreased by 2.7pp from the TMG. As may have been the case for student satisfaction results, issues related to the first year of implementation of the FYM and BM may also have led to a higher rate of student attrition within the IBG. However, the student retention rate the following year improved marginally by 0.9pp for the SBG compared to the TMG. The SBG result also indicated that the University recovered from the student retention decline experienced during the first year

of FYM and BM implementation and improved the retention rate by 3.6pp from the IBG to the SBG.

Study 1 used the published HES data on student retention rates, utilising the “new normal retention rate” (Department of Education, 2023b), to compare rates at the entire first-year student population level. The new normal retention rate is the most comparable calculation to the criteria used in Study 1. The data reported a continual increase in student retention rates between all three groups, with retention increasing from 77.08% in 2017 (TMG) to 79.10% in 2018 (IBG) and again to 80.42% in 2019 (SBG). This finding indicated an improved retention rate for commencing bachelor students for each first-year student population within the FYM and BM groups, compared to the variances observed within the Study 1 group sample. It is also evident from the reported HES results that these improved University’s student retention rates, following the implementation of the FYM and BM, increased its institutional performance in the sector for the first time since 2017. The improved student retention rates also revealed that the University achieved retention rates closer to those comparable institutions in the state and nationally.

Many factors can affect favourable student retention for first-year undergraduate students. These factors can include curriculum design principles, student engagement and persistence, the effectiveness of identification and intervention programs for ‘at risk’ students, workload, and student mental health (Baik et al., 2015; Bowen et al., 2018; Kift, 2009; Kuh et al., 2008). Tinto (2017b) reported that institutional responses, such as the FYM and BM, are only one of the set of approaches to address the influences affecting student retention. While it is highlighted that rewarding curriculum that is of good quality and relevant is essential to motivate and engage students to promote learning and learner persistence (Tinto, 2017a), other approaches consider the

student lens and individual factors (e.g., perception of belonging, self-efficacy) to generate persistence in education.

Some researchers argue that students need to develop a good sense of self-efficacy during the first year because it can lead to learner persistence, which also improves student engagement and promotes a greater sense of belonging (Kahu, 2013; Tinto, 2017a). In one UK university's mixed method study, which investigated their block teaching model delivered with blended learning (Buck & Tyrrell, 2022), the potential of their new learning and teaching model to improve student retention was identified. That study's findings highlighted an increase in student engagement, social connection with peers, and opportunities to create learning communities, which are key factors for positive student retention. That study also found that the early signs of students having increased learner confidence and improved student academic success in the BM could have a substantial impact on the retention of students. These may have been factors in the Study 1 that contributed to the positive change in student retention for the SBG compared to the traditional mode group.

In Study 1, the student retention results were not consistently positive across all disciplines and cohorts. While the HES data showed that more students were retained each year from 2017 to 2019 (DESE, 2022), Study 1 found that this was not the case when student data sources from different perspectives were analysed across units and academic disciplines. Declines in student retention were evident across the three years in the Business, Sport, and Arts and Education disciplines. In contrast, the Engineering, Law, and Health disciplines all showed improved student retention from the TMG to the SBG. These variances within the sample demonstrated the multi-dimensional characteristics for measuring student retention across different academic disciplines and curricula.



Despite the small overall retention increase found for the SBG compared to the TMG, the discrete analysis of domestic student retention within this group revealed a much more positive result. Domestic students in the SBG showed an increased retention rate of 2.8pp when compared to the TMG. Therefore, the small overall retention rate increase of 0.9pp from the TMB to the SBG was impacted by the decline in retention rates for international students (2.9pp). This result highlighted the potential of other factors influencing student retention for international students beyond the educational reform. One of these factors in relation to the SBG is likely to have been the COVID-19 pandemic's effect on international students and their retention in study. The retention indicator for the SBG was analysed using enrolment records for the subsequent year of study (Semester 1, 2020) when COVID-19 cases and city lockdowns also first impacted Melbourne, Australia. It has been acknowledged within the Australian HE sector that the pandemic placed a hardship on this cohort and their retention in study. This occurred in many ways, including mobility challenges due to border closures, the risk of homelessness, mental health concerns and financial issues (Nguyen & Balakrishnan, 2020). The finding that student retention rates declined for international students from the TMG to the SBG was consistent with HES data reported for the entire population of overseas commencing bachelor students for the University (88.55% in 2017 declined to 86.91% in 2019) (DESE, 2022). A decline in student retention rates was also consistent with state and national data published for other HEIs. However, international students within the Study 1 sample demonstrated a decline in student retention rates before the pandemic hit, with the IBG reporting a 1.22pp decline compared to the TMG.

The Study 1 finding was inconsistent with the HES student retention data that reported an increase in the University's student retention for the entire international student population prior to the COVID-19 pandemic, from 88.55% for the TMG to

90.11% for the IBG (DESE, 2022). Potentially, retention rates for this cohort were unable to be recovered after the first year of FYM and BM implementation in the same way that rates were for domestic students, due to the timing of the pandemic crisis.

Study 1 found that the Business academic discipline had one of the highest percentage proportions (20.6%) of international students within the sample of data sources for academic disciplines sampled. The Business discipline also showed a continual decline in student retention rates. The pandemic and percentage of international students within the sample may explain the largest decline in student retention rates for Business (5.22pp) compared to the other academic disciplines. However, the decline in first-year student retention evidenced for the IBG (2.6pp) before the pandemic indicates multi-causal factors (e.g., the change required to transition to BM teaching, curriculum renewal, institutional changes) may have been attributable to the year-on-year decline in student retention for this academic discipline. In comparison, a higher number of international student data sources analysed within the sample were reported for the Health discipline compared to Business, yet improved student retention rates were demonstrated in Health.

Student retention rates for all equity groups improved from the TMG to the SBG in Study 1. This finding is consistent with an earlier research study of equity group students undertaking BM learning at the University. The study, by Jackson et al. (2022), found that the FYM and BM successfully improved equity group retention rates, and the positive result was due to a combination of factors within the classroom and at the institutional level. The study investigated additional equity groups to those in Study 1 (adding female in non-traditional areas and first in family). The study also focused only on students undertaking first-year subjects in science, technology, engineering, and mathematics (STEM). The Jackson et al. (2022) study revealed that the University's

overall improvements in student retention were also evident in first-year STEM subjects within the wider categories of equity group students. The qualitative aspect of the Jackson research highlighted factors associated with the institution, outside of learning and teaching, that helped to improve student retention rates and were not identifiable in Study 1. These factors included data-driven early-intervention retention programs and timely monitoring of student engagement indicators to withdraw non-engaged students prior to census dates. These institutional interventions and supports may also have been another key factor in the FYM and BM's influence on the first-year undergraduate student retention rates observed in Study 1.

In Study 1, decreased student retention rates were revealed from the TMG to the IBG for NESB, LSES and First Nations students. This finding is consistent with the findings for overall student retention rates. SWD were the only equity group to demonstrate an improved retention rate from the traditional mode to the initial year of the FYM and BM implementation. These unfavourable results for equity group students in the IBG challenge the theory that the “proportion of students passing first-year subjects is an important predictor of retention” (Jackson et al., 2022, p. 12), because these equity group students demonstrated improved academic success rates with no correlation to the increased retention rates.

## **Summary**

Study 1 reinforces existing research and indicates that the University's FYM and BM were effective in improving overall student academic success, student satisfaction and student retention by the second year of implementation. This effectiveness was evident in the consistent and favourable change in student academic success for all disciplines,

units and equity group cohorts. In addition, Study 1 findings show that, in the first year of implementation, student academic success and student satisfaction improved.

The Study 1 findings also revealed favourable and unfavourable variations in student retention during the first year of FYM and BM, with an overall decline reported in the first year compared to the previous traditional mode year. These findings revealed that there may be complexity to measuring and understanding the influences on retention for different equity groups and academic disciplines. Discipline or unit-specific characteristics, individual student characteristics and external factors (e.g., the COVID-19 pandemic) may have influenced the variances identified in student retention rates that were revealed beneath the overall population data. Students from equity group backgrounds can have distinctly different needs in their educational experience and environment to other students, and this was evident from the findings.

Chapter Five details Study 2 and the qualitative analysis of staff perspectives in relation to the FYM and BM, to address the research aims. The chapter details the qualitative research method, the data collection and analysis procedures, and presents and discusses the results of the qualitative analysis.

## **Chapter Five: Study 2 – Qualitative Analysis of Staff Perspectives and Experiences**

This chapter details the first qualitative study (Study 2) conducted to address the research aims through the perspectives of University staff. This chapter details the research method, participants, instrument, procedure, and data analysis used in Study 2 to address the research aims. This chapter then details the results of the analysis and discusses the Study 2 findings.

### **Method**

Study 2 was a qualitative research study positioned within the theoretical framework of phenomenology, which emphasises the importance of an individual's perspectives and attitudes within their situation (Cohen et al., 2011). Study 2 used qualitative data, collected from interviews with University staff, to investigate the research aims. The analyses of these data provided insights that extended the Study 1 quantitative findings and progressed examination of the research aims. The interviews gathered insights into the lived experience of the educational reform from a range of University staff (academic and professional) who were involved in the design, development, and implementation of these educational reforms. Study 2's grounded theory approach to data analysis (Cohen et al., 2011), is detailed in the data analysis section of this chapter. The findings were contrasted and interpreted with reference to the evidence, themes, and perspectives that emerged from the literature review.

### **Participants**

As an initial step, the researcher used their internal institutional knowledge (Hockey, 1993) to identify University staff who performed a significant role in the establishment and delivery of the FYM and BM and who would be able to share their perceptions of student academic success, student satisfaction, and student retention. The next step was

to identify appropriate staff to interview. In this regard, the researcher undertook peer consultation (Berger, 2015) with their supervisors and with the Dean of the University's FYC. Following the development of a list of recommended staff, the researcher met with their research supervisors on several occasions to review and refine the list to achieve a minimum number of study participants (i.e., 15). These review discussions considered the quality of data that each participant could provide to the study, based on collective internal knowledge. This process identified 24 staff for interview recruitment. The list of staff included academic and professional staff whose experience at the University included pre and post FYM and BM, to seek their experiences and insights into the educational reform and changes. Professional staff were considered as participants for the research, in addition to academic staff, because they are considered to be key supports for the student experience in collaboration with academic staff, and often perform what has been described as invisible and quasi-academic work in Australian HE (Szekeres, 2011).

An Expression of Interest (EOI) email (see Appendix N) was sent to University staff inviting them to participate in an interview. The PIS was provided to staff (see Appendix G) with the email invitation, as detailed in Chapter Three. Two follow-up reminder emails were sent to staff who did not respond to the initial recruitment email. At the conclusion of the recruitment campaign, 16 staff expressed their interest in participating (a 67% response rate), and an interview was conducted with each participant. A pseudonym was applied for each participant for the purposes of confidentiality (NHMRC, 2007), as illustrated in Table 31 below.

**Table 31***Participant Profiles (Staff Interviews)*

Participant Pseudonym	University role	Area of Expertise
STF_01	Senior Leader	Student Academic Support
STF_02	Academic	FYC (Business)
STF_03	Academic and Senior Leader	FYC (Sport)
STF_04	Academic	DBC (Sport)
STF_05	Academic	DBC (Health)
STF_06	Academic	DBC (Law)
STF_07	Academic and Senior Leader	FYC (Arts and Ed)
STF_08	Academic and Senior Leader	FYC (Engineering)
STF_09	Librarian	Library Services
STF_10	Academic	DBC (Arts and Ed)
STF_11	Academic	DBC (Arts and Ed)
STF_12	Senior Leader	Learning Design
STF_13	Academic	FYC (Arts and Ed)
STF_14	Academic	DBC (Engineering)
STF_15	Academic	FYC (Law)
STF_16	Academic	FYC (Engineering)

**Instrument**

A staff interview guide was developed to explore a framework of themes and the research aims (see Appendix O). The 13 open-ended interview questions in the guide were prepared in advance using everyday language, to help facilitate engagement, build

rapport, and generate in-depth information about the research participants' perceptions, experiences, and knowledge relevant to the research query (Patton, 1999). The staff interview guide contained questions designed to explore their knowledge and pedagogical approaches in relation to student outcomes, both pre and post the FYM and BM. Participants were also asked to describe the advantages and disadvantages of the change to the learning and teaching model. The questions explored participant insights from their lived professional experiences at the University working within both the FYM and BM and the traditional mode of learning and teaching.

### **Procedure**

Semi-structured, in-depth interviews explored the research aims with staff participants. Semi-structured interviews are a data collection method widely used in qualitative research offering flexibility to explore a topic, emergent theme or an issue more deeply (Cohen et al., 2011; Choy, 2014). In-depth interviewing techniques in this study explored each participant's experiences and personal knowledge. This method was appropriate for this study to collect data from the individual participant's consciousness that "gives access to the most complicated social and educational issues, because social and educational issues are abstractions based on the concrete experience of people" (Seidman, 2006, p. 7).

Standardised, open-ended interviews with staff participants asked questions in the same order to increase the comparability of responses (Cohen et al., 2011). New ideas and topics raised by the participants were discussed during the interview in addition to the staff interview guide questions via a semi-structured interview approach. This interview approach, conducted face-to-face, provided participants with an interview environment that built rapport so they could openly discuss their expertise and



knowledge (Denscombe, 2007) to capture their rich perspectives and experiences. In addition, the researcher approached each interview with an interest in the individual stories of the participants to gain an understanding of their lived experiences (Karnieli-Miller et al., 2009) and “the meaning they make of that experience” (Seidman, 2006, p. 9).

The researcher always remained aware of any perceived power relationship during the interviews and aimed to create a welcoming environment (Karnieli-Miller et al., 2009). Creating a welcoming environment assisted with effective data collection as participants could “open up about their feelings” (Taylor et al., 2015, p. 63) and discuss their individual experiences and perspectives. At times during the semi-structured interviews, the researcher made appropriate ethical decisions on the extent to which inside knowledge was used to discuss further, or question, a participant’s description of a topic (Floyd & Arthur, 2012), or where such knowledge may have been conflicting with a participant’s views (Floyd & Arthur, 2012). Due to the researcher’s self-awareness of being perceived as an insider researcher during the staff and student interviews, the researcher reassured participants that the interview would remain strictly confidential and the data would be de-identified. This reinforcement of Study 2’s ethical rigour minimised participants’ concerns and was done with the inside researcher in mind to ensure that data quality and quantity could be provided to analyse the research aims (Karnieli-Miller et al., 2009).

Interviews had a one-hour duration and were conducted using the researcher’s secure Zoom virtual conferencing software (provided by the University). Only the audio files were recorded and used in the data collection. The Zoom software ensured there was no disruption to the research during 2020 and 2021 when government COVID-19 lockdown restrictions made in-person interviews impossible. Participants were invited

to turn on their video function to facilitate engagement in the discussion, albeit they were assured that there would be no video recording of the interview. The audio recording function was used to document the interview discussion and facilitate transcription and data analysis (Kvale, 2007). Study 2 interviews generated over 13 hours of interview recordings, resulting in 229 pages of transcripts.

The Study 2 staff interviews were conducted prior to the Study 3 student interviews for two reasons. First, interviews with staff were prioritised because the COVID-19 pandemic led to organisational changes at the time and these changes affected staff availability. Second, the results of, and insights gained from, interviewing staff first provided the researcher with an opportunity to review and enhance the student interview guide (Seidman, 2006).

## **Data Analysis**

To reduce and inductively analyse (Patton, 1999) the research findings, the researcher adopted Seidman's (2006) recommended techniques and processes for educational researchers using qualitative interview methods. A grounded theory approach to qualitative data analysis was adopted as a general method to conduct a comparative analysis, presenting themes that evolved from the interview studies and the transcripts to focus the discussion findings (Seidman, 2006). At the conclusion of the interviews, the audio recordings for each participant were transcribed verbatim. NVivo qualitative data analysis software was then used to undertake a thematic analysis of the transcriptions. This analysis involved the identification and development of key themes and findings that addressed the research aims. The data analysis process (outlined below) provided rich insights gained from an understanding of the participants' experiences and perspectives (Charmaz, 2006).

Over three phases, large amounts of data collected from the interview transcriptions were reduced inductively with an open attitude to pursue what emerged as important and interesting from the text (Seidman, 2006). The first phase of analysis coded the data by marking meaningful passages and extracting the passages into a single transcript, using labels to identify and group the most compelling categories and sub-categories. The constant comparative method (Glaser & Strauss, 1999) was then used to determine analytical distinctions and make comparisons at each level of analysis (Charmaz, 2006). This method was continued into the second phase of the analysis to see themes emerge and develop from having made sense of observations in new and analytical ways (Charmaz, 2006). Finally, higher-order themes emerged and were developed through a process of analysing common connections and significant variances, among participant responses.

To ensure the rigour of the qualitative data analysis, the design, themes, and findings were checked several times with the research supervisors using an inter-rater reliability assessment (Armstrong et al., 1997; Bhattacharjee, 2012). The researcher developed a draft set of basic themes and codes based upon their analysis of the interview transcripts and their lived experience of conducting the interviews. The researcher then provided both supervisors with four randomly selected and de-identified interview transcripts. Using Microsoft Word, the supervisors and the researcher independently colour-coded the transcripts using a draft set of themes and codes. They each made comments on core ideas and findings they observed in advance of a meeting to discuss. Several meetings were held to review the draft coding, discuss the differences and commonalities between each person and reach a consensus on a refined draft set of themes and codes. The researcher then continued to develop and refine the themes throughout the data analysis process and presented the final themes to the research supervisors.

## **Results**

The purpose of Study 2 was to explore the research aims utilising qualitative data collected and analysed from interviews with 16 participants who were staff employed at the University. The data analysis resulted in four key themes: (1) staff perceptions and descriptions of student success; (2) pedagogical changes that influenced first-year student success; (3) student-centred approach to first-year education and; (4) opportunities to enhance student success. These four themes contain 13 sub-themes that detail the perspectives and experiences of the participants explored through qualitative interviews and they are reported in the sections below.

### ***Theme 1: Staff Perceptions and Descriptions of Student Success***

The participants expressed their perceptions and descriptions of student success, focused on the elements of student academic success, student satisfaction and student retention from within the research aims. The results evidenced that most participants described academic success and student satisfaction as complex. However, the participants did not use this description for student retention. In attempting to further describe the complexity, the participants' descriptions became clearer and more specific for each context. Most participants described student support as the key factor that enables student retention, and student support was found to be congruent with key factors for student satisfaction leading to overall student success.

#### **Student Success as Academic Success**

Eleven participants highlighted the complexity of academic success. This was demonstrated by STF\_02 when they stated, "It's not as simple as it might seem. It's quite a complex concept in a lot of ways." Five participants defined the complexity as being related to individual student factors, measures, and expectations. STF\_07

described this when they stated that “academic success means different things to different students and different things to different students at different times in their careers.”

Ten participants described academic success as academic achievement, and associated this term with the measure of “passing units” (STF\_02) and achieving “good marks” (STF\_07). STF\_14 gave a pragmatic description when they stated, “Academic success is generally measured by the way in which we grade and the way in which we assess and how students do according to those assessments.”

Nine participants responded that academic success meant outcomes for students beyond the classroom. Eight participants described these outcomes as including first-year students achieving personal “connection, growth and development” (STF\_11) and developing interpersonal skills such as confidence and communication. STF\_11 explained that “growth means growth in both academic skills, but also in personal development, emotional intelligence, empathy, awareness.” Four participants referred to outcomes for students beyond the classroom such as becoming successful university graduates in their careers. For example, STF\_01 commented that “academic success to me is really the future of getting into a career you want”, and STF\_05 defined academic success beyond the classroom as students being able to have the “confidence to communicate their knowledge” in a professional workplace setting.

Two participants offered a different perspective, defining student academic success as acquiring new knowledge and understanding. One of those participants, STF\_08, described academic success as “a new skill or new knowledge, or new way of doing things, or your understanding.”

## **Student Success as Student Satisfaction**

Ten participants described the contributors to student satisfaction that lead to student success as being complex. This was evidenced by STF\_11, who stated, “again, very complex”, and STF\_14, who explained that “there’s a variety of things that contribute to student satisfaction. I mean, where do I start?” Participants clarified their perception of this complexity when they indicated that it was due to different individual student factors and expectations. In this regard, STF\_06 stated that student satisfaction “means a lot of different things to lots of different people and lots of different students”, and STF\_11 reflected that “it’s a tough one because different students will be satisfied by different things.” Staff also responded that this complexity was due to different institutional factors, with STF\_12 explaining that some of these factors include the “support they [students] receive academically and throughout their studies ... the quality of teaching, their resources, the physical spaces.”

Seven participants described positive contributors to student satisfaction that leads to student success. These contributors were good student support and students being listened to within the context of how the whole university contributes to supporting students both inside and outside the classroom. STF\_02 exemplified this perspective stating that “student perceptions of their academic environment is also shaped by the University as a whole ... we can improve the student satisfaction in terms of their whole experience of the University.” STF\_06 specifically commented on the importance of listening to students by stating:

The things that really annoy students and I think upset them is when they feel that they haven’t been listened to, they haven’t had an opportunity to speak or to articulate concerns or that they feel that someone has not treated them in an appropriate manner.

A few participants commented that student satisfaction might be distorted when students evaluate their satisfaction at a point in time (e.g., completion of a unit).

STF\_10 described this issue:

We need to be very careful at that completions point because I do believe very strongly that that learning journey is valuable for all and that at a future point they might look back and say, ‘yes, that was a positive experience, but I understand why there are negative experiences’ ... that have skewed their overall experience at that point in time.

Only one participant commented that student satisfaction was associated with the University delivering on its initial commitment to students before they commenced study when they stated “I think that it’s delivering on that promise” (STF\_04).

### **Student Success as Student Retention**

Participants described key factors for student retention that support student success. Twelve participants reported ‘student support’ as a key factor for student retention, and seven participants commented on ‘university support’. STF\_08 exemplified these comments on a supportive university environment: “the most important thing is to place a student into an environment where they feel supported.” STF\_02 also commented on the need for a proactive support environment: “we can support their success and be there to communicate with them ... we can intervene and help support them.”

Four participants acknowledged that the FYC’s transition support was a key enabler for student retention. In this regard, STF\_02 commented:

We do a really big job in the First Year College across all of the discipline areas to help support the skills acquisition, the enculturation if you like, within the university context, and preparing them through that transition. I think that’s

going to help a lot with retention because we do support students. Because we do demonstrate to them that the university isn't beyond them.

Eleven participants highlighted a sense of belonging as a key factor in supporting student retention. A sense of belonging was frequently represented as the relationship that students establish with staff and peers that supports their retention in study. This key factor was exemplified by STF\_11, who commented "I think they stay when they have strong relationships, and they have strong relationships with their peers, strong relationships with their teachers, and they feel that they're a valued part of the community." STF\_05 conveyed the importance of a student's relationship with their teacher in fostering a sense of belonging:

They like to identify with the person who is in the classroom. A lot like to feel comfortable in that scenario ... students need to be able to engage and understand, they need to engage with staff and have a clear identity of who that person is.

Only one participant commented that the early identification of financial and academic challenges for students is a key factor that supports retention in their studies. STF\_10 stated that "students who are successful are students whose challenges we can identify, we can address at an early point so we can almost anticipate ... how can we support those students to stay in our courses and to graduate."

### **Summary**

The outcomes of the data analyses reported for this theme revealed how staff at the University perceive and describe student success. The results provided an important framework for how student success is defined from the perspectives and experiences of staff in the context of this University's student cohort. This framework informs and



further contextualises the results detailed in the following key themes related to the educational reform.

### ***Theme 2: Pedagogical Changes that Influenced Student Success***

This theme evidenced how first-year student success was positively influenced through pedagogical changes introduced by the educational reform. These results highlight some of the challenges this educational reform presented for student success. Overall, it was found that the establishment of the FYC was central to the efficacy of this change to first-year education that consolidated teaching for all first-year students, from all academic disciplines, to support their transition to the intensive BM format of learning and teaching.

#### **Combined Effect of a FYM and BM**

Participants communicated that the implementation of the FYM and BM had a combined effect that influenced first-year student success. Participants described the FYM as distinct from the BM, which was represented in the response given by STF\_03 as “the First Year Model is interesting ... it’s not just block mode, we are doing other things to support the students; the units have been developed in a different way.” Another participant described the FYM as being “extremely broad ... like the Hydra with lots of heads” (STF\_08). This description was supported by 14 participants who discussed the inter-connectedness of the FYM, the FYC, and the BM that prompted the reform of first-year curriculum and teaching.

Ten participants expressed that the establishment of a FYC, to teach all commencing undergraduate first-year students across every discipline, was influential in the positive impact that the change to a FYM had on first-year student success, and was separate to BM delivery. STF\_07 highlighted in their response that BM was the “real circuit

breaker ... it forced the University as a whole, and initially through the first year and the First Year College, to say we are not going to make the same mistakes again.” The important positive impact of this change on first-year student success was described by STF\_08: “the First Year Model, which includes the First Year College, has transformed the opportunities and the success for first-year students. I think it has had probably the single biggest impact on first-year students.” STF\_08 also highlighted an intentional design aspect of this change: “The First Year College and the First Year Model set out to create a learning community, through the staff and within the students.” Five participants also felt that the FYC introduced first-year undergraduate transition pedagogy, embedded in the implementation of a FYM, and that this introduction was important in improving student success. STF\_03 stated that “the First Year Model has been very important because it is looking at all those transition pedagogies.” With respect to the outcome of introducing transition pedagogy for first-year students, STF\_02 explained that “the transition pedagogy we’ve implemented, that high engagement teaching strategies that focus on the student as an individual rather than just a number in a cohort, has really meant that we can do that personalised level of student support.”

Eleven participants described the reforms to the first-year curriculum and teaching as influential in the positive outcomes for student success overall. The curriculum review, which was undertaken simultaneously with the establishment of a FYC, was described by one participant as “the opportunity go back through the curriculum ... re-look at things that perhaps you had taught in a way for a couple of years, and actually thinking about doing it in a different way” (STF\_04). The focus to improve the first-year curriculum through a review was further highlighted by an academic participant who reported that the change to BM design and delivery had forced “all units under a

microscope of sorts to make sure that those things are done better” (STF\_05). STF\_07 commented further on the reform of first-year undergraduate teaching practice, explaining that:

We have given ourselves permission to do the unthinkable in a way which is to completely change the way we teach and we've also taken on the responsibility of working really, really, really hard to try and make sure it succeeds, and it's come up.

Five participants also reported that the change from traditional mode to BM delivery was a key factor in the positive change for first-year student success. Highlighting how important the change from traditional mode to BM was for student success, STF\_14 reported that “it’s such a more effective way of teaching ... as opposed to considering yourself as the fountain of knowledge who is transmitting information.” The change to “small class sizes and active learning” (STF\_12) was also associated with the change to BM delivery. One academic participant explained that, despite their initial hesitancy about this change in teaching mode, their experiences since have convinced them of its effectiveness:

When it was brought on initially, I didn’t understand how it could be effective ... I think overall, the teaching is going in-depth in something, and you’re actually allowing students to learn; you’re not showing them the content. You’re equipping them with the confidence and the skills to do that themselves, and again that ties back to that idea of students taking responsibility for their learning. (STF\_10)

Eleven participants expressed the view that the change to FYM and the implementation of the change was a success for the whole University, with one participant stating that the change required “the whole university to say we’re in this whole thing together, we can remake this if we all pull together” (STF\_07). Another participant described the change to the FYM as re-setting the University to be “game changers in the sector” (STF\_01), while a third participant offered their assessment of the significance of this change on the University and its people: “it really has turned the whole university around and I think we have now a common goal ... and we’re on the brink of something even better” (STF\_03).

Of the 11 participants with positive views on the FYM for the whole University, seven felt that the change was, as STF\_04 stated, “absolutely necessary ... we had to do something”. Participants offered these views in the context of the traditional mode of learning and teaching not being effective for the University’s student cohort. For example, STF\_10 stated that “it’s been so nice to do something rather than sit back and see the students drop off and just see the students not engage.” STF\_07 characterised the whole-of-institution change to promote first-year student success as an endeavour to “build a new way of working that genuinely pays attention to transitions and retention-focused issues rather than just tinkering around the edges.” One staff member acknowledged and emphasised the breadth and depth of the change required to implement the educational reform within the University, and that the experience of the change and the efficacies that the FYM and BM had created:

We’ve taken the risk; we’ve taken the gamble. What that’s meant though is that there’s a real sense of purpose around the university that I haven’t seen for a while. And that sense of purpose is all pervading, it’s not just all the academic

staff with a sense of purpose, but the admin staff are just to support us. No, we're all in it together. (STF\_02)

Fifteen participants commented that the outcome of the FYM implementation was the catalyst that improved staff morale and culture, creating a “much more united organisation than we used to be. ... there's a much stronger sense of shared purpose than there used to be. ... and that's something very positive” (STF\_02). One academic participant commented on their lived experience of this uplift to morale and culture in the FYC, when they stated that “we've created an atmosphere in the First Year College similar to the atmosphere we want to create in our classrooms. We want the people in the First Year College to know that they belong” (STF\_07). A comparison to the way staff worked together in the traditional mode was also made by STF\_08, who highlighted that they had “never seen the whole university come together over anything in the way they came together over that First Year College and Model in that first year in 2018.”

One professional staff participant also reported that, compared to the ways of working in the University's traditional mode, the change to implement the educational reform made them feel they were “being treated as a professional” (STF\_09) and with many professional staff having postgraduate qualifications this participant reported that “we've been employed for our expertise, so it's good that it's actually been used by the university in the context of the Block and having that recognised” (STF\_09).

Twelve participants mentioned the rapid and large-scale implementation program required for the FYM, which included BM design and development, that influenced student success. The descriptions of their experience were represented by STF\_12, who stated they were under “time pressure ... everything was happening really, really

quickly, and it's still feeling like that. You feel like you're behind. You feel like there's a lot more you need to do." The driver of the change to implement a FYM and BM learning and teaching was described by two participants as being attributed to the "university being in a very challenging situation, and they needed to act quickly and act decisively" (STF\_11), and that the change was "driven by necessity. ... if we weren't ... financially stricken, I don't know whether we would have done this or not" (STF\_7).

One participant added that "it has been so disruptive ... we needed to do something different, we really did. If we'd have kept on doing with what we done five years ago, I don't think we'd all be here now" (STF\_2). Responses from these participants highlighted that staff had to "adapt really quickly" (STF\_08), yet this adaptation was required of them while the FYM and BM were being implemented, when staff were still "grappling with the idea that it was a good idea, but I was needing to make changes and had to convince staff to get on board with the process" (STF\_5).

Seven participants highlighted the challenges that staff faced in adapting quickly when they described there was "resistance to that change" (STF\_04), that they "didn't know it was a good idea" (STF\_5) and that "the idea of a First Year College ... was an incredible risk ... an incredible leap into the unknown" (STF\_7). At the time of the change, one participant recalled that they considered the idea for a FYC to be "ill-conceived" (STF\_11).

### **A Focused and Active Approach to Learning**

Eleven participants reported that the BM change to student learning, to focus on one unit at a time, contributed positively to student success because students were not "distracted by other things" (STF\_02). STF\_04 exemplified this contribution when they stated "that pressure of not having to do multiple units and actually focus, is a lot of the

feedback we hear from students as to why, and I do think, it is a big contributing factor to the academic success of students.” STF\_03 characterised the benefit of the change: “being able to concentrate on one unit at a time and not have those competing assessments and deadlines is critical ... they really can fully immerse themselves.” Improvements to student academic success, through studying one single unit at a time, were attributed to “the mode of teaching, the lessening of cognitive load over four different subjects” (STF\_09) and the participants reported that, “we see an improvement in grades” (STF\_14) and “there’s been an improvement in academic outcomes and we’ve seen the statistics for that” (STF\_10). In contrast, four participants discussed the challenges for student academic success associated with the intensity of the four-week block scheduling required to teach one unit at a time. STF\_11 highlighted this challenge for both staff and students, stating that “students have been coming to terms with the tight time frames and with the fact that they need to keep up with work ... the tight time periods, the limitations on the quantity and quality of learning within the block have created challenges for both staff and for students.”

Nine participants commented that students were more satisfied because they had achieved academic success, as exemplified by STF\_04, who stated, “I think success and satisfaction go hand in hand ... I think they would be more satisfied because they’re achieving more success.” One participant (STF\_14) responded that improved student academic success from the focused and active approach to learning was also associated with student retention: “we have seen improvements in retention, and I think that also correlates with pass rates as well. I think student success breeds student retention ... those are clearly related things.” However, this view was not consistent among all the academic staff participants interviewed.

Two participants discussed that they had observed student retention as an issue since the FYM and BM were introduced, with the educational reform having “helped some areas more than what it’s helped others” (STF\_04). One participant commented on the negative impact of the change on student retention: “figures, particularly in my area, aren’t that great, they’re still really high. I mean attrition is high” (STF\_10). Three participants commented that the efficacy of the FYM and BM on student academic success could have a detrimental effect on the University’s student retention rates due to student transfers to other institutions after their first year of study. One participant made this observation with respect to their academic discipline area, commenting that “from having experience in selection, I know that we have the highest percentage of students that start with us, that finish somewhere else” (STF\_04). Another participant reported that students can use the “foundation year as a gateway to other courses when they’re undertaking generalist courses” (STF\_10). Another participant concurred with this concern, commenting that “sometimes students can’t get into a course at another university and will use this university as a stepping stone” (STF\_14), transferring once they achieve first-year academic success in the FYM and BM.

Nine participants also responded that active learning in small classes was another aspect of the intensive BM delivery that influenced first-year student success. STF\_07 highlighted that the FYM and BM “end goal was ... to create engaging and active classrooms” that supported the academic success of student learning. The positive influence of this change to learning and teaching on student success was commented on by STF\_10 who reflected on their own lived experience as a teacher and observations of students:

They definitely are a lot more cohesive as groups and more proactive in interrogating the learning that they’re doing in their assessment task ... I think



that is an important academic skill that they've developed through the intensive mode of study that I haven't seen in the past, so it's a fairly new development.

Participants also associated active learning in small classes with improved student satisfaction. STF\_14 highlighted the comparison of the new BM small class size of "35 students" (STF\_05) with the previous traditional mode lecture format:

they feel like they're being heard. When you're in a lecture of 100 students or 150 students, you can often feel like you're not heard. That's almost impossible in block mode and moving away from a lecture tutorial type of model to a more blended, interactive workshop-based model, hands on.

Four participants also discussed how small classes influenced positive student retention rates by creating a more supportive learning environment for students by "making a space where students feel safe, where they feel they belong and where they feel they can succeed" (STF\_07). Two participants associated the supportive learning environment enabled by small classes with enhanced peer and teacher relationships to foster improved student retention. STF\_08 exemplified this association when they commented on "all the things that we put in place, to the students working with the same group three days a week so that they got to know themselves and each other, where we had one academic with them for the entire time." One participant who teaches five units a year further commented on the benefits of student-teacher relationships and truly knowing each other, fostered by active small classes. They responded that these factors helped to "bridge a lot of those transition issues. ... that they have that sense of belonging, that someone cares about them from the very start. ... that has a massive influence on how students succeed or don't in the first year" (STF\_07).

One academic staff participant shared their perspective on a secondary school student who transitioned to the University to learn in the FYM and BM and had since left the University. STF\_02 reported that the student was “uncomfortable with it, didn’t like the small group environment . . . and thought that we were doing something that was too close to high school for them.”

### **Changed Assessment Approaches to Support BM Delivery**

Nine participants responded that changed assessment approaches, required to support BM delivery, positively impacted student success. Participants commented that the change from traditional mode to BM also meant that assessment approaches were redesigned. STF\_04 explained that this change to assessment “helped pull us out of the traditional ways we were set in, and the over importance that were placed on things like exams.” Regarding changing the assessment approach for BM compared to the traditional mode, one participant described their experience as being “really encouraged to break the assessment up into very small assessment pieces” (STF\_13). Another participant recalled that “because there was a tight four-week period, assessments tended to be minimised, and therefore the learning – it struggled to be as substantial as it might otherwise be” (STF\_11).

Student assessment was also changed to one at a time, which was aligned with teaching students in a four-week block for one unit at a time. Participants described this change to assessment as creating “an achievable set of assessments” (STF\_13) for students, with “genuine opportunities for students to actually scaffold their learning with their assessments each week” (STF\_01). One participant also highlighted that more prompt support indicators became visible to both student and teacher in the change to BM, and commented that the delivery mode gave “knowledge back to the teaching staff

if someone is struggling and how can you actually help them rather than waiting, like in traditional mode ... until week four for the first assessment” (STF\_09). Four participants commented on the early and regular feedback that students received to build their learner confidence (compared to the traditional mode), as represented by STF\_11, who commented that students “get a result at the end of every four weeks, which gives them a very clear indication of how they’re tracking in terms of their progress and their learning ... that’s reassuring... that gives a feeling of confidence.” Participants felt that building learner confidence through regular assessment feedback was “linked to motivation” (STF\_04), and that gaining confidence “leads back to student satisfaction” (STF\_08). Regarding the benefits to student satisfaction and success arising from the provision of regular feedback on one assessment at a time, STF\_01 explained that students “get feedback on their assessment before the end of the block ... for each assessment... which they can then use”, and STF\_12 commented that when students “get the results for that unit within three or four days, students are really, really satisfied.”

Six participants also commented that students frequently achieving academic success in their units due to regular teacher engagement and feedback on their assessments, in turn, aided their retention in study. This impact was highlighted by STF\_03, who commented that “the success that they get, the feedback that they get, the belonging that they have, that’s why they’re staying.”

Only one participant expressed challenges associated with the changes made to assessment approaches for BM delivery. STF\_11 commented on the challenging aspects of assessment for students undertaking intensive mode delivery when they responded that students need to “come to terms with the fact that they need to keep up with work,

and if they're struggling with late assessments or leaving things until the last minute, that things can very, very quickly creep up on them.”

### **Summary**

The results reported in this theme identified key aspects of the pedagogical changes associated with the FYM and BM that influenced student success, in comparison with the traditional mode. These key aspects included the FYM and the reform of learning and teaching to deliver BM that led to improved student success that included active and focused approaches to both learning and assessment required to an intensive mode of delivery. Specific, student-centred approaches that further influenced first-year student success are detailed in the next key theme.

### ***Theme 3: Student-Centred Approaches to First-Year Education***

The results of the data analysis showed that the University engaged in a deliberate focus on student-centred approaches to first-year education. These approaches were utilised in the curriculum reform, the enhanced adoption of learning and teaching technologies, and the approach taken to build an improved sense of belonging for first-year students, including those from equity group backgrounds.

#### **Focus on Placing Students First**

Ten participants indicated that the FYM and BM improved the first-year undergraduate student experience, because these changes required staff to “put the student first” (STF\_08). STF\_14 also commented that the FYM and BM changes were “evidence-based and student-centred ... and we are really focused on making the student experience the forefront.” One participant further highlighted that the “implementation of the block model necessitated us to really think deeply and carefully about what it is we wanted to achieve with our students” (STF\_11). The positive impact

on the student experience and on student success across the entire first-year population was represented within the interview of STF\_12, when they stated that “because of the scale, you can look at those results and see the pass rates increase, the distinctions, high distinctions, see the benefits for the equity groups ... it’s phenomenal.” STF\_10 described the positive student outcomes as resulting from the student-centred approach to rebuilding the FYE and the learning and teaching:

I have really appreciated all that I’ve learnt; I’ve appreciated the work that I’ve been able to do in terms of professional development around the curriculum and adapting it and really thinking about the student experience to ensure that what we’re doing is meeting that student experience ... also looking at that technology-enhanced tools that we use.

The introduction of enhanced technologies for learning and teaching was further discussed by participants and is reported in the next section.

### **Enhanced Learning and Teaching Technologies**

Six participants acknowledged the importance of enhanced digital learning and teaching technologies that were introduced with the implementation of the FYM and BM, leading to an improved student experience compared to the traditional mode. These participants commented on the innovation created by the enhanced technologies and described the change as “a real challenge and it’s been a lot of hard work but it’s been really exciting to think that we’re actually innovating the way that we’re delivering our courses and programs” (STF\_10). One participant specifically commented on the introduction of new digital learning technologies as part of the change to BM and described it as being “a really big thing that the Block forced our hand in as well ... staff having to think about engagement in a different way, and engagement not being

you being the entertainer” (STF\_04). This participant further described that the changed way of learning and teaching through enhanced technologies was a key factor in improving student engagement:

I think that has been a really big change, and a good change, in terms of the students, but also in terms of upskilling the staff. Staff now are learning how to engage in a different way but use technology in a different way as well.

STF\_03 noted that while technology can be “a tool, it can also be a barrier for some students depending on their background, whether or not they’ve had access to those sorts of things in schools.” Five participants highlighted the challenges for staff to learn new technologies, as specifically reported on by STF\_12, who stated that “all of our staff had to up-skill because of the Block Model”, and STF\_13, who stated that, compared to the traditional mode, systems like the Learning Management System (LMS) became an “essential thing, and ten years ago it was an optional thing”.

One participant commented that a few teaching staff were not “open to trying new things” (STF\_12). Another participant commented that there had been some “technological utopianism in the beginning ... where the LMS could solve all of our problems rather than interacting with the students ... so getting that balance right is actually really important” (STF\_13). Two participants commented on the positive influence on student academic success when they stated, “technology-enhanced systems that support our teaching that have enabled us on an academic level to pick up issues more quickly” (STF\_10), and that students can find what they need and “there’s no confusion” (STF\_3).

Six participants highlighted that the BM resulted in the seamless “transition to remote learning” (STF\_03), from “face-to-face” (STF\_06) delivery, when the COVID-

19 pandemic first disrupted the University's learning and teaching. This theme was highlighted by STF\_12, who commented on:

The academics, the way that they pivoted to teach online at a university that traditionally didn't have a very big online presence at all was phenomenal, and I think in a lot of ways it's due to the First Year Model and the Block Mode, because as a university, we know we can do change. We know we can try things, do things differently, that we haven't done before, and succeed.

At the start of the pandemic, the student experience of this abrupt change to remote learning was reported by STF\_14 as being "a mixed experience during COVID-19 ... a lot of them were very vocal in their thanks ... a couple wrote to me and said they were worried about their subject."

### **Improved Sense of Belonging for Students**

Twelve participants reported an improved sense of belonging for first-year students as a result of the change to the FYM and BM, which was considered influential on improved student success outcomes. The improved sense of belonging for students was highlighted by STF\_07: "the fact that they have that sense of belonging, that someone cares about them from the very start, I think that has a massive influence on how students succeed or don't in first year." A positive shift in the teacher and student relationship was reported by STF\_02, who commented that "it's made the most profound difference to my interaction with the students than any other change that I've experienced. And the most profound in a very positive way." Six participants expressed the view that the students' enhanced sense of belonging was also associated with improved student satisfaction due to improved relationships with teaching staff; "really knowing who their academic staff member is" (STF\_01). This association of

student/teacher relationships with student satisfaction was represented by STF\_12 when they responded that students:

absolutely love getting to know their teachers ... that personal relationship. ... the satisfaction about the relationships that they achieve with their teachers and also with their peers seems to have made a big difference and something that's a very common thread from the response from students.

One participant made a clear connection between the BM and improved student sense of belonging: "a lot of students really value the fact that they get to know you, and you get to know them, through this intimate teaching style" (STF\_07). Five participants also commented that a sense of belonging created by improved relationships with teaching staff was a key factor in improved student retention. STF\_02 commented that "it's largely because we are making those connections, and students do see that there's somebody to talk to who's there to help them rather than being anonymous within a big system." The influence on retention was reported as being due to students feeling that "they were in an environment that they belonged to ... they felt part of something and they could achieve things. In the First Year College, there's no gap between us, it's an entire community." Small classes were highlighted by one participant when they described the influence of relationship building on a sense of belonging and improved student retention: "they've got 33 hours where they're in a class with the same people ... an opportunity to create lasting friendships and an understanding of others, which I think is critical to a sense of belonging."

In contrast to the findings on improved student/teacher relationships, one professional staff participant who works with students outside the classroom commented on the negative influence of the BM on peer-to-peer student relationships. STF\_01 highlighted the challenge in the design of the BM to achieve a sense of



belonging, stating that, within each block, students have to “start over with a new group of students ... and a new teacher every four weeks.”

Only two participants made an association with an improved sense of belonging and student academic success in the FYM and BM. This association was represented by the comments from STF\_08, who stated that students had developed better academic skills due to improved “student confidence” and “student belonging.” The data also indicated that one participant reported a personal change in their own sense of belonging as a staff member with the student cohort when they stated that they felt they “really belong here because I’m first in family, I’ve got migrant and refugee parents, I’m married to a migrant ... I’m one of them” (STF\_03). This participant further related their own success as a staff member working on the University’s FYM and BM implementation, with the success of the students, when they commented that “it’s incredibly powerful work that we’re doing, and I think we’ve changed some student’s lives – we’ve really changed their lives.”

### **Equity Group Student Success**

Eleven participants reported that the FYM and BM improved student success for students from equity group backgrounds. Seven participants responded that enhanced teacher relationships with equity group students in the new first-year BM classroom environment, compared to the traditional mode, increased one-to-one engagement opportunities “with the staff to student ratio being able to provide a lot more personalised support to those students” (STF\_14). The improved student/teacher engagement was associated with learning in small classes in BM, which meant equity group students could “engage in a way that they previously perhaps didn’t have to in that lecture setting, and that’s been really beneficial” (STF\_12). Five participants

responded that, in the FYM and BM, a key factor for improving student support to enhance student success was giving students “a sense of belonging by knowing them and being there for them to talk to is certainly helpful for those groups” (STF\_07). One participant reported that, in the FYM and BM, there is “more peer work than you would see in a traditional lecture ... students work together and can support each other, and I think that plays a role to support those equity groups as well” (STF\_14). Participant data from this group indicated that the University’s student-centred focus and “approach of getting to know students” (STF\_07) benefitted students from equity group backgrounds. One participant expressed the view that the FYM and BM led to improved equity group student success due to students “also feeling accountable, because the teacher knows their name” (STF\_12).

Five participants acknowledged that the change to the FYM and BM had more “inclusive” (STF\_03) BM teaching practices due to the small classes that created a more inclusive learning environment for students from equity group backgrounds. This theme was represented by STF\_03 in their response, as follows:

they’re not a forgotten person in a lecture theatre of a hundred students ...  
they’re not turning up to tutorials with only three people in it, they’re in a classroom with thirty-odd people who are turning up every week. We’ve had amazing attendance, and the reason being that a lot of the work on assessments and things like that have been done in class.

STF\_03 further added that FYC staff are very “inclusive” and have undertaken professional development on teaching in small groups so that “some of those barriers have been broken down because everyone’s being treated the same”.

## **Summary**

The results reported in this theme affirmed that students were given a greater focus in the design and delivery of first-year undergraduate education. This change benefitted students from equity group backgrounds through more inclusive approaches to learning and teaching, and there were indications that the environment for staff was also enhanced. Central to the student-centred approaches that improved student success was the facilitation of an improved sense of belonging for students because of the opportunities to develop more engaging student/teacher relationships in the BM learning environment.

### ***Theme 4: University Practices to Further Enhance the BM for Student Success***

Results provided evidence of various opportunities to enhance student success in the BM. Particular focus was given to students with accessibility needs, and there was a greater emphasis on coherent BM course design for all years of study that extends beyond first-year units and students. While, in the previous theme, participants reported that student-centred approaches were adopted to improve first-year education, the results reported within this theme indicated that more needs to be done to listen to the experience of students and understand their lived experiences of the educational reform.

### **More Support for SWD**

Seven participants reported that students with accessibility needs are further challenged by BM delivery. This was represented by STF\_02, who stated that it is “one of the areas we could do a lot better in ... the Block does move quickly, and any lag time is a disadvantage to that student.” This issue was particularly evident from the participants’ responses that highlighted that the BM creates an environment for students that is a “high-pressure situation of having to get things done on short timelines, and

short deadlines, and is harder to deal with” (STF\_08). STF\_04 commented on the challenges of BM for students with accessibility needs:

more time to do things, and that can be challenging in the block because the one unit at a time then can spill over into other units ... and so you still try and keep them within the block ... but there’s less time to operationalise that help.

STF\_05 expressed their concern about this cohort of students “coping”, drawn from their observation of these students learning in BM:

when the assessments are coming, they come pretty quickly, and you’ve got to be on your toes to make sure you can keep up. And if there’s a keeping up element that is hard for them to deal with, I’m concerned about how those students are coping.

Three participants commented on the challenges for academic staff in knowing that students have a study “Access Plan” (STF\_02) to support their learning. The issues that impact teachers within BM to support the success of students with accessibility needs were reported as being due to the University process that stipulates “the student is supposed to tell you but don’t until it’s too late ... and then it’s too late, or very hard, to make an adjustment” (STF\_02). Another three participants also highlighted that the BM “can be intense” (STF\_08) and that this intensity impacts students who already have “high anxiety ... are on the autism spectrum or are dealing with mental health issues” (STF\_08). This issue was exemplified by STF\_11 when they described the challenges of BM delivery for students with mental health issues, in comparison to the traditional mode:

Students with mental health issues have really struggled with it, and the main reason is they find the strict time constraints really problematic. So, what tends

to happen is that a student will, because of a mental health issue, be unable to submit work or works within the timeframe, and they'll receive extensions and sometimes late results, and because of the nature of the sort of rapid cycle of block, they fall behind really quickly. That said, those same kinds of things used to happen with the old way as well. So, I just think that it probably gets exacerbated a little more with the four-week turnaround.

One participant described the impact of BM delivery on students with accessibility needs when they highlighted the repeated changing of peer groups and teachers for every four-week block as being “a very confronting type of experience to go through” (STF\_01) for students who need accessibility support. There was no evidence from the data that a solution had been found by the University to improve the issue reported by staff participants for this cohort of students with a diverse range of accessibility support needs. This finding was confirmed by STF\_08 when they reported, “we haven't quite worked out, in my opinion, the best way to manage certain cohorts in the disability area.”

### **Listening to Students for BM Continuous Improvement**

Nine participants responded that to further develop and enhance the BM it is “really important that the University listens to students” (STF\_11). STF\_01 exemplified this view when they commented that the University needs to be “really taking on board what students are actually saying, what they think about their experience – not what they think, but what they actually experience in the block.” The importance of the University gathering feedback on the lived experience students had in the BM was also represented in the interview with STF\_11, who stated that “I think student evaluations are important, but I think it needs to provide other genuine opportunities for students to

have their say, and even more importantly, I think it needs to actively act upon what students say.”

Four participants described that, by listening to students, the University can “offer things that really provide students with what they want, when they want” (STF\_08), and help students to “succeed by balancing all the other stuff that they’ve got going on” (STF\_12). Two participants specifically responded that, by listening to students and their experiences, the connectedness of the FYC and DBCs can be achieved because “there’s still a lot of work to do at the coalface of where the problems are ... the most common one is the squeezing 12 into 4 ... the students aren’t having a great experience” (STF\_14). Another participant commented that they “worry about us losing that connectivity within and between your levels in courses” (STF\_05).

### **Whole-of-Institution Approach to BM Course Design**

Thirteen participants acknowledged the limited interaction between the FYC and DBCs to design and deliver BM with a consistent and coherent whole-of-course approach. STF\_12 commented on the need to address this issue which they felt was due to “the divide, just because of them structurally being separate entities, that’s a known issue” (STF\_12) between the FYC and DBCs. All 13 participants felt that this divide was a key factor in enabling a “whole of university approach” (STF\_01) in future for an improved student experience of BM delivery through a “course review” (STF\_03) that ensures “coherent courses” (STF\_06) and addresses the “biggest issue that we have which is connectivity between units as you go across a course” (STF\_05). The reflection given by STF\_05 on the educational reform program the University undertook elucidated how the divide and course coherence issue may have evolved over the years of implementation:

we went down the road of the first-year block model initially as a one-off scenario. So I don't really think we paid much attention to the courses. When we started this work we focused on the first-year and the success and the retention for students in first-year. I really think what we need to do next is think about our courses and how they fit into an end-to-end design for block mode delivery. Because I think we've retrofitted courses to get them delivered in block mode, but that doesn't mean that they're good from a block mode delivery perspective.

STF\_01 expressed their sentiment that the University needs to "make sure that everybody's on the same page" due to the rapid "nine month" (STF\_12) implementation program for the FYM and BM, and eight participants concurred with this view. STF\_02 described this issue as an opportunity to "align our behaviours and our planning around what's strategically important for us as a university as a whole to be more successful, rather than competing with each other." STF\_03 commented that, when the DBCs were required to implement BM delivery, "they just didn't have the same opportunity that we had in the First Year College, to really do that intense multidisciplinary group work where all the staff worked together, they didn't get that." Furthermore, two participants commented on the reliance on sessional teachers as a potential issue affecting the consistency of BM teaching quality and delivery. STF\_16 commented on one aspect of this issue when they reported that the University needs to recruit teachers who are "on board with the block".

Five participants responded that, because the educational reform is a "work in progress" (STF\_01), the key influences and focus areas for enhancement may not be known for another "10 to 20 years ... before we're really able to sit back and reflect and say that's the impact we had" (STF\_08). This timeline and measurement of the full impact that educational reform has had on student success was represented by STF\_09,

who stated that they wanted students to ultimately “get employed”, “have good jobs” and “be confident in their workplaces.”

At the time of the Study 2 interviews, the BM was in the final year (2020) of implementation for all undergraduate courses and extending to all higher year levels. The implementation was considered using a project perspective at the University, with the aim to convert final year units in undergraduate courses to BM. This important point in time for staff to evaluate the efficacy of the educational reform was represented within the interview of STF\_08, who commented that “I don’t think we know what we’ve done yet or realised what we’ve done. And I don’t think we’ve really realised where we can go with this.”

### **Summary**

The results reported in this theme indicated the opportunities to review and improve BM learning and teaching from the experiences and perspectives of staff working at the University. Focal to these results is listening to student voices so that their lived experiences and feedback inform any review and future changes. The results also indicated that more coherent approaches to BM course design are required as undergraduate courses now extend across a FYC and the DBC. The key results and themes are interpreted and discussed as key findings in the next section.

### **Discussion**

The previous section presented the results of the Study 2 qualitative data collected through interviews with University staff and detailed the key themes identified from the data analysis. The following discussion presents the interpretation of the resultant data and considers contrasts with relevant literature and connections between the key themes and the research aims.



### *Student Success is Individual and Complex*

The findings indicated that staff consider there to be complexity in defining student academic success and the factors that contribute to student satisfaction. Staff expressed an underlying influence on why staff they consider there to be complexity, and this was reported as being due to individual student factors. This finding correlates with the literature that reports the success of first-year university students as being a complex idea, with the factors that matter for success as being considered differently by academics and students (Naylor, 2017). The literature also highlights that the term ‘academic success’ is a widely used term in HE that has a nebulous nature (York et al., 2015). Academic achievement was the most common term that staff reported as the meaning they would ascribe to the term student academic success. The analysis also found that staff perceived students achieving outcomes beyond the classroom as an equally important component of academic success.

As reported by Moore (2019), academic achievement has typically been the attribute presented as the most important education outcome for students, as the benefits are associated with overall student success during study and with longer term career/life outcomes. Co-curricular and extra-curricular programs for students have previously been highlighted as important for enhancing the student experience and as effective ways to prepare students for life and careers beyond university through professional and personal development programs (van der Meer et al., 2019).

In addition to the complexity reported in defining the factors that contribute to student satisfaction, the study also found that student support and students “being heard” (STF\_03, STF\_14) and “listened to” (STF\_08) by staff were the most common descriptions of factors that staff reported as contributing to students being satisfied. Tinto (2017b) reports that, when students are not supported in ways they need to

achieve the required academic and social support to improve their performance and succeed (particularly in the classroom), first-year students may have less motivation and persistence, which can contribute to a premature withdrawal from their studies. In relation to student retention, staff respondents reported factors consistent with student satisfaction. The current study found that staff considered student support and a sense of belonging from relationships formed with peers and teachers as the key factors in fostering student retention. The quality, timing, accessibility, integration, and level of academic support that scaffolds student learning beyond the classroom by university specialists has previously been identified as vital to student engagement, retention, and success (Lane et al., 2019; Willans & Seary, 2018). A sense of belonging for students is “known to be strongly associated with academic achievement and a successful life at university” (Ahn & Davis, 2020, p. 1). The Study 2 data showed consistency with the literature, which highlighted a sense of belonging for students as stemming from the perception students have from the support they receive and experience from people around them (Tinto, 2012). This point was reinforced by STF\_11, who commented that student success can be defined as students having a sense of belonging from “making genuine connections and becoming part of the community”.

### ***Influences of the Educational Reform for Student Success***

Overall, the Study 2 findings indicated that the positive influences of the FYM and BM as an educational reform to promote student success were derived from a successful whole-of-institution change to support first-year education. The FYM and BM were found to be major simultaneous pedagogical changes that had the most positive influence on first-year students when compared to the traditional mode. The interview data revealed that the positive influences on student success were generated by the

combined approaches of establishing a FYC in parallel with the pedagogical reform and the renewal of first-year undergraduate curriculum and teaching.

Study 2 found that the FYC was instrumental in enabling both pedagogical changes that improved the academic success of first-year undergraduate students compared to the traditional mode. An earlier study by Howe et al. (2019) confirmed that the FYC was a “purposely-conceived” (p. 1) multi-disciplinary faculty established to lead the FYM and block teaching implementation. The FYC was identified in the findings of this research as a dedicated college established to teach commencing first-year undergraduate students, and found to have played a critical role in facilitating the curriculum change at the centre of the educational reform. In addition, it was found that this pedagogical reform centred around the change to intensive BM learning and teaching. Study 2 also found that FYC played an important role in developing the expertise of teaching staff for intensive BM delivery and in leading the design of transition support for students entering BM first-year undergraduate studies.

As detailed in the literature review and the Practice Report by McCluskey et al. (2019), the University established a unique system of BM learning and teaching, comprising a set of design and delivery principles. The Study 2 findings revealed that three design and delivery principles were the most significant design factors that influenced first-year student success. The interview data showed that staff perceived these key factors to be the introduction of a focused and active approach to learning and assessment through the BM’s design and delivery, enabled by one intensive block unit at a time taught to students in an immersive small class learning environment. Staff also emphasised the importance of one assessment at a time for students, compared to the traditional mode where they manage assessments for multiple units at the one time. In the context of the FYM and the ‘delivery’ of BM, it is also important to consider the

impact of a FYC that created a dedicated teaching workforce for first-year undergraduate students that the University employed to facilitate the educational change. As reported by Howe et al., the University “employed motivated and expert permanent teaching professionals” (2019, p. 3) when establishing the FYC, which was an important factor in not only the efficacy of the new teaching model but also the FYE for students. In Study 2, STF\_12 highlighted their lived experience as an academic working in the FYC when they commented that the college has “really supported a culture of engaging with professional learning”.

Study 2 found that the intensive BM design changed the traditional mode of learning environment for students. Class groups were significantly reduced in size for the new model, and the on-campus lecture and tutorial format learning environments were modified to deliver the more intensive BM. Interactive and collaborative small classes were taught in built-for-purpose learning environments that enabled focused and active learning through involvement in the learning process (Cuseo, 2007), and increased peer and teacher engagement. Teaching in person and in interactive and collaborative small classes is an approach that educators use to promote learner engagement, critical thinking, participation, and interactions between students and teachers (King et al., 2018). Nine participants concurred that learning and teaching in small classes worked well and had a positive influence on student learning and success. This view is representative of the literature presented by Ehrenberg et al. (2001), Hornsby and Osman (2014), and Mulryan-Kyne (2010), who reported that reduced class sizes can cause changes to other elements of educational design. These changes may include different approaches to teaching and assessment for small classes that increase interaction between students and teachers with a focus on the individual needs of students to promote engagement, active learning, accountability, motivation, deep

learning, and a quality education experience. The literature has reinforced that much debate continues within the HE sector about the advantages and disadvantages of large lectures and tutorials when compared to teaching small classes for student academic success. However, reduced class sizes have been considered to be one of the “key variables in the ‘production’ of learning or knowledge” (Ehrenberg et al., 2001, p. 1) when implemented successfully with other changes to educational design.

The Study 2 findings also indicated that other key factors associated with the BM’s focused and active approach to learning had a positive impact on first-year students, compared to the traditional mode. These factors included a positive impact on improved student satisfaction as a result of improved academic achievement, improved peer-to-peer and student/teacher relationships, and a greater sense of belonging for students. The literature widely acknowledged student engagement as a vital influence on academic success in HE, with student/teacher relationships at the core (Kahu, 2013). Intensive scheduling of units, such as the system used in the University’s FYM and BM, could be attributable to improved first-year student success outcomes generated from enhanced student engagement. Intensive modes of learning and teaching can foster smaller peer learning communities, enable greater access for students to teaching staff, and enhance relationships for students with both their peers and teachers (Buch & Spaulding, 2011; Kahu, 2013; Turner et al., 2021). In Study 2, STF\_08 reported that the “First Year College and the First Year Model set out to create a learning community, through the staff and within the students.” As a result, students who studied in the FYM and BM may have experienced increased self-efficacy compared to those students who studied in the TMG. Tinto (2017a) specifically noted that the first year at university is a critical time for students to adjust to the demands of HE and that their perception of their self-efficacy can fluctuate during this time. An inclusive learning and institutional

environment for students from equity group backgrounds is reported to be a key factor in providing a personalised sense of belonging so they may be successful in HE (Rubin et al., 2022).

Study 2 also revealed the importance of transition support, extending beyond the FYC and the classroom, to enrich the new model. These elements included tailored co-curricular programs for block units, administrative services, academic support, and development programs (Howe et al., 2019; Kift & Nelson, 2005) designed to fit a BM system. Academic support for students at this University has been reported in the literature as being operationalised in alignment with the curriculum to foster help-seeking behaviours in students (Howe et al., 2019; Kift, 2015; Samarawickrema & Cleary, 2021; Tinto, 2017a). McCluskey et al. (2019) revealed that the University already had a good foundation for transition pedagogy before the education reform, and found evidence that many transition principles and initiatives were embedded in organisational practice through a comprehensive student retention policy.

The Study 2 findings revealed that curriculum renewal was also undertaken in parallel with a redesign of other programs, services, and processes to create an entirely purpose-designed learning environment for students to engage in their first-year BM learning experience. The redesigned programs, services, and processes to support the FYM and BM included the “mechanical side” (STF\_08) of the FYC, the “curriculum reform” (STF\_04) needed, and changes to “pedagogical principles” (STF\_11).

Respondents confirmed the scale and scope of the change to the University’s core operation when they commented on the many centrally supported dependencies that also had to change. These staff and student services included “timetabling” (STF\_14), “administrative processes” (STF\_02), and professional development for academics to learn how to “block a unit” (STF\_04) and to work in partnership with learning “design

teams” to transition units for BM. STF\_07 represented this finding when they commented on having to “learn how to buy into that shared way of working, and it wasn’t easy at the start”.

### ***Inclusive and Student-Centred Approaches are Essential for the FYE***

The Study 2 analysis revealed that the major pedagogical and institutional changes to support the educational reform resulted in improved student-centred approaches for the FYE that promote student success (Weimer, 2013). This change was reported as improving student retention and the sense of belonging students had at the University, gained from improved relationships with teachers in the FYM and BM.

Ten of the interview respondents commented that, through the establishment of the FYM and BM, the University improved student-centred approaches to support first-year undergraduate students. STF\_10 represented the change in approach when they stated that they had adapted curriculum to ensure “what we’re doing is meeting that student experience”. The Study 2 analysis revealed that improved digital learning technologies contributed to improving the design of inclusive student-centred learning in BM. Furthermore, responses from participants also highlighted that a renewed first-year student-centred approach meant that teaching staff could engage better with students by having “more capacity to understand the student’s needs better” (STF\_02), which enhanced teacher/student engagement and relationships. As a pedagogical concept, student-centred learning (as opposed to teaching-centred) is considered to be fundamental in HE to prepare students as lifelong learners (Marín, 2022). The literature reported that student-centred approaches to both learning and teaching offer students more individual autonomy and responsibility for self-directed learning and that more learning support is required for key areas of the learning process, such as the social aspects of active and peer learning and the management of cognitive load (Lee & Hannafin, 2016). Self-determination theory is connected to student-centred approaches to learning and teaching and it highlights the need for students to have highly developed attributes of motivation and autonomy, together with personal well-being (Naude et al.,



2016; Ryan & Deci, 2000). Daniel (2000) reported that modified teaching practices for intensive mode education typically include more experiential features. As a result, students adopt a more active, motivated, and engaged learning approach, compared to students who learn in traditional mode. Given the intensity and short, four-week duration of BM units, these student-centred approaches and design factors will have been essential in supporting first-year student success.

The Study 2 data also revealed that a more inclusive learning and teaching environment for students from equity group backgrounds was highlighted by 11 staff respondents. More inclusive approaches included descriptions from respondents such as “small class groups” (STF\_02), “working in groups” (STF\_03), and “focus on one subject” (STF\_04), which are characteristics of the BM. One respondent highlighted that these approaches led to “more personalised support” (STF\_14) being available for students from equity group backgrounds. Seven participants commented that this support improved the sense of belonging for equity group students. This finding was consistent with Rubin et al. (2022), who reported that inclusion, belonging, high-quality support structures and learning and teaching strategies are essential to building student equity.

### ***Staff Experiences of Implementing an Educational Reform***

While the current study revealed direct positive influences on student success, it was also found that indirect influences arose from the first-year educational reform. Staff reported that the whole-of-institution change required to establish a FYM, and BM learning and teaching, was a “massive transformation” (STF\_05) to be a “successful university” (STF\_02), that enabled a FYC to be established with an “intentional culture” (STF\_07) that influenced FYE and their success. In contrast, the study also found that there were challenges for teaching staff associated with the rapid and large scale of

change. For all commencing undergraduate students to undertake first-year studies in the newly established multi-disciplinary FYC, a structural change to the University was necessary to establish the new FYC, transition first-year undergraduate subjects from the DBCs and re-structure staffing.

It is reported that annually the FYC enrolls and teaches over 4,500 students (VU, 2022b). A change of this magnitude, for college leadership, teaching staff, and the newly commencing first-year students in the FYM and BM, brought about a period of immense change for many aspects of the University's operations. The implementation of an educational reform at the scale of this first-year student population, across multiple academic disciplines, would be expected to have faced challenges in the design of the pedagogical change that benefits students and staff (Bryant, 2022b, 2022a). One reason explaining the "resistance to that change" (STF\_4), highlighted by staff as their experience within these first two years of implementation, may be the change itself to an unknown FYM and BM learning and teaching model. The Study 2 data findings showed that the change required staff to collectively embrace and learn new skills and knowledge to "refresh their practice" (STF\_12). One respondent described attributes required of all academic staff in colleges so that the University may consistently achieve success in the longer term for the educational reform program. STF\_02 commented that it would require them to "align our behaviours and align our planning around what's strategically important for us as a university as a whole."

The Study 2 interview data highlighted how "disruptive" (STF\_02) the reorganisation of units, students, and teaching staff associated with courses (Sewagegn & Diale, 2021) had been to establish a FYC, outside of the discipline college operations. Due to these disruptions, all 16 respondents commented that enhancements could be made to the FYM and BM, and that the University requires a "continuous improvement

cycle” (STF\_14) post the implementation phase. The efficacy of, and opportunity for, this style of engagement in any continuous improvement review/program with academics were represented by STF\_03 when they commented on the need for a greater sharing of ideas to “further enhance the model”. Differences in staff views on their experiences of the change were evident in the interview data, as represented by STF\_10 when they commented that there is “bias towards particular discipline areas”. As highlighted by Honkimäki et al. (2022), for any curriculum reform process to be successful, there must be trust among stakeholders, and their views and feedback must be sought on the reform.

### ***Challenges of the BM Educational Reform for Student Success***

The reform of only undergraduate education for first-year students was found to create challenges for students (and colleges) in the effective design and delivery of education at the BM course level. These challenges were represented by STF\_03, who commented that “more scaffolding to support learning all the way through” was required. Furthermore, the Study 2 results revealed that the FYM, and BM require a review and cycle of continuous improvement that authentically captures the first-year student voice and feedback on their lived experiences and their graduate outcomes post-study. The literature on student evaluation and feedback of learning and teaching highlights the importance of understanding the complexity associated with the student experience and their meanings of ‘success’. Rubin et al. (2022) reported that engaging with students to understand their experiences and meanings of success, beyond evaluation surveys and metrics, is considered critical to understanding the complexity of student success and enhancing the student experience.

The results also revealed that teaching staff expressed concern with challenges experienced supporting students with accessibility needs in BM. These challenges were

found to be a result of the BM's intensity and pressure of the delivery mode that also impact staff. Respondents commented on their experiences of the flow-on effect of issues for SWD and additional support needs due to the pace and intensity of BM. There is a dearth of literature on the access and participation of SWD within intensive modes of delivery, comparable to the FYM and BM at the University. A recent study by Turner et al. (2021) on the introduction of immersive scheduling in a UK university found that SWD had achieved enhanced marks comparable to students without a disability and that the delivery format did not impact existing differences between the two groups. The researchers also reported this to be a significant finding for intensive mode education "given unease amongst some colleagues at the host institution that immersive delivery may disadvantage specific sub-groups" (Turner et al., p. 1380). The results in Study 2 suggest that the issue for staff is the condensed timeline of the four-week BM that's "harder to deal with" (STF\_08) for teachers to support SWD effectively and promote their student success.

## **Summary**

Study 2 identified key factors in the educational reform that were effective in improving the academic success, satisfaction, and retention of first-year undergraduate students, including those students from equity group backgrounds. These key factors included three aspects of intensive BM education: (a) focused and active learning; (b) one intensive block unit at a time; and (c) an immersive small class learning environment. The Study 2 findings evidenced the significant role of a dedicated FYC in leading the curriculum renewal, improved student-centred approaches, and enhanced learning and teaching technologies for first-year students. Furthermore, the Study data reported that multiple aspects of the educational reform were considered to have improved the sense of belonging students had in their first-year studies. However, staff

also reported that the FYM and BM led to challenges for students in experiencing a consistent, whole-of-course approach across all years of their study, which requires a review of course design and delivery across multiple colleges and a continuous review cycle in future.

The relationships teaching staff developed with students in a new learning environment, due to the FYM and BM, were identified as being essential to the development of an engaged community of learners that positively improved the student experience. In contrast, the findings also revealed that there is a continuous improvement cycle or program yet to be developed to ensure that the educational reform is successful and sustainable in the long term across the University. The Study 2 findings indicated that the FYM and BM improved the FYE and outcomes for students from equity group backgrounds. However, the findings also revealed that academic staff expressed concerns about supporting the needs of SWD effectively, due to the BM scheduling and intensity. Study 2 also identified how staff describe student academic success, satisfaction, and retention, and it was evident that they perceive there to be some complexity in the definitions due to the individual nature and context of student success evident. The need for students to be listened to and learnt from, with respect to their lived experiences of the FYM and BM as learners, was reported as a key opportunity to further enhance student success in the future.

Chapter Six details Study 3 and the qualitative investigation of student perspectives in relation to the FYM and BM to address the research aims. The chapter details the qualitative research method, the data collection and analysis procedures, and presents and discusses the results of the qualitative analysis.

## **Chapter Six: Study 3 – Qualitative Analysis of Student Perspectives and Experiences**

This chapter details the second qualitative study (Study 3) conducted to address the research aims through the perspectives of students at the University. This chapter details the research method, participants, instrument, procedure, and data analysis used in Study 3 to address the research aims. This chapter then details the results of the research analysis and discusses the Study 3 findings.

### **Method**

The qualitative research conducted in Study 3 was undertaken using the same method detailed for Study 2 (see Chapter Five).

### **Participants**

Study 3 participants were recruited from the target sample used in Study 1 (see Chapter 3). The 5,582 data sources contained within the sample were reviewed by the researcher for use in recruiting participants for interview. Data sources that had no email contact information, recorded a deceased status, or presented as a duplicate student (i.e., a unique student enrolled in more than one unit within the sample) were removed. This process resulted in 3,387 unique data sources from which to recruit sufficient participants for interview to collect the data.

Participants were recruited via an EOI email campaign (see Appendix P) to participate in an interview to explore the research aims. The PIS was provided to students (see Appendix H) with the email invitation, as detailed in Chapter Three. The EOI emails were released using a batched release schedule, which enabled a staggered release of EOIs by academic discipline and course. The decision to batch the data sources over five staggered releases was based on an assessment of the quantity of data

sources for each academic discipline. The decisions were made in consultation with the Principal Supervisor to create a more manageable release schedule for the researcher for timely responses to participants and to make the administration of interview scheduling efficient. The EOIs were released over a one-month period, as follows:

- release 1: Law and Justice and Engineering and Science data sources ( $n = 417$ )
- release 2: Arts and Education data sources ( $n = 745$ )
- release 3: Health and Biomedicine data sources ( $n = 1,225$ )
- release 4: Business data sources ( $n = 793$ ); and
- release 5: Sport and Exercise Science data sources ( $n = 207$ ).

The EOI responses and rate of response was discussed with the research supervisors at regular meetings, and each EOI batch was released as each release was exhausted for responses following a reminder email campaign. The process enabled the researcher to monitor EOI responses and ensure an adequate distribution of participants across the target population groups and the target sample. The decision to close the recruitment campaign was made once follow-up reminder emails had been issued for each batched release of EOIs, in consultation with the Principal Supervisor. This decision was also made when the researcher had: (a) confirmed that sufficient EOI responses across the target population and sample had been achieved to collect the data; and (b) that any further reminder campaigns would not be ethical nor generate further EOIs.

Twenty-five EOI responses were received from students in response to the recruitment campaign. This represented a 0.74% response rate of students expressing their interest to participate in an interview. A total of 17 students progressed to an interview (see Table 32), representing all six academic disciplines and each of the 12 units included in the research sample except for one (Communication Management). Eight students did not progress to an interview for several reasons that included being a

‘no show’ (four students), interview cancellation (one student), no reply to confirm a proposed interview time (two students), and one student who only wanted to participate via a written response.

Each of the commencing first-year undergraduate groups (TMG, IBG and SBG) were represented by the participants interviewed. Four participants studied in the TMG (2017), two participants studied in the IBG (2018), and 11 participants studied the SBG (2019). The course status for each participant at the time of recruitment was noted by the researcher. At the time of recruitment, 10 participants were enrolled and continuing with their studies, two participants had completed, and five participants were reported as having a discontinued, lapsed or inactive enrolment status in the University records (see Table 32). The participants represented each of the equity groups, and 41% of the participants self-identified as being a SWD on their enrolment record. Gender identity has not been reported for each participant as this could lead to identification of some participants. Overall, 10 students identifying as female were interviewed, which accounted for 59% of the participant group. For the purposes of confidentiality, a pseudonym was applied for each participant as illustrated in Table 32 below.



**Table 32***Participant Profiles (Student Interviews)*

Participant Pseudonym	Group (first year)	Discipline	Course	Unit(s) of Study	Course Status <sup>a</sup>	Equity Group Status	Domestic Status
STU_01	SBG (2019)	Law	Bachelor of Laws	<ul style="list-style-type: none"> <li>• Legal System</li> <li>• Legal Research</li> </ul>	Enrolled		International
STU_02	SBG (2019)	Arts and Ed	Bachelor of Education (P-12)	<ul style="list-style-type: none"> <li>• Professional Learning</li> </ul>	Enrolled	• SWD	Domestic
STU_03	SBG (2019)	Arts and Ed	Bachelor of Arts	<ul style="list-style-type: none"> <li>• Sociology</li> </ul>	Enrolled	• SWD	International
STU_04	SBG (2019)	Health	Bachelor of Nursing	<ul style="list-style-type: none"> <li>• Indigenous Health</li> <li>• Professional Studies</li> </ul>	Discontinued	<ul style="list-style-type: none"> <li>• SWD</li> <li>• LSES</li> </ul>	Domestic
STU_05	SBG (2019)	Health	Bachelor of Nursing	<ul style="list-style-type: none"> <li>• Indigenous Health</li> <li>• Professional Studies</li> </ul>	Enrolled	<ul style="list-style-type: none"> <li>• LSES</li> <li>• NESB</li> </ul>	Domestic
STU_06	SBG (2019)	Arts and Ed	Bachelor of Arts	<ul style="list-style-type: none"> <li>• Sociology</li> </ul>	Enrolled		Domestic
STU_07	TMG (2017)	Health	Bachelor of Nursing	<ul style="list-style-type: none"> <li>• Indigenous Health</li> <li>• Professional Studies</li> </ul>	Lapsed		International

Participant Pseudonym	Group (first year)	Discipline	Course	Unit(s) of Study	Course Status <sup>a</sup>	Equity Group Status	Domestic Status
STU_08	SBG (2019)	Business	Bachelor of Business	<ul style="list-style-type: none"> <li>• Information Systems</li> <li>• Economic Principles</li> </ul>	Enrolled		Domestic
STU_09	IBG (2018)	Business	Bachelor of Business	<ul style="list-style-type: none"> <li>• Information Systems</li> </ul>	Completed	•SWD	Domestic
STU_10	SBG (2019)	Health	Bachelor of Nursing	<ul style="list-style-type: none"> <li>• Indigenous Health</li> <li>• Professional Studies</li> </ul>	Enrolled	<ul style="list-style-type: none"> <li>•SWD</li> <li>•LSES</li> </ul>	Domestic
STU_11	TMG (2017)	Health	Bachelor of Nursing	<ul style="list-style-type: none"> <li>• Indigenous Health</li> <li>• Professional Studies</li> </ul>	Lapsed		Domestic
STU_12	SBG (2019)	Business	Bachelor of Business	<ul style="list-style-type: none"> <li>• Information Systems</li> <li>• Economic Principles</li> </ul>	Inactive	•SWD	Domestic
STU_13	TMG (2017)	Business	Bachelor of Business	<ul style="list-style-type: none"> <li>• Information Systems</li> <li>• Economic Principles</li> </ul>	Enrolled		Domestic
STU_14	TMG (2017)	Arts and Ed	Bachelor of Education (P-12)	<ul style="list-style-type: none"> <li>• Professional Learning</li> </ul>	Inactive		Domestic
STU_15	SBG (2019)	Arts and Ed	Bachelor of Education (P-12)	<ul style="list-style-type: none"> <li>• Professional Learning</li> </ul>	Enrolled		Domestic
STU_16	SBG (2019)	Engineering	Bachelor of Information Technology	<ul style="list-style-type: none"> <li>• Programming</li> </ul>	Enrolled	•NESB	International

Participant Pseudonym	Group (first year)	Discipline	Course	Unit(s) of Study	Course Status <sup>a</sup>	Equity Group Status	Domestic Status
STU_17	IBG (2018)	Sport	Bachelor of Exercise Science (Clinical Practice)	<ul style="list-style-type: none"> <li>• Structural Kinesiology</li> <li>• Human Physiology</li> </ul>	Completed	<ul style="list-style-type: none"> <li>• SWD</li> <li>• LSES</li> <li>• First Nations</li> </ul>	Domestic

*Note.* <sup>a</sup> University course status descriptors other than ‘enrolled’ are ‘lapsed’ (enrolled for a defined length of time and converted to a lapsed status by the University), ‘inactive’ (enrolled to consume load but the current date is outside of the teaching period for that enrolment), and ‘discontinued’ (withdrawn with or without academic penalty).

The researcher was informed by one student of their First Nations background at the interview (not previously recorded in University data). This additional participant profile information was added to the above table. In addition, additional data was collected at the interviews pertaining to course enrolment history at the University. This important information is recorded below to support the reporting of results in this chapter:

- (a) STU\_04 commenced an Advanced Diploma (Music) in 2015, progressed to second year Bachelor of Music in 2016 (TMG), and then commenced Bachelor Nursing in 2019 (SBG).

- (b) STU\_07 was found to have only studied in traditional mode throughout their course. STU\_11 transferred to Bachelor Biomedicine in 2019 (SBG) from Bachelor Nursing (TMG).
- (c) STU\_13 and STU\_14 both experienced BM delivery in subsequent years of study after their first year because the mode was implemented for all UG courses.

## **Instrument**

A student interview guide was developed to investigate the participants' first-year undergraduate lived experiences and perspectives, and their individual insights. The interview guide was segmented into two sections containing open-ended sets of questions to explore the perspectives of different participant groups (see Appendix Q) and address the research aims. Set A questions guided the interview for IBG and SBG participants. Set B questions guided the interview for TMG participants. The interview questions for each set were developed using the same approach described in Study 2 (see Chapter Five). The draft interview guide was reviewed with the research supervisors to discuss any potential changes required post the completion of the staff interviews. No changes were made.

## **Procedure**

Study 3 utilised the same procedure detailed in Study 2 (see Chapter Five). When interviewing student participants, Choy (2014) states that semi-structured interviews are viewed by students as a “nice counter to completion of anonymous and impersonal surveys” (p. 103). Furthermore, researchers are able to investigate student attitudes more deeply and the explanations behind them, which is not possible through quantitative resurveys (Choy, 2014). The interviews generated over nine hours of interview recordings and 187 pages of transcript.

## **Data Analysis**

Study 3 utilised the same data analysis method detailed in Study 2 (see Chapter Five).

## **Results**

The purpose of Study 3 was to explore the research aims utilising qualitative data collected and analysed from interviews with 17 participants who were students at the University. This results section presents the views of participants from the IBG and SBG who studied in the FYM and BM during the first two annual intakes, and the views of participants from the TMG the year prior to the educational reform commencing.

During the interviews it was revealed that some TMG participants also experienced BM due to different course enrolment circumstances while attending the University (as noted in Table 32). The reflections of TMG participants, who experienced BM or mixed modes of learning while attending the University, are reported where the results assisted with the comparative analysis of BM and traditional mode. However, TMG participants did not experience learning in the FYC or the FYM having commenced their courses in the DBC model in 2017.

The data analysis resulted in three key themes: (1) essential factors for student success; (2) aspects of the FYM and BM that influenced student success; and (3) opportunities to enhance student success. These three themes contain 13 sub-themes that detail the perspectives and experiences of the participants explored through qualitative interviews. These themes are reported in the sections below.

### ***Theme 1: Essential Factors for Student Success***

The participants provided their perspectives of student success and gave contextual insights into the priorities for academic success, student satisfaction and student retention. Participants gave priority to learning gain, academic achievement, and teacher engagement and support as the essential factors required for student success, as reported below.

## **Learning Gain and Academic Achievement**

The participants reported academic success indicators such as good grades, knowledge gain, and the completion of study, as contributing factors to being successful students. Twelve participants articulated academic success as their learning gain and included descriptions of “gaining knowledge” (STU\_06), “understanding” (STU\_01), “my knowledge has broadened ... understanding of different topics” (STU\_03), and that academic success “transcends what I believe is traditional grades” (STU\_10) and is the “application of the knowledge” (STU\_10). Nine participants indicated that academic success was defined as academic achievement, as exemplified by STU\_04 when they responded, “high grades ... recognition of grades, of how hard you have worked”. Two participants described the characteristics of academic achievement as “good marks” (STU\_13) and “when I see the good marks it makes me work harder next time to keep it up there” (STU\_06). In contrast, three participants responded that course completion indicated academic success, as represented by STU\_12 who commented that “academic success means to me ... being able to successfully complete my study” (STU\_12).

Student satisfaction was seen as part of being successful. Participants also reported that learning gain and academic achievement contributed to their levels of satisfaction. Eight participants reported a link between their satisfaction and learning gain and academic achievement. This theme was represented by STU\_06, who stated that “my academic results have made me feel quite satisfied because it lets me know that I’m actually learning something. If I see the results, it makes me acknowledge that it’s working and that I’m furthering my knowledge.” Two participants specifically commented that the factors that contribute to their satisfaction include “feeling confident in my learning” (STU\_15) and having “learned something new that I can apply to what I am going to be doing professionally” (STU\_02).

## **Teacher Engagement and Support**

Participants reported that teacher engagement also contributed to their satisfaction and connected this level of satisfaction with how likely they were to remain in study. Five participants highlighted teacher engagement as being important to their student satisfaction. STU\_11 commented that “a good lecturer who’s engaging is one of the main things, if you’ve got someone that is excited to teach you and makes it easy for you, you’re more inclined to listen and pay attention.” One international student participant (STU\_01) highlighted the importance of teacher engagement in the classroom for international students studying in Australia when they commented they can “talk about my views” and that the teaching staff “really appreciate” the sharing of their views through class discussion and written work. This same international student also commented on what it means to be satisfied as an international student outside of the classroom when they specifically highlighted their experience:

as an international student, and as a person of a different background and culture, I’m being taken seriously when I get involved with discussion about mental health and employment and a lot of other situations where I advocate for international students.

A different perspective was provided by one participant (STU\_14), who commented that “a big thing is just feedback. I feel if I’m receiving good feedback, I feel happy ... this is going to help me move me from point A to point B.”

In the context of student retention, teacher engagement was also reported by participants. Eight participants related the link between successfully remaining in study and satisfaction, reporting that teacher “engagement” (STU\_08) is essential for their success. This theme was represented by STU\_11, who stated that their retention in study



was supported by “good lecturers that are really engaging, that put the effort in, and they make the classes exciting”. Two participants further commented on the characteristics of teacher engagement when they reported “passionate teachers” (STU\_10) and “teachers who are enthusiastic about what they’re teaching” (STU\_05). STU\_14 highlighted the importance of teacher relationships and support when they stated that it’s “not just good relationships, but you can have a laugh with them, but they’re also providing support and helping you get where you feel you need to go. The support is part of a good relationship.”

### **Summary**

The outcomes of the Study 3 data analysis reported for this theme revealed what students consider to be most essential for their success. The results provided contextualised insights from first-year students at this University. Their perspectives of student success revealed that each essential factor has multiple associations between academic success and student satisfaction, or student retention and student satisfaction.

### ***Theme 2: Aspects of the FYM and BM that Influenced Student Success***

Six key aspects of the FYM and BM were identified that influenced students succeeding in their studies. Participants clearly expressed the benefits of focused learning and assessment through the study of one unit at a time, and the relationships formed with engaged teachers. Participants also reported on aspects outside the formal learning environment that they considered to be most beneficial to their success. Those aspects were more specific to the FYM design for first-year students and included university support services and programs that provided opportunities for growth and development outside the classroom and being prepared for study in subsequent years of their course. Overall, the majority of participants reported their general satisfaction as a

first-year student and what contributed to that level of satisfaction. Participants from equity group backgrounds expressed their satisfaction as being due to an inclusive FYE, with accessible approaches to learning and teaching.

### **Focused Learning and Assessment in BM**

Participants considered focused learning and assessment, through studying only one unit at a time, to be a key aspect of their success in the FYM and BM. Thirteen participants commented on the benefit of studying one unit at a time. This benefit was highlighted by STU\_15, who commented that “just knowing that I didn’t have to worry about other units at that time, I could solely focus on one thing, one assignment at a time, was really good.” One participant detailed the benefit of focused learning on their academic success when they commented:

I could focus on one subject and make sure I had all the material down and not concerned about doing two assessments and half-doing both of them than focusing on one and doing it to the best of my ability ... that aspect really contributed to my success. (STU\_09)

One participant from this group reported that the BM’s focused learning and assessment was “the secret to my success” (STU\_08), and described characteristics of the BM that contributed to their success, including “it’s one thing, all you have to focus on ... it certainly made me understand scheduling and timelines ... because it’s a lot more intense. You can’t just wait until the last minute.” Another participant from this group highlighted the influence on their academic success, commenting on “being able to focus on the unit and do as much as I can in that unit in the time and being able to get the grades that I wanted” (STU\_04). Four participants commented that “one assessment

at a time” (STU\_05) was more “manageable” (STU\_09) and that this element of the BM was “designed for students to be successful” (STU\_12).

### **Teacher Engagement and Relationships**

Fifteen participants highlighted their positive experiences of teacher engagement in the FYM and BM, and of the relationships they formed with teachers. This theme was reinforced by STU\_03, who responded that “I had really great teachers ... I didn’t feel they were out of reach ... if I had a problem or an issue, I could go to them.” One participant commented on their student satisfaction with teacher engagement when they stated that “the one thing that made me very, very satisfied was that I could actually speak to teachers quite easily. There wasn’t that distance between faculty and students. There wasn’t that power indifference that normally would happen at an institution” (STU\_10). Another participant highlighted the influence that teacher engagement had on their FYE when they reflected: “If I think back, being really invigorated by the lecturers, and some of them really started to really open my mind to just new ways of thinking” (STU\_06). This participant further commented that “I’ve enjoyed getting to know the lecturers quite well. I feel like because you spend that quite intense time with them, and generally we come away on first name basis” (STU\_06).

Five participants commented specifically on how satisfied they were with the highly engaged teaching staff in the BM’s small class environment, as exemplified by STU\_10, who stated:

The best part would just have to be the network with some of the great staff. Again, the best thing is that you tend to have a good, professional relationship with a lot of the staff, given the fact that you're so intimately involved in a small classroom environment. And I think for me, that's been the best thing.

This participant further commented that they were “quite satisfied and impressed with how dedicated the teachers were because of that small classroom environment” (STU\_10).

The impact of highly engaged teaching staff on a positive BM learning experience was also highlighted by STU\_06 when they commented that “the more engaged they are, the more interesting they are, the more interested they are in us, the more interested they are in the topic, it brings the whole unit alive (STU\_06)”. Another participant reported on the “the communication with us as students and the way that they make us participate ... having a small class or 20, 30, it’s pretty intimate. We all just learn from each other, and that’s better” (STU\_03).

A different perspective was provided by one of the TMG participants, who compared their first-year study experience in the traditional mode compared with their BM experience in future years of study. STU\_11 responded that they “didn’t feel like you developed a relationship with the person. Whereas now I feel like I have that one teacher where I can go to and ask them, or I can ask them in class because we have more time face-to-face.” Another TMG participant commented on their experience of teacher engagement and the traditional mode learning environment when they stated “I could tell there were actually other students who were international students who just came from overseas and they were trying to figure out what’s happening. They were not really sure of the environment” (STU\_07).

### **University Support Services and Programs**

The participants also considered factors outside the classroom, such as university support services, to be essential to their first-year student success and for BM learning. Nine participants responded that the University’s support services were a positive

influence on their student success in the FYM and BM. This theme was represented by STU\_01, who commented that “all the support services that the University has, I’ve used, and this helps me to be where I am right now ... they made sure I understand from A to Z what I needed to do.” STU\_02 commented that the “academic support and mental health support is really important for the block model” and STU\_04 reported the support to be “quite helpful”. The availability and efficacy of the support for students studying in BM was commented on by STU\_10, who stated that the University “puts a really good emphasis on that, whether it’s Learning Hubs ... or even the online tutoring ... there’s some really great resources”. STU\_11 first commenced as a TMG student and went on to study in the SBG. They explained the support they received from a University student counsellor that had a positive impact on their student success, reporting that “what he said to me stuck with me, so that had an influence on me.”

Seven participants highlighted the opportunities for individual growth that the FYM provided, such as “getting into leadership roles, and upskilling my personal skills” (STU\_01), industry “placement” (STU\_17), and student volunteering programs that they “really enjoyed ... I got so much out of that” (STU\_12). STU\_10 commented positively on BM scheduling and in-person teaching on campus which enabled first-year peer support and relationship building when they commented:

I guess the best element for me was actually going into the University, hanging out with people, getting into my class, doing the work and having that confirmed time afterwards, where it's like I can debrief before my next class, or I can hang out with my mates before the next class, because there is that timetabling that works in your favour, really.

## **Confidence and Preparedness for Subsequent Years of Study**

Nine participants expressed the view that the FYM prepared them for subsequent years of study in their undergraduate course. STU\_01 specifically highlighted that “it definitely provided me stability in my future studies” commenting they were experiencing “quite a smooth journey right now” in their later course years because they know what is “expected”, they are able to “focus” their attention on the BM study timeframes and felt confident having achieved “early success in my first year” and receiving the support to that has “prepared me well for the workload”. STU\_05 highlighted that their FYE did prepare them well and stated they “learnt a lot about group projects, and a lot about people. I learnt about direct communication because I was not a direct communicator.” This theme was also highlighted by STU\_08, who commented that “I learnt how to learn”, and STU\_09, who responded that “I believe afterwards, in progression with my studies, I was able to manage my time better and know what was important to me and know how I would best do the unit.”

One participant also commented that the first-year prepared them well for future years of BM study because they have had a “consistent experience” (STU\_15) throughout their course. In contrast, a different perspective was provided by one participant who reported that they did not understand how BM worked until late in the first year, which impacted their university studies in future years:

right at the end of first year, a lecturer sat down with me and drew it out and explained how it all worked. And it only sank when I saw ... the actual units and blocks, and he explained to me how it all works ... so maybe upfront I could have done with that being explained to me quite clearly. (STU\_06)

This participant also reported their concern that they may have “missed something” because they “started a little bit late in the year ... in April” (STU\_06) and not during the major student intake at the beginning of the academic year.

### **Satisfaction as a First-Year Student**

Most participants reported that they were satisfied in the FYM and BM. Twelve participants commented that they were satisfied with their learning and overall FYE. This theme was represented by STU\_17, who stated that the University had “outdone themselves to make sure that the students get the full experience ... I was very satisfied.” STU\_01 specifically commented on their satisfaction with teaching staff when they stated that “I’m very satisfied. I think I couldn’t have get to where I am with the achievement that I have, like a lot of HDs and distinctions, because of the support that I had.” The connection between student academic success and satisfaction was also highlighted by STU\_04 when they responded that “personally, I was quite satisfied because I had high grades across the board.” Overall satisfaction as a first-year learner in the FYM and BM was exemplified by STU\_15, who commented:

I found out a lot about myself as a learner and about what education is. I had a lot of misconceptions that were sort of cleared up for me. It was a really interesting year. I like learning, and I think for me, a big part of it was just enjoying studying. I was happy with how I did in terms of my success and my grades and things, so overall, it was a good first year.

The participants further described and acknowledged their satisfaction with the FYM and BM when they responded, “I’m really happy as a student ... I would say it’s actually the best year since it was an in-class” (STU\_16), and “I was really satisfied” (STU\_02). In contrast, one TMG participant reported how unsatisfied they were as a

first-year student learning in the traditional mode. STU\_07 described their FYE: “when I was trying to figure out what’s happening, it was a disaster ... I felt overwhelmed, especially where every subject has an exam, assignments are due, and everything is just coming to you ... I really felt overwhelmed.”

### **Inclusive and Accessible FYE for Equity Group Students**

Nine equity group participants expressed their positive experiences of learning and teaching in the FYM and BM. This theme was represented by a SWD participant from a LSES background, who expressed that “I felt welcomed and accepted in the community” (STU\_04). In addition, six non-equity group participants also shared positive experiences of studying with students from equity group backgrounds, and shared reflections of the experiences their peers had in first-year study. STU\_07 provided one such observation when they reported that students from equity group backgrounds “felt really included” and that “it’s one of the best things” about studying at the University.

Four participants highlighted the benefits of studying with a diverse range of learners from different equity group backgrounds, particularly other students from NESBs. This perspective was represented by a range of comments from participants that included they “love having the diversity” (STU\_06) and that it enables them to “learn how to interact with other people” (STU\_07) and find out what “they value” (STU\_07). STU\_08 expressed that they felt “very proud” to be part of such a University, with a diverse student population, that provided them “with one of the best soft skills” from learning about different cultures through their peers.

Five participants commented on how “accessible” (STU\_15) the course was for SWD. One participant with a disability represented this characteristic of the FYM and



BM when they stated that “the educators are very willing to help ... the language they use is quite accessible.” The same participant commented on the inclusivity of their education experience when they stated that they felt they had “gained a lot of confidence in myself ... I’ve felt proud that I’ve achieved what I have. I definitely feel like that part of that success has come from the accessibility of the course” (STU\_15). Another SWD participant specifically highlighted the additional support provided to them to study successfully in the FYM and BM, when they responded that the individual Access Plan developed for them “helped so much” (STU\_17) and that “teachers understand what an Access Plan is which is a huge thing” (STU\_17). STU\_10 commented on their experience of being granted additional time if they needed it due to their disability, when they stated that “I did find that it was incredibly useful in terms of getting those extensions if I needed them ... not that I utilised it too much, but I had it there as a ‘just in case’.” A First Nations participant with accessibility needs, interviewed within this group, highlighted the benefit of group work in class, commenting that they were “made to interact with people that are completely different to you ... that’s a real strength of block mode” (STU\_17).

Four participants commented that the BM was inclusive for NESB students through the inclusive teaching practices and the ability for students whose first language is not English to only “focus on one thing” (STU\_12) through BM design. STU\_17 supported this statement when they reported that NESB can “concentrate” better in BM. Descriptions of the inclusive teaching practices for NESB participants included “there are lots of support systems ... that has assisted them with the first year block model” (STU\_01), and “because our lecturers were so approachable and easy to talk to, it was really easy to go up and say I am not quite understanding this” (STU\_02).

Two participants commented on the low cost of study for students from LSES backgrounds related to purchasing course materials, which also made learning more accessible. STU\_02 highlighted the improved accessibility of course materials for students from LSES backgrounds that reduced the financial costs of study when they responded:

at no point does anyone say you've got to go and buy this textbook for a class. If we need a reading, or we need to have access to a text for the three weeks or the four weeks that we need the access to it for this unit, it's provided to us. It's really easy to access.

In contrast, six participants provided perspectives that there were limitations for students from equity group backgrounds, specifically related to BM. These limitations are discussed further in the next theme.

### **Summary**

The results in this theme identified the aspects of the FYM and BM that influenced student success. The six key findings reported above highlighted the benefits of focused learning and assessment in BM that created a learning environment more conducive for teacher engagement and the nurturing of student-teacher relationships. This change, together with the design of university support services and programs to complement the FYM and BM, was found to support students and provide targeted support services for students from equity group backgrounds. The inclusive and accessible learning environment for a diverse student body from a range of equity backgrounds was evident from the analysis, as was the overall satisfaction of first-year students who undertook the FYM and BM. However, there are also challenges of BM for equity group students, related to its demanding pace and inflexibility. The opportunities to enhance student

success are highlighted in the next theme through the exploration of all the challenges experienced and reported by the participants.

### ***Theme 3: University Practices to Further Enhance the BM for Student Success***

Insights into the challenges of the FYE were communicated by the participants in the context of BM learning and teaching. These challenges formed opportunities that the participants felt could improve the BM and lead to enhanced student success. The intensity of BM was a major challenge raised by participants, with multiple impacts on student success, personal wellbeing, and work commitments. Concerns for learning gain and knowledge retention through BM learning, the consistent application of BM for all course years and the redesign of group work for BM learning, were also reported as potential opportunities to improve the educational reform and enhance student success in future.

#### **Understanding the Influences of BM Intensity on Students and their Success**

The challenging demands of BM and the impact on student success were communicated by the participants. All 13 participants, representing first-year students who studied in the IBG and SBG groups, commented on the challenges of the intensity of BM. Nine participants provided descriptions of their learner experiences with BM delivery, including “really stressful” (STU\_05), “you feel so rushed” (STU\_09), and that students are “going through content at incredible speed” (STU\_10). One participant specifically commented that there was “not enough contact” (STU\_08). One participant represented this theme when they commented, “I understood the pros of it, and you recognise what needs to change, which is it’s very fast-paced and very hard to catch up on work” (STU\_10). Another participant from this group highlighted two perspectives on the intensity of BM: “I really like it, it works well for me, but there have been times

where it's just been incredibly stressful because everything packed into such a small amount of time" (STU\_02).

Two participants commented that the intensive delivery of BM impacted their ability to work, with STU\_04 specifically reporting that "if I'm going to be doing intensive study like block model I can't work", further reporting that this is due to the block unit being "so short you have to pack so much in such a short amount of time that the rest of your life gets put on hold". STU\_12 highlighted their challenges with working while studying in the intensive BM's scheduling structure and the impact on their employer when they commented:

I did struggle a little bit and that's kind of followed me through the full two and a half years, where there's been the expectation that I'll put my life on hold to meet the expectations of the unit, which was never going to happen. So I just had to make do. I even had, at one stage, my boss saying, 'why are you taking so much time off work?' I'm like, 'well, uni's set this expectation'. I've been lucky. I got approved to get study leave throughout my course ... a perk of working for Defence. However, at times it just wasn't enough. My family and my work supported me. But I do think the uni probably could have supported a bit more.

Two TMG participants also commented on the intensity of BM that they experienced in their later year studies when the new delivery mode was implemented by the University throughout all undergraduate courses. One TMG participant compared study modes when they stated the following:

I feel less stressed doing the block mode now. But it almost feels like cheating sometimes because it is significantly easier, I think. I definitely look back and

think my first year; maybe I was much more stressed, and working a lot harder to get those results. (STU\_13)

This response captures the experience of studying one unit at a time in BM in later years of an undergraduate course. The participant has had the experience of learning in both traditional and block learning modes, is able to compare the modes, and reflects that they felt less stressed in BM compared to studying four units at a time.

### *Addressing Student Concerns About the Intensity of BM Learning*

Ten participants expressed their concerns related to their experiences learning in BM. Their concerns were described as being able to “remember” (STU\_04) and “retain” (STU\_05) information and knowledge in the intensive BM delivery. One participant specifically reported that “you ask me right now what exactly I remember from that one subject, I don’t, and that, I think, is a fundamental problem with the block mode. It’s not cemented in ... it really is just about learning the system” (STU\_08). The concern for knowledge retention was highlighted by STU\_04, who responded that the “four weeks to learn anatomy and physiology was not enough to retain the information.” This concern regarding knowledge retention, and the implication for graduates in the workplace, was acknowledged by STU\_05 when they reported that:

I’m studying nursing ... biology, chemistry, physics ... within three weeks. It’s not even four weeks. The fourth week you’ve got one exam. You’ve got all this knowledge and content that you have to put in all at once, and I don’t retain the information ... I’m not saying ultimately get rid of the entire block method; I’m just saying reconsider it for subjects that are harder, that will take a long time for us. We need time to retain the information, to get to know it ... sometimes you have to connect the dots, especially when you’re in medicine or in healthcare.

And if you don't know how they connect, you're just learning what it is. For example, medication, right? If two medications contradict each other and you give that to your patient, big issue right there.

Another perspective on the concern students had for their knowledge acquisition and knowledge retention was provided by STU\_13, who was a TMG student who experienced BM learning in later year studies, when they stated that "I don't think I'm learning as much in the long term ... there's no time for it to be ingrained in you." Similarly, STU\_14 was a TMG student who also experienced BM in later years and commented that "there's been a couple of times where I just felt it was lacking depth ... and that's where a bit of frustration has come, and then that's when I might start missing a class." One participant also commented about the impact on their academic success due to the intensity of BM in a four-week delivery schedule: "it required a bit more time ... having to cram so much information in four weeks for a couple of the blocks didn't go too well, and I think that reflected in grades as well because we were so stressed" (STU\_17).

One TMG participant commented on BM units delivered over four weeks in later years of study, stating that they were the "biggest weakness" (STU\_14). This participant highlighted the challenge of intensive mode delivery to accommodate industry placement when they reported that a BM unit is often three weeks in duration to accommodate one week for placement. Their view of this four-week BM format to accommodate placement within the unit was that "three weeks on a subject doesn't feel very long ... it's great for your grades, but I don't know it's been great for actually learning all the time." This experience was not directly in relation to first-year studies but provided an insight into one of the challenges of the four-week BM unit structure in accommodating particular types of industry placements and learning for students.

### *Addressing Constraints for Equity Group Students in BM*

Six participants provided their perspectives that there were limitations for students from equity group backgrounds. The limitations of BM scheduling and intensity for SWD were comprehensively represented by a student who was also from a LSES background, who stated that “you can’t really do this part-time” (STU\_04). This participant described that they needed to “be able to work, and to be able to keep a roof over their heads, and there just isn’t enough time to be able to work and study.” The impact on this participant was clear when they reported “if I’m going to be doing intensive study like block model I can’t work.”

Another SWD participant, from a LSES background, highlighted the challenge of the BM pace for equity group students to utilise the study extension process (i.e., Special Consideration) available to them for support. This challenge was represented when the participant reported that “I was very reluctant to use any extensions or the services there because I knew they would actually hinder my study. It’s one of those things as well, there was very little flexibility around it” (STU\_10).

The impact of absenteeism on students from equity group backgrounds affected practical learning activities. When a practical BM class was missed, STU\_10 described the issue for students as not related to what they can “actually do to make up, it’s the actual resources itself” that they’ve missed from the practical activities in class. One student, not from an equity group background, supported these statements made by equity group students when they further reported that in BM “you cannot miss one, because one day is one week ... it would always be that one subject I missed was the one the exam was on” (STU\_08), which can impact student retention.

### **More Consistent Application of BM Teaching**

Nine participants responded that improvements can be made for a consistent implementation of BM teaching within first-year units within the FYC, and for subsequent course years in the DBCs. One SBG participant described this theme when they commented on the need for a “structured teaching style that is consistent, and that is expected” (STU\_01). STU\_14, who commenced in the TMG but experienced BM in later years of their course, commented on “teaching approaches” and their BM experience that meant they sometimes “felt unsure about the quality” of their classes. Another participant specifically highlighted their BM student experience beyond first-year study when they commented that their teachers “were expecting us to do the traditional model’s amount of learning and amount of work and knowledge in the condensed timeframe” (STU\_04).

STU\_15 highlighted their experience of inconsistencies in assessment approaches when they stated there were “unclear expectations when it comes to assessments”. In the context of the FYM and how first-year BM units connect through all years of study in course plans, STU\_09 specifically commented that they needed “more guidance on how to choose your majors and minors”. This participant reported that they “felt that I was left in the dark there and it took me quite a while to work it all out” and without the right information explained this student “didn’t understand until it was almost halfway through year two that I wasn’t following a direct path, and it was too late then” (STU\_09).

### **Re-Designing Group Work for BM Learning**

Four participants commented on the challenges of undertaking group work in the BM. STU\_08 reported that one of the challenges for group work was the added intensity



and time pressure of BM: “I strongly recommend that it is looked into – the group work ... I think it’s also the intensity of the block mode that makes the anxiety. There’s not enough time for the icebreaking moments.” Another participant commented that group work has not been “set up right in block mode ... it’s harder to be able to get your groups to work well together, especially when they were thrown in for a short space of time” (STU\_12). Fairness of group work for individual students was commented on specifically by STU\_05, who responded that “there’s always someone who hasn’t participated”, which leaves the work to others in the group while the non-participating student receives the benefit of a study mark.

Inconsistency in approaches to how group work is facilitated in BM was also reported as one of the issues, as highlighted by STU\_12, who commented that “every teacher has their own idea of how groups should be made, so there’s no consistency ... I felt really let down by group work in a lot of situations.” One participant detailed the impact of group work on student success where students have no peer connections and are grouped together by default, that is, being “left out” (STU\_16) or “auto-assign” (STU\_12):

I can say almost 90% of the time their group presentation is not as good as any other because these people they’re not only left over, they don’t even know each other. You need to put them with other people who are going to ask them questions and be interactive with them to make the project work. ... I always remember because [it was] always happening over and over again. And most of the time even that’s actually a new problem, most of the time these people wouldn’t even show up for the presentations, and you find just one student showing up by himself and all his teammates are just not there. It’s very sad. So

I think that's something that maybe if the University could do something about it would be very, very helpful, especially for these students. (STU\_16)

One participant suggested a solution for group work in BM from their lived experience. STU\_08 commented that the University should introduce a block module in the first year to guide students on the digital tools available to establish a work group and learn how to “engage together ... and how to work with teams”. This participant also highlighted the positive learning outcomes that effective group work activities can have on student development, including “how to do teamwork” and “how to motivate each other” from working on group activities.

### **Summary**

The results of the Study 3 qualitative analysis provided perspectives on the FYM and BM from the lived experiences of IBG and SBG first-year students. Comparative experiences were provided by some TMG first-year students, and the results were enriched by participants who had studied in both block and traditional modes of education. The results indicated that students were satisfied with their academic success through learning in the FYM and BM, and that they felt supported in their learning journey in and through their undergraduate course. Focused learning in BM, engaged teachers, and the relationships formed with teaching staff, were highlighted by participants as being influential to their student success. Effective first-year student support received both inside and outside the classroom was also a major influence, with students from equity groups expressing that the educational reform had mostly created a very inclusive learning environment. Areas for the University to enhance the BM were clearly articulated by participants from their lived experiences to enhance student success.

## **Discussion**

The previous section presented the results of the Study 3 analysis of qualitative data collected through interviews with students from the University, and detailed the key themes that were identified from the data. The following discussion presents the interpretation of the data and connections between the key themes and the research aims in light of the relevant literature.

### ***Student Success Factors within BM Learning and Teaching***

The analysis revealed that learning gain, academic achievement, teacher engagement and support were the essential factors for first-year students to succeed. This finding highlights the alignment required between an individual student's learning outcomes and engaged and effective teaching practices to enable student success. In the context of BM learning and teaching, the BM's small class learning environment was emphasised as an enabler for students to gain improved access to teaching staff and engage directly to establish a constructive relationship beneficial to learning. The results revealed that the relationships teachers formed with students through engagement in small class learning environments had contributed to the success of first-year students.

Previous literature reinforced that a variety of complex individual student factors can influence a student's learning gain and academic achievement, including intelligence, motivation to achieve, self-determination, and the development of adaptive learner strategies (Busato et al., 2000; Naude et al., 2016; Schneider & Preckel, 2017). Effective teaching practices including teacher engagement and support are therefore required to promote student engagement and success (Delaney, et al., 2010), particularly given the shortened and intensive BM delivery format. For students from equity group backgrounds, multi-faceted initiatives, including teacher engagement, are needed to

provide effective support for these students to succeed in HE (Li & Carroll, 2020). Qualitative findings into the attributes of high-quality intensive courses, reported by Scott (2003), highlighted commonalities with the Study 3 outcomes. Students, who undertook intensive mode learning in Scott's study, identified the attributes of engaged teachers they perceived to be essential to a high-quality intensive course. Those attributes included teacher enthusiasm, passion for the subject, good communication to stay connected with the learning experience of students, a willingness to learn from and consult with students, and showing that they cared for students. The study also found that particular teaching methods were essential for high-quality intensive courses, providing further alignment with the findings of Study 3. These methods included active learning, classroom interaction and discussion, class size and student-teacher relationships, and the need for teachers to use appropriate non-traditional education practices for intensive mode courses.

At the University, the small classes established to deliver BM learning and teaching and more non-traditional practices for teacher engagement and support may have been conducive to enhancing student success. The literature indicates that intensive mode learning environments that promote interactive learning with frequent teacher feedback can benefit student retention and reduce drop-out rates between first and second-year studies (Cuseo, 2007). Gibbs (2010) reported that education outcomes could be influenced by both class size and student engagement. The Study 3 findings align with Mitchell and Brodmerkel's (2021) critical review of published papers on highly intensive teaching in HE and the benefits of intensive delivery modes. Relevant to Study 3 are the benefits they reported for increased student engagement and learning due to different types of learning activities other than traditional lecture methods (used previously for knowledge transfer or transmission) (Connell, 2019; Scott, 2003). There

were also benefits for students of being able to engage in the subject material over an extended time without the competing demands of other subjects.

Achievement motivation has been positively associated with academic success (Busato et al., 2000) and may have been, in part, what contributed to the level of academic achievement that the participants at the University reported they were satisfied with in FYM and BM. The self-motivation of University participants may have helped promote their engaged learning practice and their relationship with their teachers. Mitchell and Brodmerkel (2021) highlighted that intensive modes of learning, such as BM, may be “more suitable to students who are highly motivated to learn the subject material” (p. 13). They reported that motivated students are considered ready to meet the required class attendance rate and undertake the preparatory work necessary for intensively delivered BM subjects to engage with their teachers, peers, and the presented content. While students in Study 3 did not discuss self-motivation, the researcher observed that the interview participants were modest in their self-reflections when discussing their own success. They did not express their self-motivation for achievement nor their engagement as learners as contributing factors to their student success. However, these individual characteristics would have been vital to the participants’ learning in the University’s newly formed and implemented FYM and BM, and to their success as first-year undergraduate students.

Study 3 found that learning in a small class with engaged teachers enabled relationships to be built between teachers and students. This finding is in line with the literature, which highlights that both academic and social support in first-year HE are required to promote student retention outcomes (Tinto, 2009). A previous research case study at the University, by Jackson et al. (2022), reported that collaborative relationships were formed between students and teachers through BM learning. The

study found improved relationships due to small classes and intensive engagement simulating a professional practice of working together, compared to traditional modes of learning via lectures. Study 3 found that this engagement and relationship building with teachers contributed to the improved academic outcomes and levels of satisfaction that students reported from their FYE of the FYM and BM.

### ***Holistic Approaches to Student-Centred Education Promoting Student Success***

The Study 3 analysis revealed that the educational reform re-focused first-year education for students with a more holistic approach to promote student success. The results highlighted the positive influences on student success from the changes to first-year education. These influences included the BM's design to provide focused learning and assessment for students through one unit at a time, the quality of university support services, opportunities for growth through co/extra-curricular programs, and inclusive learning and teaching approaches. In addition, Study 3 found that this holistic approach to first-year education contributed to the learner preparedness of students for future course years and to high levels of satisfaction with their FYE.

The findings revealed that the University's BM design enabled students to achieve greater success through focused learning and assessment by undertaking one at a time. STU\_03 reinforced this outcome when they commented that, during their first year, they felt that they "worked better at knowing, focusing on one thing at a time". Goode et al. (2022) affirmed three pedagogical elements as important to the success of immersive learning formats similar to the BM: focused curricula, active learning experiences, and guided learning. Focused learning and assessment were reported as positive consequences of intensive mode courses in an earlier research study by Scott (2003). Study 3 indicated that, in the ideal learning environment, students could focus without interruption, immerse themselves in the subject matter, prioritise their learning

(i.e., not stretch themselves across multiple units at once), and could manage their study commitments and time better with a block schedule. Students also reported that they felt the content modified for an intensive unit enabled them to concentrate on content that mattered the most and that the intensity became advantageous to having a more memorable learning experience, compared to the longer traditional learning mode. In this regard, STU\_04 felt that one unit at a time “really helped me focus on that particular unit and get as much out of it as I possibly could within the timeframe.”

Study 3 found that students from equity group backgrounds experienced “confidence” (STU\_15) during their FYE as a result of inclusive and “accessible” (STU\_15) learning and teaching. These students felt that their relationship with their teachers was one of the aspects that made their FYE feel inclusive, and described teaching staff as “approachable” (STU\_02). One student, who commenced first-year in the TMG and then changed courses and later joined the SBG, gave a comparative experience of the delivery modes and teaching, commenting that the BM teachers were more “willing to teach you more closely and put in more effort” (STU\_11). Walker-Gibbs et al. (2019) discussed the importance of connection and inclusivity for the success of first-year university students from equity group backgrounds. These researchers found that disconnects in the relationships between teachers and first-year students from LSES backgrounds can contribute to the adverse views that some students may develop in relation to failure, success, and not belonging in HE. One Study 3 participant reported that the University’s Access Plan process provided an effective “bridge” (STU\_17) between students and teachers for them to communicate and understand learning support needs.

The importance of establishing inclusive pedagogical environments for students from equity group backgrounds, that build trust, nurture belonging and give students

confidence, was highlighted in the key findings of another research study on inclusive approaches for capability, belonging, and equity in HE (Burke et al., 2016). Burke et al. reported that academic confidence for equity group students significantly impacted their academic success. Student relationships with their teachers were also considered equally connected with feelings of belonging in HE. Any behaviours in the student-teacher learning environment that evoked a lack of engagement were reported by teachers and students as damaging to the pedagogical relationship and the capabilities that promote success for equity group students. Study 3 participants indicated their satisfaction with the capability and inclusive practices of their teaching staff and described their experiences as “respectful” (STU\_17) and “helpful” (STU\_02). One TMG student compared the experience of traditional mode with BM learning when they expressed that they were able to get “more from the classes” (STU\_11) in BM through closer interaction with the teachers in the small class environment.

The study 3 findings highlighted aspects of the FYM and BM learning and teaching that enabled first-year success for students from equity group backgrounds. Those aspects included a small class learning environment, which increased the opportunity for inclusion in learning and improved access to teaching staff. Furthermore, the capability of teachers to support students with accessibility needs and learning adjustments, along with the accessible redesign of BM units and associated resources, helped to reduce the students’ costs of studying.

The combined influence of the benefits of focused learning and assessment, and a more inclusive learning environment, may have contributed to the student confidence and readiness for future course years that Study 3 participants reported. A positive FYE is considered vital for students to engage in study and successfully progress through their course of study (Birbeck et al., 2021). The BM removed the need for first-year



students to manage multiple units with competing learning and assessment tasks. This manageable student workload reduced their cognitive demands (Richmond et al., 2015), allowing them to focus on one BM unit at a time. This benefit was reinforced by STU\_16, who reported that the BM increased their success as a student as they had “only one subject ... to concentrate on”. This approach to concentrated learning gave students greater confidence as learners, which was aided by early and frequent assessment and feedback within the BM’s four-week delivery format (Bovill et al., 2011; Pitkethly & Prosser, 2001; Weldon, 2022).

This effect of focused learning in BM, with regular feedback, may have influenced the reports from participants that their “grades are better now with the block”, as reported by STU\_13, who undertook traditional mode in first-year study and BM in future years of their course. Improved academic success outcomes in the intensive mode may have ultimately enhanced their confidence in learning, their empowerment, and their preparedness for future years of study (Bovill et al., 2011; Goode et al., 2022; Samarawickrema & Cleary, 2021). STU\_02 commented that their FYE “prepared me well for the workload” in future course years. The positive commentaries by participants, regarding their confidence and preparedness for subsequent years of study, indicate that the FYM and BM as a first-year curriculum reform were a key driver for improving student success from first year onwards (Bovill et al., 2011).

Outside the classroom, the Study 3 findings highlighted the importance of effective university support services and an integrated range of co/extra-curricular programs to support first-year BM students. Connecting academic support with the daily learning needs of first-year students and the subjects they are learning was also reported by Tinto (2009) as being an effective way for universities to align professional and academic staff and better support students with succeeding in their classroom learning. Study 3

participants communicated the value of a holistic range of student support services in the FYM and BM, which functioned beyond the support they received from their teachers. These holistic support services and programs were acknowledged by the participants as essential to their success as first-year students.

The Study 3 findings revealed that co-curricular and extra-curricular programs and more personalised student supports (e.g., counselling) were encompassed within the overall FYM and were felt to be an essential element of a successful FYE for students. Co-curricular (e.g., academic support) and extra-curricular programs (e.g., workplace internships, volunteering, and leadership programs) contribute to a transformative learning process and are known to benefit student learning outcomes, students' careers post-study, wider society, the economy, and universities (Gibbs, 2010; van der Meer et al., 2019). STU\_01, who was highly engaged in university life, commented on their experiences when they stated that the academic support/development available to them was "phenomenal" and that they were able to put time into leadership roles for "upskilling my personal skills as well". In contrast, STU\_02 recommended that "supplementary activities ... need to be more relevant to the content" of BM units to be of value. High-impact teaching and learning strategies, such as those reported by the Study 3 participants, provide students with improved levels of learning success, integrated learning through the application of their knowledge in real-world settings, and provide equitable opportunities and outcomes for all students (American Association of Colleges and Universities (AAC&U), 2023; Bray et al., 2018).

The Study 3 findings are also reinforced by previous research, which indicated that intensive courses can sometimes yield superior learning outcomes and more rewarding learning experiences than traditional learning modes (Scott, 2003; Scott & Conrad, 1992). The Study 3 participants expressed that their positive satisfaction with the FYM

and BM was due to their academic outcomes, the support received to achieve those outcomes, and their overall FYE. Students in the FYM and BM were satisfied with intensive learning, which is a finding consistent with the literature on block or intensive courses in varying formats (Goode et al., 2022; Kucsera & Zimmaro, 2010; McCluskey et al., 2019; Richmond et al., 2015; Turner et al., 2021).

Most Study 3 participants acknowledged the holistic and student-centred approach to first-year education as having the factors reported above that contributed to their overall student success in the FYM and BM. These factors included focused learning and assessment, quality of university support services, opportunities for growth through co/extra-curricular programs, and inclusive learning and teaching approaches. As a result of these factors, students expressed a high level of satisfaction with their FYE and felt prepared for future course years. These Study 3 findings indicate that the University diverted and/or increased the investment of resources to first-year education, a trend for Australian universities also reported in the literature (Larkin et al., 2016), as a mechanism to improve the quality of the FYE, which consequently enhances student success.

### ***Perceived Constraints of the BM on Student Success***

The Study 3 analysis revealed that the participants reported constraints related to the BM's intensity that they perceived to adversely influence their success. The associated constraints of BM's intensity included stress for students that impacted their wellbeing, challenges for learning unit content in a rushed environment, and complexity for group work activities in BM. The Study 3 analysis also revealed some inconsistencies in the BM's application in first-year studies and later course years.

The Study 3 participants expressed specific attributes associated with BM intensity that they considered harmful to student wellbeing. Several participants described those attributes as the intensive four-week block schedule, which offered “little flexibility” (STU\_10), difficulty catching up from absences in a four-week block, which left students feeling “so far behind”, and having to “cram everything in, in such a short time” (STU\_04) if they became unwell during a block. In addition, Study 3 participants felt an overall feeling at times that their learning was “so rushed in the block mode” (STU\_09). The impacts of these attributes on student wellbeing included reports of participants feeling “stressed” (STU\_15) about their studies, which was made more challenging for some by the competing demands of “juggling work and uni” (STU\_12), in order to have the essential paid employment they required while studying.

First-year student wellbeing is complex, and the influences on it may be student-related or institution-related. However, Study 3 participants indicated that they experienced stress due to the BM pace and intensity. Stress is not uncommon for first-year students in any mode of delivery, but it is a complex topic with varying definitions (Maymon & Hall, 2021). For example, a UK university (McKie, 2022) reported that the traditional mode also created stress for students with detrimental impacts on their mental health due to the need to manage revision for multiple exams in the semester format. Furthermore, in comparison to the traditional mode, the introduction of a five-week BM for undergraduate students at the university was reported as being advantageous for students from equity group backgrounds as it enabled them to focus on one unit at a time. However, as found at this University, the increased intensity of studying one unit at a time can be a major negative influence on some students’ wellbeing, despite the advantages of focused BM learning.

While a level of stress can sometimes be motivationally beneficial for first-year students, the transition to university can aggravate existing pressures and impact their academic success and retention in study (Maymon & Hall, 2021). An earlier Australian study on first-year student health and wellbeing, by Wrench et al. (2013), found that individual and institutional factors impact students. The researchers' qualitative findings highlighted the need for students to manage their time and competing demands, and the need for institutions to create the necessary social conditions to mitigate further impacts on student wellbeing. Wrench et al. (2013) reported that students typically accept individual responsibility for their health and wellbeing. However, the transition to university requires institutions to ensure social networks and peer support are facilitated to assist students in building connections and a sense of community to mitigate any adverse impacts on wellbeing.

Study 3 participants may have had limited opportunities to build these social networks and peer communities due to the University's particular BM design of one unit at a time. This design of units taught over a four-week BM schedule may also have resulted in students attending classes for less time on campus each week and forced a change to their class groups every four weeks. Ultimately, these characteristics may have impacted how much incidental time students spent on campus each week outside of class to connect with peers and forge a sense of belonging with their cohort. These impacts suggest a potential limitation of the BM's intensive design that, in parallel with student transition to HE, has a multiplier effect on student wellbeing in the first year. The changed pattern of on-campus attendance and engagement was affirmed by STU\_17, who conveyed that "block mode makes it hard because you're staggered on campus so you're there for your three hours and then you jet. So, you don't really experience the full university."

Study 3 participants also reported additional declines of on-campus time since their first year of study which has occurred due to BM changes made since the COVID-19 pandemic. Before COVID-19, first-year students at the University attended BM classes on campus which therefore associates the positive learning experiences they reported in this study with an in-person study mode. The importance of being taught via BM in person was highlighted by STU\_13 (a TMG participant), who undertook BM in the later years of their course and commented that their success was more about “being on campus, more so than the block mode”. This participant was able to reflect on their experience of both traditional mode and BM since the University’s move away from fully in-person BM classes. They reflected on being unable to “work with your peers on campus, in the library, over a prolonged period of time ... do group work together ... you don’t have the same relationships with your peers” because certain classes are now online.

Other Study 3 IBG and SBG participants commented on their experiences of BM delivered in an online mode in the later years of their courses due to the COVID-19 pandemic (at the time this research was undertaken). One participant reported that an online three-hour block class “can be hard to digest, especially if there’s a lot of talking” (STU\_15) by the teacher. Another TMG participant gave a comparative reflection of their experiences of learning in different modes of study and commented that undertaking BM units delivered online (in their later course years) felt “too awkward to intrude and put my hand up” (STU\_14) when compared to their on-campus learning experience. These insights from these findings indicate that more understanding is needed on the impact to students of BM being delivered via online modes as a result of COVID-19.

Attempting to balance the competing demands of life, work, and the rigid BM schedule, were reported as key issues for students that could also impact student wellbeing. Reviewing empirical research studies related to face-to-face intensive delivery from 2006 to 2020, Mitchell and Brodmerkel (2021) reported that negative student concerns can sometimes surround intensive mode learning. These concerns included a student's inability to fit classes and time for studying into their work-life balance and concerns for suboptimal learning. Suboptimal learning concerns are varied and can be associated with students not preparing sufficiently before class, students not maintaining adequate attention due to intensive mode design issues, and students being unable to maintain an adequate commitment to study outside of scheduled classes. These insights highlight the importance of first-year students being aware of, and understanding, the focus, commitment and attention required to be successful in BM study, and to balance competing life and work demands and mitigate study absences.

Students who are better equipped with the knowledge of what is required to be effective learners in BM, before they commence BM learning, may be better prepared and informed to manage the competing demands that can impact their wellbeing. These impacts include the financial distress that students may experience from failing units if they are unprepared. STU\_08 highlighted the financial implications and importance of passing every unit and that in BM "it needs to be clear at the beginning". In a study undertaken by Crispin et al. (2016), exploring student perceptions of their intensive postgraduate business education, the findings indicated that students lacked awareness and detailed information on what intensive mode units involved. Students in this study reported that they were "mentally unprepared for this mode of study" (Crispin et al., 2016, p. 530) and that the intensive mode of study increased the pressure on work and life commitments. Clearer advice to students on time management for intensive mode

learning was a recommendation of the study, as were university processes that support periods of absence from study. One Study 3 participant discussed how their teachers gave reminders to “make sure you’re focusing” (STU\_05). This form of coaching students to “keep pace” (Kops, 2012, p. 53), and to regularly remind students to not over-commit outside of study, was found to be an effective strategy for teachers in a US study of strategies to assist students with their time management during intensive courses (Kops, 2012).

Connected to the reported constraints of BM intensity, are the concerns that Study 3 participants raised regarding their learning when unit content felt rushed. The participants expressed their apprehensions about keeping up, retaining new knowledge, and applying that knowledge in future. This finding was emphasised by those participants intending to work in clinical settings (e.g., nursing). Four Study 3 participants were undertaking a nursing course via BM and spoke specifically at interview on how rushed, “intense” (STU-05) and “too fast” (STU\_10) the content was, and that they had limited ability to catch up. Previous research studies have also shown that the adjustment to intensive mode learning can be difficult and that learning in this mode can create fatigue, which undermines student learning and ability to concentrate and retain learning (Mitchell & Brodmerkel, 2021; Murray et al., 2020; Welsh, 2012). Welsh’s (2012) Australian study, comparing traditional and intensive modes for engineering students, found that the impact of fatigue is concerning in intensive mode learning when complex concepts are introduced in the final stages of an intensive program and the integration of learning is required. These students cited insufficient reflection time as an issue during their intensive mode course. In Study 3, participants potentially felt rushed in class if too much information was presented and there was insufficient reflection to interrogate the new learning themselves.



For the Study 3 participants, particularly those studying technical content such as nursing, there may have been a range of factors that led to them feeling that they could not keep up with their learning or retain knowledge. Sufficient time for reflection on learning content may have been limited if students were not adequately prepared to undertake BM or were not engaged in their learning (Ho & Polonsky, 2009). One of the Study 3 participants expressed their concern for students from equity groups being “way more tired” (STU\_05) than others due to the competing demands with their employment that enabled them to cover the costs of their study. Investigating first-year students enrolled in BM delivery for osteopathy studies, Tripodi et al. (2020) found that student engagement in content-heavy BM subjects could be difficult if the units and learning activities were incorrectly designed in the transition from traditional mode. In their study, Tripodi et al. reported that the introduction of BM had significantly reduced anatomy laboratory time per subject and signalled the need for universities to redesign units to focus learners and increase their time on task both in/out of the classroom.

An added complexity for the Study 3 participants may be related to the challenges they reported for group work regarding the facilitation of group activities by teachers and equality issues within groups for participation and assessment. STU\_12 represented the views of many students regarding group work when they reported that “I don’t think it’s been set up right in Block Mode.” This finding may imply that group work may not have been redesigned effectively for the intensity of BM units or to support a diverse student population of learners, but further research is needed to investigate this claim.

The Study 3 results show that participants’ perceived constraints on student success stem from two factors that impact student success. The first factor is the intensity of BM and the consequences for students that stem from the four-week unit design. The second factor is that the inconsistency in the application of BM has consequences for student

success and the FYE. Managing student reservations and perceived BM constraints in the context of this University's model is critical. BM is the only teaching format offered to undergraduate students, with no option to choose traditional mode if they prefer it for learning and learner confidence or as a way of managing competing demands outside of study. Impacts on student success from a lack of addressing student constraints may have significant impacts on the continued success of first-year undergraduate students and the BM reform over time.

### **Summary**

Study 3 identified key factors in the FYM and BM educational reform that were effective in improving the academic success, satisfaction, and retention of first-year undergraduate students. The findings also highlighted those factors as they influence outcomes for students from equity group backgrounds. These key factors were established via the perspectives of students and their lived experiences, and included: (a) focused learning and assessment; (b) effective teacher engagement, relationships and support; (c) university support services and programs; (d) confidence and preparedness for future course years; (e) inclusive and accessible education; and (f) satisfaction as a first-year student. Study 3 evidenced that BM's intensive format improved student focus on their learning in a supportive and student-centred learning environment that built their confidence through greater academic success. Study 3 also evidenced that BM enabled students to establish and nurture effective relationships with their teachers in small class learning environments, helping them to grow their confidence and sense of belonging, which, in turn, contributed to their success as first-year students.

These Study 3 findings evidenced the most significant characteristics of the BM that promoted student success for a diverse student cohort and highlighted the positive

learning experiences of first-year students. These positive experiences included the effective teaching practices that fostered relationships with students and provided them with support, and the University support services and programs made available to them to help them succeed. However, several students also reported challenges associated with the BM that they perceived as constraints to their success. These constraints included the intensity and pace of BM including those constraints for some students from equity group backgrounds, consistency issues related to the application of BM teaching, and design issues related to the transition of group work for the BM format.

Chapter Seven evaluates the findings from all three studies of the research project. The chapter presents an integration of these findings from Study 1, Study 2 and Study 3 to represent and discuss major findings in relation to the overall research aim to ‘explore the overall phenomena of the FYM and BM across multiple academic disciplines and student equity groups’. Additionally, the limitations of this research and the reflections of the researcher are presented and discussed.

## **Chapter Seven: Major Findings, Limitations and Reflections of the Researcher**

This chapter presents the major findings of this research, limitations of the research, and the reflections of the researcher. The discussion in this chapter will detail the major findings of the research in response to the overall research aim, which was to ‘explore the overall phenomena of the FYM and BM across multiple academic disciplines and student equity groups’. The overall research aim was investigated by examining the research sub-aims through a mixed methods research design that contributed quantitative and qualitative data from three studies, in order to strengthen the reliability of data and the validity of the major findings (Bamberger, 2012).

An integration approach was used to evaluate and interpret the findings of the three studies and consider how the findings were related to each other and for meaning to be made (Fetters & Molina-Azorin, 2017). Both congruences and contrasts emerged when the integrated findings of the studies were compared. This emergence within the mixed methods provided deeper findings and insights to formulate the major implications presented in this chapter that address the sub-aims and overall aim of the research.

### **Major Findings**

The discussion of the major findings commences with the comparison of the essential factors found for students to be successful, which were generated from the integrated findings from the qualitative studies (Study 2 and Study 3). The congruent factors between staff and student participants highlight the essential factors for student success from their perspectives. The presentation of these factors is an important foundation for consideration of the major findings within the context of the University. Following this first section is a discussion on the efficacy of the whole-of-institution educational reform for student success. These first two major findings frame the

subsequent discussion in this chapter on each of the research aims and provide further context on the extent and complexity of the change undertaken at the University that influenced the outcomes of this research.

### ***Congruent Factors for Student Success***

Studies 2 and 3 explored the concept of student success, which comprised academic success, student satisfaction, and student retention. The integrated findings of the qualitative studies revealed congruent factors for student success between staff and student perspectives. The congruent factors of academic achievement, teacher relationships, and teacher support, were evident, as were the differences between staff and student perspectives of student success factors. The congruent factors and each group's view of student success factors were reviewed in light of the relevant literature, which revealed characteristics associated with two learning and teaching practices that promote student success, as discussed below.

The Study 2 and Study 3 findings showed unique factors of importance for each group, generated from the different lived experiences. Student participants in Study 3 were clear and concise when describing the factors for their success. These factors were clearly articulated as the outcome of education (i.e., academic achievement) and what is required to achieve that outcome (i.e., teacher relationships and support). Study 3 found that teacher engagement, together with teacher support and teacher relationships are characteristics associated with effective learning and teaching practices (Delaney, et al., 2010; Willison, 2020).

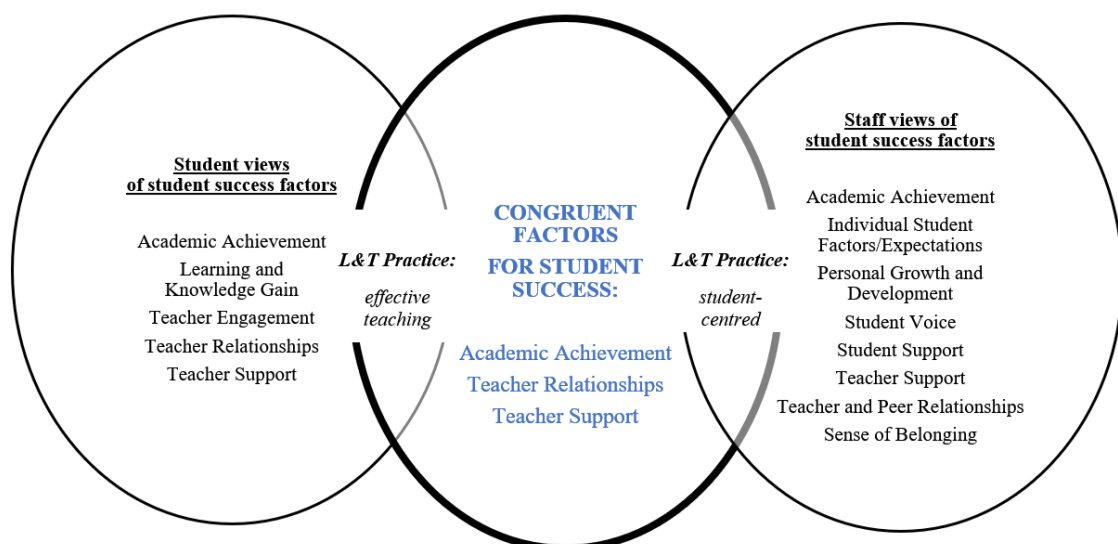
Staff participants in Study 2 articulated a greater number of factors regarding student success factors than student participants did in Study 3. This difference may be reflective of the staff's collective professional experience and wider professional

perspectives. These factors were academic achievement, individual student factors/expectations, personal growth and development, student voice, student support, teacher support, teacher and peer relationships, and a sense of belonging. Study 2 found that these student success factors revealed characteristics associated with student-centred learning and teaching practices. These characteristics include being learner focused, engaging, encouraging class collaboration, and empowering students to help build their sense of self-efficacy to academically achieve (Marín, 2022; Weimer, 2013). Staff were acutely sensitive to the individual student factors and expectations that shape student success. This sensitivity was associated with the Study 2 findings that student success is “complex” (STF\_11) and that “different factors” (STF\_11) apply for each student’s learning “journey” (STF\_02).

The unique factors, and the contrasts between the two sets of factors, provide a deeper articulation of the concept of student success. Each group’s view of student success factors, congruent factors, and their association with learning and teaching practices, is illustrated in Figure 41 below.

**Figure 41**

*Congruent Factors and Learning and Teaching (L&T) Practices for Student Success*



There were also differences identified between staff and student responses when examining the integrated findings related to student success factors. For example, staff participants in Study 2 reported that students need a “sense of belonging” (STF\_03) to be successful. Descriptions of a sense of belonging included teachers “knowing” (STF\_7) students and the capacity for students to foster “relationships” (STF\_03) with teachers. In comparison, students in Study 3 provided a simpler description of teacher “relationships” (STU\_13) that gave students signals that they belonged, as represented by STU\_07 when they conveyed “having that relationship ... really helped me to actually see that they care.” These descriptions of ‘teacher relationship’ and ‘sense of belonging’ demonstrated a connection between the overlapping but distinct factors from the two participant groups.

Students were evidently clear on the outcomes they expect if they are to be successful in first-year education. The active role of both students and teachers as partners in learning and teaching is key to their success (Kahn & Anderson, 2019). The congruent factors and associated convergent characteristics discussed in this section illuminate what is essential to shaping the learning and teaching partnership for student success, acknowledging that new dimensions of student success are continually emerging (Kuh et al., 2006). The factors for student success presented in this section provide an important foundation, upon which the major findings in the following sections expand in the context of the educational reform.

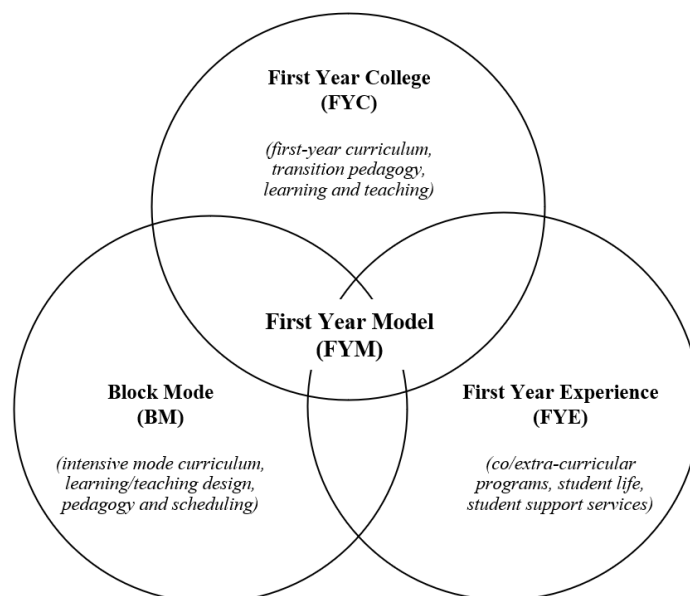
### ***Efficacy of the Whole-of-Institution Educational Reform for Student Success***

Study 2 findings evidenced that a whole-of-institution change was undertaken to facilitate the first year undergraduate educational reform. The FYM was produced from the educational reform and described by one of the staff participants as a “Hydra with lots of heads” (STF\_08). The FYM comprised three different elements that each

supported the focus of the institution’s effort to propagate first-year student success. These elements were the establishment of a FYC, the introduction of BM, and the enhancement to the FYE. The FYC led the learning and teaching change from the “driver’s seat” (STF\_04) and consolidated first-year units from every course and discipline within the one faculty. BM learning and teaching was introduced, and existing units modified for intensive mode delivery, with a “systemic approach” (STF\_09) across both academic and non-academic aspects of learning and teaching to enhance the FYE. These major pedagogical changes occurred simultaneously and contributed to the development of the FYM (see Figure 42). The impact that each change had on student success is discussed in the major findings for the sub-aims in the following sections.

**Figure 42**

*First-Year Model for Undergraduate Education*



Study 1 evidenced the efficacy of the educational reform, with data revealing improvements to first-year academic success. The introduction of the FYM and BM



increased pass grade percentages by 14pp and 16.77pp for the IBG and SBG, respectively, when compared to the TMG. The effectiveness of this change in the second year of implementation (i.e., SBG) increased success rates for the population above the HEI state total in 2019 (86.66%) and above the HEI national total for success rates in 2018 and 2019 (84.34% and 84.86%, respectively) (DESE, 2022). Staff participants (Study 2) described the process of change to achieve these results as a “massive transformation” (STF\_05) that changed course delivery and established the FYC with an “intentional culture” (STF\_07) to influence first-year student success and their educational experience.

The Study 1 findings of a FYM that comprised a multi-faceted educational reform being effective in improving student success was also reported in several other studies (Howe et al., 2019; McCluskey et al., 2018; Winchester et al., 2021). The literature also supports the view that the implementation of the new intensive BM delivery format renewed the focus on the quality of teaching and service to students (Weldon, 2022). The findings of this research associated with the FYM and BM’s impact and influence on each of the elements of student success (academic success, student satisfaction and student retention) are discussed in the following sections, grouped by each sub-aim.

#### ***Sub-aim 1: Aspects of the FYM and BM that Impacted Student Academic Success***

This section presents the major findings related to the research sub-aim that sought to ‘determine the aspects of the FYM and BM that have impacted academic success for first-year undergraduate students across multiple academic disciplines and student equity group cohorts, compared to the traditional mode’. The finding that students attained greater academic success is discussed first. This finding confirms that the overall impact of the FYM and BM on student academic success was found to be positive. This finding sets the context for the following sections that report on the

aspects that had strongest influence on student academic success. These aspects include student-centred approaches that promoted belonging and success, BM pedagogy that enabled students to focus on learning one unit at a time, and student engagement with active learning and teaching in small classes.

### **Students Achieved Greater Academic Success**

Improved student academic success outcomes, as a result of the FYM and BM, were evidenced in all three studies. Study 1 found that there was a significant overall positive effect on pass rates, study marks and grade results for the IBG (2018) and the SBG (2019), when compared to the TMG (2017), with varying levels of percentage increase for student academic success across the six different academic disciplines. These positive results, shown over consecutive years, revealed that the impact of the FYM and BM was not a single occurrence of a contemporary phenomenon. Study 1 also revealed that the improved student academic success results were consistent for the entire first-year population, as evidenced by the 10.95pp increase from the TMG to the SBG (DESE, 2022).

This finding of improved academic success is significant because it evidences the efficacy of the educational reform for student outcomes across a large student population and multiple academic disciplines. While the FYE is often viewed through an attrition lens, academic success rates have a critical influence on academic belonging, self-efficacy, and retention within university student study outcomes (Baik et al., 2019; Kahu et al., 2022). Students view passing subjects as one of the most important and essential factors for university success, followed by achieving good grades (Naylor, 2017). STU\_04 in the current study confirmed the connection between

academic success and the student experience when they stated that they were “quite satisfied because I had high grades”.

The quantitative results were supported by the findings from the qualitative studies. Study 2, with staff participants, confirmed that the intervention of the FYM and BM had an “enormous effect on academic outcomes for first-year students ... and the grades distribution as well” (STF\_12). Study 1 found a significant difference in grade distribution and the groups, with combined percentages for D and HD grades increasing consecutively from the TMG to the IBG and again to the SBG (33.3%, 37.3% and 47.1%, respectively). Study 3 student participants expressed that they were “able to get the grades” (STU\_04) they strived for and “achieve great results” (STU\_12), giving them the “confidence to continue” (STU\_08) and fully realise their sense of academic capability (Lizzio, 2006). Qualitative findings from staff and student perspectives confirmed the results of the quantitative analysis that the FYM and BM supported student academic success.

The academic success outcomes reflect the positive impact on students from equity group backgrounds due to the high proportion of these students included in the data (64%,  $n = 2,256$ ). Study 1 found that pass rates for SWD improved by 15.7pp, those from NESB by 19.5pp, those from LSES by 24.1pp, and those who were First Nations students by 24.2pp. The positive impact that academic success had on these student cohorts was reflected by STU\_17, who commented on their journey in and through first-year education. This student participant said that, at first, they considered their background as a “setback” to ever commencing HE but had decided to pursue a qualification, having received encouraging course advice and support from FYC staff that led to them achieving grades they “didn’t expect” and adding that they had a “very satisfied” FYE. One staff participant provided further insight on enabling student

success for those from equity group backgrounds when they spoke about changes to online learning and teaching spaces. STF\_12 commented that the design of the new online learning teaching spaces to support BM constituted “interventions for these equity groups” that would “benefit everyone”.

Study 1 found a significant statistical difference in grade distribution between the groups and students from equity group backgrounds, except for First Nations students. However, all equity groups experienced reductions in fail grade percentages between the TMG and the IBG, with fail grades subsequently reduced again in the SBG. The integrated findings of the educational reform evidence the efficacy of the FYM and BM as an institutional design that improved academic outcomes for students from equity group backgrounds, enhancing fairness and inclusion (Dodo-Balu, 2018).

The recounts from the lived experiences and perspectives of staff participants in Study 2, and student participants in Study 3, provided deeper insights to further understand the Study 1 findings that revealed students in the FYM and BM had improved academic success. The overall cohesive and consistent pattern of results indicated that the positive impact of the educational reform to successfully re-focus the University on student success and the FYE. In the next section, the student-centred approaches that enabled these academic success outcomes is discussed.

### **First-Year Student-Centred Approaches Promoted Belonging and Success**

The qualitative studies evidenced that student-centred approaches were implemented to develop first-year students’ sense of belonging and were focused on promoting academic success. Staff participants in Study 2 articulated that the University had developed a FYM that was “evidence-based and student-centred” (STF\_14) to place the “student first” (STF\_08). The student-centred approaches identified in Studies 2 and 3

included an “inclusive” (STF\_03) and “accessible” (STU\_15) learning environment, engaged teaching staff, and adequate support provided inside and outside the classroom to achieve academic success. The outcomes of these student-centred approaches, adopted for the FYM and the BM curriculum renewal, were described by staff participants in Study 2 as “truly transformative for students” (STF\_10) and the key for students to become “empowered” (STF\_10) in their learning journey. These qualitative findings were supported by the academic success indicator findings from Study 1. The mean mark between groups (for units) was improved for each consecutive group and reported as significant, resulting in an 8.14 mean mark increase from the TMG to the SBG.

Collectively, student-centred approaches promoted academic success through enhanced student relationships with teachers and University support staff to facilitate a sense of belonging. For example, student participants in Study 3 described the influences on their positive first-year learning experience from having “wonderful” (STU\_04) teachers that were a “really big part” (STU\_08) of helping them to succeed. STU\_10 recalled the best part of their FYE, highlighting the sense of belonging students developed, when they reported having a “good, professional relationship” with their teachers, who treated them “like peers” and made them feel “more respected” as adult student learners. Similarly, this participant also described the positive relationship with University support staff in co-curricular program areas that provided holistic support when they stated that they had “mentors that would just be really dedicated to helping people” (STU\_10) and gave students added comfort during their studies. These characteristics of the learning environment, that give students the feeling of support and legitimacy, have been connected with student engagement and effective learning (Coates, 2007). The findings from students in the TMG were consistent with those from

the FYM and BM students, who also reported that “having a good relationship” (STU\_07) with their teachers was essential to support their success.

### ***Interpersonal and Academic Belonging***

In addition, the overall finding that students achieved positive academic success outcomes supported by positive relationships with University staff outcomes suggests this enhanced their sense of academic belonging, capability, and self-efficacy in first-year education (Burke et al., 2016; Kahu et al., 2022). Therefore, the FYM and BM enhanced both interpersonal and academic belonging (Kahu et al., 2022). As confirmed in studies 2 and 3, this improved sense of overall belonging provided a critical connection for student engagement that consequently improved their experience, learning outcomes and development, to promote successful academic outcomes (Kahu & Nelson, 2018; Trowler, 2010). In their Australian study, which explored the complexity of first-year student belonging in HE, Kahu et al. (2022) also found that belonging was important for student success. Their study identified two influential aspects of student belonging. First, interpersonal belonging was found to be gradually built through the first year as students developed positive and deep relationships with teachers, University staff and their peers. Second, academic belonging was reported as significant for perseverance and critically influenced by student self-efficacy and academic success.

### ***Personalised Support for Students from Equity Group Backgrounds***

For students from equity group backgrounds, the student-centred approaches provided them with the personalised level of support needed to be successful learners. Staff participants in Study 2 provided insight into how personalised support for students was achieved. They reported the introduction of new transition pedagogy which

included “high-engagement teaching strategies that focus on the student as an individual, rather than just a number in a cohort” (STF\_02). These high-engagement teaching strategies facilitated a “personalised level of student support” and the opportunity to “engage more clearly with our students, knowing them a little bit better, knowing where we can help them” (STF\_02). Study 1 evidenced the positive impact these strategies had on academic success outcomes for students from equity backgrounds. Study 1 found that the mean mark for SWD in the TMG prior to the FYM and BM being introduced was 55.66, and that it improved to 67.24 for the SBG two years later. For students from NESBs, the improved pass rates spanned over 103 language backgrounds and the mean mark increased by 9.09 points from the TMB to the SBG. For the same group comparison, students from LSES backgrounds were found to have an increased mean mark of 11.74 and First Nations students had a 4.19 increased mean mark. While the educational reform was not intentionally designed for international students, this cohort also achieved positive improvements in their academic success outcomes. Study 1 found that international students had a 3.63 increased mean mark from the TMG to the SBG.

### ***Inclusive and Accessible Practices***

Student participants in Study 3 indicated their satisfaction with the capability of their teaching staff, their practices in inclusive and accessible education, and the University’s student-centred focus. One SWD described an advantage of the BM as having the same teacher three days a week that “really helped form connections and friendships with the lecturers themselves” (STU\_04) and was beneficial to their success. Another SWD described their FYE as having lecturers that were “approachable and easy to talk to” (STU\_02), with approachability being linked to the promotion of “self-efficacy and to a climate of trust” (Allan et al., 2009, p. 366). Coates (2007) highlights that when students

are intensely engaged in their study, they view the learning environment as responsive with teachers who are approachable and supportive. This positive academic success outcomes found in Study 1 for students from equity group backgrounds (reported above) suggest that the FYC learning and teaching environment was student-centred and inclusive.

Study 2 found that teaching staff had developed appropriate teaching practices through professional development for BM teaching and were supported by inclusive curriculum design. STF\_03 reported that staff teaching in the FYC “are very inclusive” and have undertaken “a lot of professional development on how we work at getting people to work in groups”. STF\_08 further described their experience of the change management required for BM when they expressed that they “had a very extensive professional learning program” which applied to all staff, not only academic staff in the FYC. The student experience was at the forefront of the FYM and BM change, as articulated by STF\_10, who stated that, as an academic, they “appreciated the work that I’ve been able to do in terms of professional development around the curriculum and adapting it and really thinking about the student experience.”

### ***New Barriers for Engagement and Belonging***

The observation was made during the Study 3 interviews that student participants were sharing their first-year learning and teaching experiences that were on campus and in-person, and perspectives from a time that were pre-COVID. This is important to contextualise the findings related to the FYM and BM and the experiences that these participants reported. In-person learning and teaching would have enhanced student-centred approaches when BM classes were delivered on campus. Student participants frequently commented throughout the interviews that being on campus with classes



taught in person was a superior experience in comparison to online BM delivery introduced to support continuity of learning and teaching during the pandemic. STU\_06 represented this perspective when they reported that being on campus “made a massive difference” in establishing interpersonal belonging, and STU\_13 commented that they’re now “missing all those aspects because it’s all online”. The online platform for BM delivery was described as “very difficult to engage over Zoom” (STU\_08). These findings correlate with Martin’s (2020) research conducted for the Australian Government’s Tertiary Education Quality and Standards Agency (TEQSA). This work investigated the experiences of students with online learning in Australian HE during COVID-19. The study found that a very large proportion of students did not enjoy the experience of online learning and “did not wish to ever experience it again” (Martin, 2020, p. 8). Students who responded to the research surveys experienced issues or perceived problems with a lack of engagement, inadequate academic interaction, and insufficient peer interaction. In Study 3, one student with a mental health issue, who had previously received support from their teacher in confidence and in an accessible and approachable learning environment, commented on their concern for how this would continue to “work online” (STU\_02) in the new online BM class environment.

### ***Differences in Staff and Student Perspectives***

The qualitative studies 2 and 3 also revealed two important differences in the perspectives of staff and students from their lived experiences. Staff relayed experiences mostly from within the context of their classroom experiences with students, whereas students drew upon their experiences inside and outside of the formal learning environment. Study 2 findings indicated that improved digital learning technologies deployed with the BM curriculum reform improved the design of inclusive student-centred learning and teaching. In addition, Study 2 found that the BM required teachers

to “think about engagement in a different way” (STF\_04) and the University to “upskill the whole workforce” (STF\_04), which included learning designers and other University support staff. The introduction of enhanced learning and teaching technologies was also reported as a proactive tool for teachers to “pick up and address issues” (STF\_10) with students much sooner than in traditional mode when students (particularly higher performers) were “left to their own devices” (STF\_10) at times. The effect of this change was observed in Study 1, with the mean mark of students increasing for each consecutive group and a significant difference reported for all academic disciplines except for Engineering.

Study 3 found a key difference in student-centred approaches outside the classroom that staff did not highlight in Study 2. Students expressed that they received holistic student-centred support through services such as counselling and disability support services that were “absolutely” (STU\_04) effective outside the classroom. TMG students also reported the importance of counselling support services that were existent before the FYM and BM, as represented by STU\_11, who commented that the counselling staff were “a really big influence”. The relationship with teachers again was evident in how holistic the student-centred approaches were, with one student reporting that they did not need to access the counselling service in their first year to obtain support for their mental health because their teachers were “so open and approachable” (STU\_02) and they felt they could discuss their needs within the classroom environment. Study 1 demonstrated the positive effect the FYM and BM had on SWD, finding that, from the TMG to the IBG, pass rates increased by 2.9pp, and that this increase continued in the subsequent year when the SBG showed an increased pass grade percentage of 15.7pp compared to the TMG. These findings show that a holistic

support system facilitated by engaged staff across the University was in place to support all first-year students.

Study 3 findings also indicated that interpersonal belonging was enhanced by students being able to engage in their chosen “extracurricular” (STF\_08) programs at the University and undertake “internships and other leadership roles” (STU\_01), with opportunities to grow personal skills and their “career as well” (STU\_01). Staff participants in Study 2 raised their concerns about the University being able to foster this level of student engagement outside the classroom because BM only requires students to “engage in certain parts of the week” (STF\_05), and academic success can be influenced by these types of university life activities that contribute towards and form “a successful academic journey” (STF\_01).

The research findings suggest that improved academic success outcomes from the student-centred approaches were effective in helping students recognise their capability to belong and form their sense of belonging throughout their first-year studies (Burke et al., 2016). The following section discusses the major finding that focused learning in small classes further enhanced the student-centred approach to learning and teaching and promoted academic success.

### **BM Pedagogy Enabled Students to Focus on Learning**

The BM design that focused learning and assessment on one unit at a time, taught over four-week study blocks, contributed to improved student academic success. Staff participants in Study 2 cited this pedagogical change from the traditional mode as one of the major influences on students attaining the “improvement in grades” (STF\_14) that student participants reported in Study 3. Study 1 confirmed this influence when it was found that fail grade percentages continued to decline in percentage for all units

from the TMG to the SBG and for all academic disciplines. In addition, staff participants commented that students in BM had the advantage of being able to “fully immerse themselves” (STF\_03) and not be “distracted” (STF\_02) by other units. One student participant provided commentary that supported these findings, stating that focused BM learning was the “secret to my success” (STU\_08). Other student participants in Study 3 verified the positive impact that focused BM learning had on their academic success. They reported receiving the “grades I wanted” (STU\_04) because they were able to “focus my attention” (STU\_02) and “manage my time better” (STU\_09) within the timeframes of the four-week study block.

Study 1 revealed that the academic disciplines reported different frequencies in grade distributions between the groups, with the greatest grade percentage improvement for HD grades found between the TMG and SBG for the Sports, Law, and Health Disciplines. The most significant reduction in fail grades between these same groups occurred in the Sport discipline (46.5% reduced to 8.9%), which evidenced how significant the educational reform was for the academic success of this cohort.

The academic benefit of learning one unit at a time also extended to “one assessment at a time” (STU\_05), whereby “assessments are paced very much week to week” (STF\_15). Student participants in Study 3 described the adjusted assessment for BM as more “manageable” (STU\_09). One participant reflected that they felt the adjustment to the BM assessment was “designed for students to be successful” (STU\_12). Staff participants in Study 2 confirmed this perspective when they reported that students were better supported in BM with an “achievable set of assessments” (STF\_13) used to “scaffold” (STF\_01) learning with “small” (STF\_13) pieces of assessment in each week of the four-week block. Student participants in Study 3 spoke more generally about being able to “focus purely” (STU\_09) on both learning and assessment for the one BM

unit. The literature highlights that helping students achieve early success through the deliberate management of their first assessment tasks (e.g., type, timing, feedback) is critical to developing the students' sense of their academic capability (Lizzio, 2006). Staff reported that BM was effective in providing first-year students with regular "feedback on their assessment" (STF\_01) before a study block ended and with a "result at the end of every four weeks" (STF\_11), which gave students feedback on how they are "tracking" (STF\_11) academically. This finding, related to the BM's early and regular assessment and feedback structure, showed that this change in learning and teaching had a positive impact on enabling students to develop their academic capability and achieve successful outcomes. The reduction in fail grades between TMG and SBG of 16.7pp also seems to support the benefits of focusing on one unit and one assessment at a time.

As found in other studies (Goode et al., 2022; McCluskey et al., 2020; Scott, 2003), redesigning traditional mode units for the intensive mode education can improve unit design. The design change to support teaching over four weeks in BM, compared to 12 weeks in the traditional mode, has been highlighted as beneficial for designing units that support depth of student learning, active learning pedagogies, and adjusted assessment design. These studies have also emphasised that changes to curriculum and unit design for intensive mode can positively impact the student experience. This impact was highlighted by STU\_04, who commented that, along with the relationships formed with staff and peers, they also considered that "being able to focus" on one unit in BM was one of the "best parts of my experience". In comparison, student participants in Study 3, who undertook the traditional mode of learning (i.e., TMG), reported that undertaking four units at once in a semester had them feeling "overwhelmed" (STU\_07) when assessments and exams were due, often at the same time. STU\_10 (TMG) reported

focusing on “more important” units during the semester and de-prioritising other units of less interest. This finding from the TMG further reinforces the benefits first-year students in the BM had with focused learning to “prioritise your mind” (STU\_08) on one unit matter at a time within one study block.

### **Students Engaged with Active Learning and Teaching in Small Classes**

The BM adopted a small class format to support intensive mode learning and discontinued the practice of large lecture style formats previously used in traditional mode. The small class format was defined through the descriptions provided by staff participants in Study 2. Small classes consisted of “up to 30 students” (STF\_01) that incorporated “active learning” (STF\_12) for students “to engage with one unit at a time” (STF\_02) based around “small intimate spaces” (STF\_07). These participants highlighted that the FYC set out to “create communities of learners” (STF\_08) within small classes who learned together in the same group in three BM classes for each of the four weeks. The small classes were reported as one way for first-year students to get to “know themselves and each other” (STF\_08), supported by “one academic with them for the entire time” (STF\_08). Studies 2 and 3 found that the small classes in the BM learning and teaching environment enabled active learning and teaching practices that helped enhance student-teacher engagement and promote positive academic success outcomes for students.

Study 2 findings highlighted that “small class groups” (STF\_02) facilitated an inclusive learning environment for students from all backgrounds. The small class format designed for BM enabled the “personalised” (STF\_14) support, reported earlier in this chapter, for students from equity group backgrounds. STF\_02 commented that

the small classes “intrinsically gives support to a lot of the First in Family and low-SES students”, with issues “addressed quicker than in a big lecture theatre” (STF\_09).

Student participants in Study 3 gave their perspectives on the benefits of small classes that included the need to “make sure you’re focusing” (STU\_05) and to not lose concentration or “my name is coming up” (STU\_05) in front of the class from the teacher. Staff participants also described this attribute of small classes as students “feeling accountable” (STF\_12) because the class size enables teachers to know every student’s name.

Developing familiarity between students and teachers has been reported by first-year students as essential for student engagement and belonging (Kahu et al., 2022). Researchers found that an early sense of belonging, developed through familiarity, was foundational and a “necessary precursor to the deeper interpersonal and academic belonging that could come later” (Kahu et al., 2022, p. 12). In Study 2, BM’s influence on creating familiarity between students and teachers was described by STF\_01, who reported that “once you get into a classroom, in the way that the block model's been designed, you have a familiar environment.” STF\_12 further reported that the small classes had made a “huge difference” in enabling student relationships with teachers and peers”, and added that the format had enabled students to “feel confident to ask a question”.

The finding that small BM class groups facilitated familiarity and confidence highlights the importance of the connection between different but mutually reinforcing aspects (Willison, 2020) of the FYM and BM. For example, active learning in a small class environment, complemented by the student-centred approaches discussed earlier, is a dual educational design approach fostering familiarity that contributes to an early sense of belonging. In BM, this familiarity and relationship building must develop more

quickly in an intensive four-week block delivery mode to promote student engagement in the small class environment. A Study 3 student participant (TMG) noted that, with the traditional 12-week semester-mode, students have more “time to build relationships and learn the content – be more confident asking questions because you’re in a much more familiar environment” (STU\_13). This observation emphasises the importance of ensuring that rapport is established promptly within the small class learning environments, to nurture effective learner engagement in the time-shortened BM unit format.

The BM introduced “active learning” (STF\_12), which enhanced familiarity and the sense of belonging through an engaging learning environment created for students and teachers in small classes. Staff participants in Study 2 articulated that the “end goal” (STF\_07) of the FYM and BM was to create “engaging and active classrooms” (STF\_07), where students are the “active participants” (STF\_10) with an elevated “teaching and learning experience” (STF\_12) compared to the traditional mode. Student participants in Study 3 expressed a view that teacher engagement was a critical aspect of first-year education when it came to their success. Student participants reported that teachers in the FYC were “dedicated” (STU\_10) because of the small class environment, displaying good “teacher effort” (STU\_03), which aided their student engagement from the experience that teachers showed interest in them and their learning (Coates, 2007). Staff participants in Study 2 described the small class teaching experience as “really intensive” (STF\_14) and one in which “there’s a lot going on that requires our concentration and attention” (STF\_02). Study 1 demonstrated the associated impact on student satisfaction levels through the significant SESR mean score increase between the groups: students perceived that their teachers had



demonstrated more concern for their learning in the IBG and SBG compared to the TMG.

Staff participants gave further insight into the student experience when they described their active and engaged small class teaching practices. Classes delivered over three hours were viewed as “very interactive, so you’re really engaged” (STF\_14), with an improved “staff to student ratio” (STF\_14) allowing teachers to engage with students more closely compared to the traditional mode. The small classes created “substantial, real and genuine engagement with ... the learning, with the curriculum, with the teachers” (STF\_11) and promoted academic success for students. The BM was found to be the catalyst for educational “transformation” (STF\_05) that introduced active and engaged learning in small classes at the University. The BM was the change to first-year education that staff felt “allowed” (STF\_12) them, as teaching staff, to implement what they knew would “work” (STF\_12) for their students. What ‘worked’ included building relationships between students and teachers and enhancing the learning environment, which Winchester et al. (2021) also reported in their study at the same university. This finding also suggests the possibility that teachers who transitioned from the traditional mode to BM may have also had increased autonomy in the classroom, which may have positively affected their engagement and effectiveness (Willison, 2020).

Student participants in Study 3 acknowledged the benefit of engaged and active learning that encourages teacher “communication with us as students and ... the way that they just make us participate” (STU\_03). The self-identified benefits of engaging and participating through active learning in small classes were highlighted by STU\_03, who noted that it is “better when we all talk together and having a small class or 20, 30, it's pretty intimate. We all just learn from each other and that's better.”

Increased student engagement with peers and teachers, through participation, contributes to a stronger sense of belonging. Student participation actively involves students in learning, with openness and encouragement from their teachers to be independent thinkers who develop their conceptions of the unit matter beyond those exclusive to the teacher's perceptions (Delaney et al., 2010; Exeter et al., 2010). This level of student participation has been reported as "both an influence on and a consequence of academic belonging" (Kahu et al., 2022, p. 14). Study 1 highlighted this when a significant effect was found in the SESR that showed students perceived an improvement between the TMG and the SBG in how teachers engaged them actively in learning.

Active participation has been emphasised as a method to help students feel that they belong and a sense of belonging contributes to their confidence to participate in class. It was evident from studies 1, 2 and 3 that the BM supported improvements in student participation and engagement through active learning and teaching techniques and that these improvements contributed to better outcomes. These techniques are commonly used in small classes to enhance learner engagement, participation, and interpersonal relations (Delaney et al., 2010; Exeter et al., 2010; Lee & Horsfall, 2010) in order to promote student academic success, as was found in this research.

### ***Sub-aim 2: Influences of the FYM and BM on Student Satisfaction***

This section presents the major findings related to the research sub-aim that sought to 'evaluate the influence of the FYM and BM on student satisfaction for first-year undergraduate students across multiple academic disciplines and student equity group cohorts'. The finding that students overall were more satisfied with the FYM and BM is discussed first, to establish the context for the following sections that discuss those aspects that made the greatest contribution to positive satisfaction scores. The variances

in student satisfaction and the aspects of the educational reform that influenced some adverse outcomes in student satisfaction for particular cohorts are also discussed.

### **Students Were More Satisfied with Teaching Quality and Their FYE**

Study 1 found that the overall commencing first-year student target population in the FYM and BM were more satisfied with teaching quality and the quality of their entire first-year educational experience compared to first-year students in traditional mode. This level of satisfaction was evidenced in quantitative Study 1 through the comparative analysis of SESR data between the TMG and the SBG in the second year of the FYM and BM's implementation. Study 1 found that student satisfaction had an 8.14 mean score increase for teaching quality indicators from the TMG to the SBG.

Student and staff perspectives from the findings of the qualitative studies 2 and 3 provided insight into the quantitative findings outlined above. Students conveyed being satisfied because of the academic success they attained with “high grades” (STU\_04), which was enabled by holistic “support systems” (STU\_01) and inclusive teaching staff, who were described as “respectful” (STU\_17) and focused on wanting “us to succeed” (STU\_02). Students also attributed the focused learning aspect of BM as an influence on their positive satisfaction level. Staff participants in Study 2 concurred with this view that satisfaction is facilitated by the “quality of learning and teaching within a classroom” (STF\_01), “the support” (STF\_04) provided while undertaking their study, and the “alignment between their [students'] expectations and what they receive” (STF\_02).

The improved levels of student satisfaction correlate with the recommendations of another Australian study (Biswas et al., 2022), which explored the determinants and consequences of student satisfaction. The study concluded that universities should focus

on student-centred design and delivery of curriculum, promoted by all staff (academic and professional) with a student-centred approach, to create positive learning experiences that enhance academic engagement and influence student satisfaction levels.

The overall findings of the current study also correlate with Baik et al. (2019), who stated that the student experience is linked to notions of student success and, therefore, students tend to report a satisfactory experience if they feel they are succeeding in their university life. This connection was exemplified in the current study by STF\_04, who conveyed from their lived experience of working with first-year students that “success and satisfaction go hand in hand.” However, Study 1 revealed that academic success does not always guarantee student satisfaction. The analysis of individual units found that improved academic success outcomes measured by pass/fail rates from the TMG to the SBG for five units (i.e., Information Systems, Structural Kinesiology, Programming, Communication Management, and Legal Research), were not matched by improved satisfaction ratings as measured by the SEUR. This finding indicates that other factors, not identifiable from this research, may influence satisfaction levels for these units. Interpreting student satisfaction from the single question proposed to students in the SEU survey (i.e., ‘overall, I am satisfied with the quality of this unit’) can be challenging, with multiple and relatable variables influencing ratings (Elliott & Shin, 2022). Study 1 also found other evidence of variance among student satisfaction levels, as discussed in the next section.

## **The Impacts of Disruption and BM Consistency on Student Satisfaction**

Two key findings in Study 1 indicated variances in student satisfaction across different cohorts and academic disciplines, as measured by certain aspects of the SES and SEU surveys.

The first finding was an important pattern related to how positively the first-year student population rated indicators of teaching quality (i.e., TQI) via the SES in the first year of the FYM and BM implementation. Study 1 found that student satisfaction ratings in the pairwise comparison between the TMG and IBG showed no significant difference for the two TQI survey items that evaluated (a) to what extent students felt their course had been delivered in a way that was well-structured and focused, and (b) to what extent teachers demonstrated concern for student learning. While the categorical mean score improved marginally, this result demonstrated that the change to the FYM and BM did not significantly improve student satisfaction as measured by these TQIs in the first year of implementation. This result could be attributed to the University's implementation activities that year (2018) to embed the first-year education reform, that coincided with the timing of the SES release (around August) to students. Evidence that the University had continuous improvement practices in place and that the educational reform became more embedded for the first-year of courses was found when these two TQIs reported a positive significant difference in the pairwise comparison of the TMG and SBG groups.

Study 2 results supported these findings relating to the correlation of IBG student satisfaction levels with the inaugural year of FYM and BM implementation. The staff participants described the inaugural year as “disruptive” (STF\_02) and a year in which they were “seeing things transform” (STF\_01) in relation to students, teaching staff, curriculum, the consolidation of first-year units within courses, and the FYC. The

changes required for BM were found to have completely changed the “rhythm” (STF\_02) and the “cycle of work” (STF\_09) across the University. These findings supported the Study 1 data that showed the results on the two TQIs did significantly improve in the SBG (compared with the TMG). These results suggest that the disruption from the implementation of the educational reform may have contributed to satisfaction levels, but was isolated to the first year of implementation.

The second finding from Study 1 was associated with the SEU satisfaction ratings at the unit level. At the unit and student cohort level, across multiple academic disciplines, a set of variable patterns of student satisfaction were found across twelve units. These were:

- Five units continuously improved student satisfaction levels from the TMG to the IBG and from the IBG to the SBG (i.e., Economic Principles, Human Physiology, Legal System, Indigenous Health, and Professional Studies).
- The Health and Biomedicine academic discipline was the only area demonstrating continually improved student satisfaction for both units every year after the transition from the traditional mode.
- Five units were found to have declining mean scores for student satisfaction in the second year of the FYM and BM implementation (SBG) when compared to the TMG (i.e., Information Systems, Structural Kinesiology, Programming, Communication Management, and Legal Research).
- Two units were found to have consistently declining student satisfaction rates for the FYM and BM, for both the IBG and SBG, compared to the TMG (i.e., Structural Kinesiology (Sports discipline) and Communication Management (Engineering discipline)).

The qualitative studies 2 and 3 provided insight into the possible influencing factors for adverse and varying levels of student satisfaction at the unit level. One possible influence was student attitudes towards evaluation surveys, on which universities rely to gauge aspects of educational quality and to improve teaching and learning and enhance institutional capability (Biswas et al., 2022; Tucker et al., 2013). STU\_12 reported on the adverse influence that student attitudes to institutional surveys can have on satisfaction evaluations when they stated that “I don’t think students take the feedback seriously.” Findings from a study by Chen and Hoshower (2003), which evaluated factors that motivate HE students to participate in teaching evaluations, revealed that students may be reluctant to provide meaningful feedback if they do not see any evidence of change from their efforts in having contributed, or the purpose of the evaluation tool is not of value to them. However, the insights from staff participant perspectives (Study 2) provided a more comprehensive view of what occurred for first-year students in the first two years of the educational reform.

STF\_13 gave an insightful perspective when they reported that it had been “much more complex to introduce change into an individual unit”, compared to the course, which is what occurred in these first two years when undergraduate courses had not been transitioned to BM for all year levels. This participant also highlighted the issue that some of their colleagues “haven’t actually changed their curriculum since they initiated it” (STF\_13), to make the curriculum more “dynamic” (STF\_13) for BM delivery. As demonstrated by the SEUR results of Study 1, a trending pattern of decline was found for the student satisfaction ratings for two units (i.e., Structural Kinesiology and Communication Management). The declining ratings were a marginal but declining trend. Additional views from the staff participants in Study 2 were given on the importance of redesigning units effectively for BM and in a “way where the students

can see the applicability of that to where they want to go in their own learning” (STF\_14), constructing a further connection between student satisfaction, academic success and meeting student expectations highlighted in the previous section. In the globally competitive environment in which universities operate, meeting student expectations and needs is essential, as is the continuous improvement of a university’s ability to meet this student satisfaction threshold (Biswas et al., 2022; Turkyilmaz et al., 2018). Five units (i.e., Economic Principles, Human Physiology, Legal System, Indigenous Health, and Professional Studies) showed indications of continuous improvement as measured by student evaluation scores for the quality of unit (SEUR) found in Study 1.

Study 3 also identified the issue that students felt they did not experience “consistent practice” (STU\_01) in the application of BM teaching across different units. One student participant articulated this issue when they described the need for a more “structured teaching style that is consistent, and that is expected” (STU\_01). They described the University as having a BM teaching “system” (STU\_01) with little flexibility for teachers to use different teaching styles in BM that are not “as structured” (STU\_01) for intensive delivery. As a consequence, students have some “issues adapting to those difficult creative ... teaching styles” (STU\_01) when they are conditioned to a consistent and structured teaching style that supports the BM format. These comments signal the importance of consistency for the structure of BM teaching within the four-week blocks, across every unit, for student learning, which is affected by the intensity of the BM format if students have to frequently adapt to different teaching approaches. In addition, these comments highlight that students can recognise inconsistency in BM teaching practices across units and when these practices are not effective for the BM format. Other participants concurred with these findings, as



exemplified by STU\_14 who highlighted that students expect “consistency in their experience” to feel satisfied. In addition, this student participant described that the experience of learning from “high-performing staff” (STU\_14) sets a further expectation amongst students that influences their satisfaction level when other teachers are not “at that level” (STU\_14) in other BM units. These views provide insights that assist interpretation of the SEUR response variances between different units.

Study 2 provided insights from teaching staff on how the inner workings of the University and the BM curriculum renewal, and its implementation, have created challenges for consistency at the institutional level. One staff participant described the challenge of working across two colleges (i.e., a FYC and a DBC) in relation to the governance and management of the units that they teach to first-year students. STF\_15 described the complexity of their experience as a teacher delivering first-year BM units managed by “two Deans” and “two Directors” of Teaching and Learning, with one of each in the FYC and the DBC having oversight of learning and teaching. Another participant described the issue of connectivity between units as “the biggest issue that we have” and further elaborated that the “students can see inconsistency in expectations because of that” (STF\_05). This participant described the BM curriculum design and development process for units within a course as an “isolating” experience. STF\_12 also highlighted that not all learning environments are “suited to block mode teaching ... we want to have a consistency”. This mismatch results in students experiencing inconsistent levels of quality in their on-campus learning experience.

Potentially, this issue may extend further and include issues related to the appropriate onboarding of sessional teaching staff that two participants discussed in Study 2. STF\_16 commented that the University had to recruit sessional teaching staff who are “on board with the block”, and a reflection was made by another participant that their

College relies “hugely” (STF\_05) on sessional staff, which is often “not really well planned” (STF\_05). This set of findings reinforces the importance of addressing all aspects associated with the consistency of BM teaching quality, the institutional management of BM learning and teaching, and monitoring and managing the educational reform to facilitate the highest levels of consistency and, therefore, of student satisfaction.

The findings discussed above evidence the transitioning pattern of, and the factors influencing, student satisfaction during the first two years of the FYM and BM implementation. A longitudinal UK study on student satisfaction by Burgess et al. (2018) presented findings that correlate with this research, showing that teaching quality and organisation and management are the most critical factors that influence student satisfaction. The following section discusses the importance and influences of student satisfaction surveys.

### **The Importance and Limitations of Student Satisfaction Surveys**

Study 1 highlighted the importance of using various forms of student satisfaction data at different junctures throughout the student journey and during the implementation of an educational reform. Two lenses were used to examine how satisfied students were with the FYM and BM using data accessed from two different student satisfaction survey instruments (i.e., the SEU and SES). The findings from the analysis of the SEUR and SESR data from Study 1 provided insights into student satisfaction levels within the educational reform and at the different stages of a student’s first-year of study. Both survey instruments were found to have been designed for the semester-based traditional mode of HE. As a result of this finding, two important observations were made when interpreting the major findings for student satisfaction and comparing the SES and SEU

survey instruments for BM education. These two observations are discussed below and highlight the need for BM student satisfaction surveys to have a suitable approach that measures the most important determinants (Hornstein, 2017) for the educational mode, at the right time intervals for the BM schedule.

The SEUR findings presented the student satisfaction levels across different units and academic disciplines during the first year of study. This provided the perspectives of students from smaller cohorts, shaped from within each of the units included in this study's sample. First-year student population-level findings from the SESR gave student perspectives of their FYE regarding the quality of teaching and overall satisfaction with their course in the first year of study. SEUR satisfaction levels are contextualised to one unit, one teacher, one academic performance, and one experience from the first year of study. As reported in Chapter Four, the SEU survey has limitations because it is released to students before the end of the teaching period (i.e., before week four of the block) to obtain feedback on the quality of the unit. Depending on when they complete the survey, students have typically not completed their unit and have only received the first two assessment results that count toward their unit result. Students also receive the survey at a time considered to be one of the most intense study periods within the four-week block. The SEU survey was also found to have some potential discrepancies in data related to the inclusion of withdrawn/discontinued students from the unit (see Chapter Four).

The SES only engages a wider first-year student target population from a sample of students that are “enrolled in the course for at least one full teaching period” (Social Research Centre, 2020, p. 7) representing commencing “students enrolled in the first half” (p. 7) of an academic year. The survey is then typically released in August of each year, part way through the first year of study, for selected students to reflect at that time

on multiple aspects of their satisfaction. The limitations for understanding student satisfaction in the first-year of BM via the SES appear to be that the response rates are likely to include students who undertook as little as one BM unit (i.e. four-weeks of education in one single unit). The views of students who are not enrolled at that time, and potentially do not return to study between blocks are not collected (as each block has an enrolment and census date different to semester-based enrolment). In contrast, the SEU provides valuable and timely feedback from first-year students who did not continue in their studies in the following year, along with insights into their satisfaction level at the time of undertaking the unit. The SES may not present data representative of the 'first-year population' for BM. Potentially the data may not be comparable for use in HE sector benchmarking using the SES results if the FYE for the University's BM students is compared to students in traditional mode who have largely undertaken four units of study in the one teaching period (compared to one BM unit). An additional limitation in understanding the SESR is that it presents student satisfaction with the quality of teaching and their overall FYE but the data is collected half-way through the academic year and is not representative of the complete 'first year'. The SES also excludes first-year BM students that enrolled and first commenced their studies in block units later in the year due to the additional entry points the BM can offer students during an academic year compared to the semester-based mode.

In summary, both survey instruments provide a unique context from which to explore the FYM and BM's influences on student satisfaction from different perspectives, noting the differences in survey purpose, samples, and limitations. The influences of each survey instrument are an important factor to be considered for comparing the major findings reported for student satisfaction at the University. The influences and variances on student satisfaction at the unit level are also important factors considered

in connection to the findings for student retention, which are discussed in the next section.

### ***Sub-aim 3: Aspects of the FYM and BM that Impacted Student Retention***

This section presents the key findings from the three studies that explored the aspects of the FYM and BM that impacted student retention. These findings respond to the research sub-aim to ‘determine the aspects of the FYM and BM that have had the most impact on first-year undergraduate student retention across multiple academic disciplines and student equity group cohorts, compared to the traditional mode’. Study 1 found that student retention rates showed no significant statistical difference between the groups and that patterns of variation occurred across a range of different variables. These findings are discussed in the following sections, followed by the aspects associated with BM pace and intensity that influenced student retention.

#### **Overall Student Retention Rates Fluctuated**

Overall, student retention marginally improved for the SBG, compared to the TMG, in the second year of the FYM and BM. However, student retention rates did not improve significantly for the IBG and SBG, when compared to the TMG, and the rate of retention declined in the first year of the educational reform.

In the first year of the FYM and BM implementation (IBG), the student retention rate decreased by 2.7pp from the TMG. However, the student retention rate the following year improved slightly by 0.9pp for the SBG compared to the TMG which represented a 3.6pp improvement between the first year of the educational reform implementation and the second year. To provide context to these overall student retention findings at the group level, the next section discusses the variances in retention outcomes within and between different groups and cohorts to provide insight into these variations.

## **Student Retention Rates Varied Between Cohorts**

The complexity of overall student retention rates was evident when investigating this marginal increase and comparing the proportional results for the domestic and international student cohorts. While the overall student retention rate improved by 0.9pp from the TMG to the SBG, the proportion of domestic students within that result showed an improvement of 2.8pp. This analysis exposed the decreased international student retention rate for the same group comparison (i.e., a decline of 2.9pp). Furthermore, international student retention rates were found to have consistently declined each year since the introduction of the FYM and BM, with possible external and multi-causal factors adding to the attrition of the international cohort. COVID-19 will have had some influence on the SBG students; however, the decline was evident before the pandemic commenced in the IBG.

As with student satisfaction, Study 1 revealed notable variances within student retention (both positive and negative) associated with the key variables. Student retention results were not consistently positive across all disciplines and cohorts, with consecutive declines found in student retention between every group from the TMG to SBG for Business, Sport, and Arts and Education disciplines. A correlation between declining international student retention (reported above) and studying in the Business academic discipline was not surprising due to the large proportion of international students (21%) in that academic discipline's data sample. However, other units (e.g., Health) had a high proportion of international students and the data did not reveal declining student retention rates. This indicated that the Business student attrition rates were influenced by factors not identifiable in this research. In contrast, student retention outcomes improved for the Engineering, Law, and Health disciplines from the TMG to the SBG, which demonstrated the variances within the overall student retention rates.

As this research approached the analysis at the unit level, this finding reveals the importance of understanding patterns of variance at the cohort level rather than the population level, which can disguise important patterns in student retention that may require intervention. A staff participant from Study 2 provided an insight into these variations in student retention outcomes when they commented that “retention is going to be affected by different things for different cohorts with different expectations” (STF\_02). O’Shea’s (2021) work was consistent with this statement, describing contemporary university students as a ‘complex amalgamation of people at various stages of life’ (p. 23) who have a range of responsibilities outside of their studies.

Study 1 evidenced that students from each equity group background showed improved retention rates from the TMG to the SBG. However, declining retention rates were found in the IBG that were consistent with the overall group. The exception to this finding was SWD, which had increased retention rates each year of the FYM and BM, with an overall increased retention rate (18.5pp) from the TMG to the SBG. The benefits of the FYM and BM for SWD were highlighted by a student participant in Study 3, who commented on the holistic and student-centred support service developed by the University. This service ensured their teachers “understand” (STU\_017) what is required to assist students, and the University’s accessibility services unit provides an Access Plan tool for students that is a “bridge” (STU\_017) between the student, the accessibility service, and teachers. Staff interviewed in the study felt differently to students about their effectiveness in supporting SWD, when compared to the positive student reports of their experiences. One staff participant commented that the University “hasn’t quite worked out” yet how to best manage the constraints of the BM to enable students with mental health issues to “gain all the benefits that the First Year Model and Block gives them” (STF\_08). These contrasting comments between participant groups

were further represented by staff participant STF\_02, who conveyed that the BM possibly “disadvantages them because we’re just lagging in our ability to support” students from a teaching perspective. In comparison, the Study 1 findings did not evidence that SWD lacked support. Retention rates for this cohort increased significantly, as did all academic success indicators, which included improved pass rates, marks, and grade distribution.

The findings for student retention in this section highlight the complexity and variances that exist for measuring and interpreting student retention, particularly when examining retention at an ‘overall’ level. A student’s journey at university is complex and non-linear, which is not always considered in the context of retention rates and these characteristics cannot always be accounted for (O’Shea, 2021). Traditional performance indicators of student retention (as used by this University) may also be difficult to apply to measure BM retention because they are largely designed for traditional semester-mode education.

### **Influences of BM Pace and Intensity on Student Retention**

The qualitative research undertaken in Study 2 and Study 3 explored the aspects of the FYM and BM that impacted student retention from the unique lived experiences of staff and student participants. These findings identified a range of influences on student retention associated with the BM’s pace and intensity that are discussed in this section.

#### ***Flexibility Limitations of the Intensive Four-week BM Format***

Study 3 foregrounded the student voice related to the challenging and multi-faceted aspects of the BM’s pace and intensity, which can influence student wellbeing and student retention. This aspect of BM was further verified by a staff participant in Study 2, who reported that “students have been coming to terms with” (STF\_11) keeping up



with the four-week block schedule and the required study commitment, within the compressed unit time-period. This challenge was particularly evident for students from equity group backgrounds who were challenged to keep up with the BM while juggling external commitments. One student participant (a student from LSES who identified as a SWD) reported that these students are from families whose “parents are a lower socioeconomic status”, who must be able to work to “keep a roof over their heads, and there just isn’t enough time to be able to work and study” (STU\_04) within the BM constraints. This finding was supported by staff participant STF\_11, who observed that “there does tend to be a correlation” between students from LSES backgrounds and those students who do not attend class regularly. This participant gave examples of the competing demands for students from LSES backgrounds that impacted on their commitment to study, including “issues at home or homelessness or transition from homes, having to be carers” and they commented that these students “really struggle” (STF\_11) if they miss one week of their BM unit. In contrast to these qualitative insights, Study 1 found that more students from LSES backgrounds were retained in study between the TMG and the SBG, with a marginal decline between the TMG and IBG (consistent with the target population).

Critical life events can lead to absences from study or a diminished focus for students. These changes can in turn impact student health and wellbeing, particularly in BM, because the schedule has constrained flexibility for absences or catch-up study once the four-week BM unit has commenced. The impact of critical life events can have compounding effects on the financial welfare, housing, and other aspects of the lives of students from equity group backgrounds, which can ultimately impact their capacity for study (Rubin et al., 2022) and can therefore disrupt their retention in study. This University’s requirements to provide timely and adequate support at the individual

student level, to mitigate retention risks, may be extensive given the large first-year student population from equity group backgrounds. Apart from critical life events, the findings also revealed that not all students could keep up with BM full-time due to external commitments (particularly paid employment). Some students required a part-time study option that did not appear to be available to them. Staff participant STF\_06 confirmed that there was a “problem” with accommodating students who needed to study part-time, and another participant described the BM as needing an “enhancement” to be “more flexible” (STF\_04), while remaining true to the BM delivery principles. STF\_04 reported that if a part-time BM option was available to students, it would “really help ... with retention”.

The significance of class attendance to keep up in BM and remain in the unit was evident from the qualitative studies for all students. External factors that drew students away from their study (e.g., employment commitments) have a compounding effect on what students experience as intensity and pace in BM due to a “one day is one week” (STU\_08) of learning in teaching, in comparison to the traditional semester-mode. Students unable to keep up with their BM studies due to absences related to external factors, results in them often missing learning that is only delivered in-class and not accessible after the class (e.g., practical laboratory classes). The four-week block period compresses the time available to catch up and this impacts practical classes that are missed. A student participant from an equity group background reported that it is not always possible for the University to “accommodate those practical classes again” (STU\_10) which can impact a student’s success in a unit. An international student also emphasised that “you need to be there” (STU\_07) because there are no alternative options.

Student participants in Study 3 reported having to “do the unit again” (STU\_04), to remain in study, when the pace of BM moved faster than they could keep up with to remain in their studies. One participant facing a ‘fail’ result described a “beautiful thing in block” (STU\_08) is that you can re-do a unit within “three-and-a-half weeks” (STU\_08) and not take an entire semester period to repeat. In contrast, an IBG student with a disability, who had successfully gone on to complete their qualification, offered a different perspective. STU\_09 highlighted that as long as students can “independently keep up with the fast content, it is very beneficial because you can just focus purely on that one subject or that one assessment”, which resulted in this student “doing really well” academically.

### ***BM Course Design for Intensive Mode Learning***

The perception of some student participants was that the pace of BM unit content learning presented difficulties. Students could not learn “in a way where you’re going to retain it” (STU\_05), and that “it required a bit more time ... having to cram so much information in four weeks” (STU\_17), which was “quite difficult, considering the content load” (STU\_10). One staff member commented that “the limitations on the quantity and quality of learning within the block have created challenges for both staff and for students” (STF\_11). The pace and intensity of BM play out within the classroom environment for teachers too because they have “so much content to get through and such little time to do that” (STU\_09) that they cannot always dedicate the time that students may require to help them understand the content. A staff participant’s perspective concurred with this student perspective when they reported that BM is a “very intense experience for the student, but it’s an intense experience for the academic. There’s a relentless pace. The old rhythm would give you time to draw breath, relax, get back into the swing of things” (STF\_02) between blocks.

Previous studies of intensive mode (Scott, 2003; Kops, 2012) highlighted the important transition factors for universities moving from traditional to intensive mode. The transition requires alternative teaching practices that capitalise on the mode's strengths and student learning, without simply attempting to teach semester-length content in a condensed timeframe. In addition to redesigning learning and teaching, the change to BM needs to be fully embedded at the institutional and course levels and fully adopted by all teachers across year levels. STF\_05 stated the "quality is something that we don't have control over entirely, but I think we need", indicating that there was not full confidence across the University about "the way that some of the units are run" (STF\_05) by some teachers. Consistency in the application of BM is key to facilitating student success, as highlighted in the previous section in relation to student satisfaction. If unresolved, these institutional transition factors may have contributed to the experiences and perceptions of student participants that their learning was rushed, which possibly impacted their time for reflection and their retention of knowledge.

If BM is not designed, applied, and taught consistently, at both unit and course levels, inconsistency could lead to compounding issues for the quality of student learning throughout their studies. Without effective action by the University, students may continue to question the overall quality of their learning, which could impact student satisfaction and retention. Burton and Nesbit (2008) reported that students had reservations about learning in block format courses and about their ability to learn as much as they could in traditional mode. These researchers found that student reservations decreased as their experiences with the block format increased. They highlighted the need for universities to identify and address student concerns to improve the application of BM and the student experience. This issue is further compounded when students are not actively participating and engaging in class, acknowledging that,

when this occurs, they “lose so much content and information” (STU\_09) which impacts their ability to keep up with their block unit. To successfully mitigate some of the pressure of the BM intensity, student participants reported that they self-initiated a practice of “looking at my content, my units before time” (STU\_05) to engage effectively in class and grasp new concepts, and also that they had “built up those practices of setting the time out in my schedule to do the uni work” (STU\_02) outside of class time.

### ***Student Wellbeing and Persistence***

For students, the time constraints of BM and the influence this has on the intensity were found to be particularly difficult for students with mental health issues. STF\_11 represented this difficulty when they commented that “students with mental health issues have really struggled with it, and the main reason is [that] they find the strict time constraints really problematic.” These students are sometimes unable to submit work within the timeframe and, as one student stated, there is “very little flexibility” (STU\_10) with the approval process time frame to apply for special consideration to address the issue due to the “rapid cycle of block” (STF\_11). Comparing the experience of special consideration in the traditional mode, STF\_11 made the point that this was no different and that “those same kinds of things used to happen with the old way as well ... it probably gets exacerbated a little more with the four-week turnaround.” The negative impacts on student wellbeing from learning intensively in BM were described by some student participants in Study 3 as “stressful” (STU\_02). However, given the consideration of external factors and the complexity of busy student lives (Stone et al., 2021), several students commented from their experiences of traditional mode that it was “more stressful back in the regular mode” (STU\_16) due to studying multiple units at once. Findings revealed that a similar equivalent level of pressure of being a

university student was evident in the BM as it was found to be “incredibly stressful because everything’s packed into such a small amount of time” (STU\_02).

The student voice evidences the need to ameliorate some of these challenges for students, which are exacerbated by two factors. One critical factor is the time limit associated with the four-week BM, which creates pace and intensity for student learning with little flexibility for deviation from the BM schedule. In the context of this University and this research, the second factor is the large proportion of students from one or more equity group backgrounds and the impact that broader social issues and external influences (e.g., employment, caring) have on their retention and success (O’Shea, 2021). These issues and influences may always involve absences from study for these students, within one block unit or across many block units. For those with ongoing mental and other health concerns, staff acknowledged in Study 2 that the BM is “incredibly overwhelming just because of the fast-paced nature of it” (STF\_08) and that there is an opportunity to be “more flexible” (STF\_04) in the design as it will help with “retention” (STF\_04).

Previous literature highlights how education and curriculum that is rewarding, relevant and of good quality can aid student retention by motivating students to persist (Tinto, 2017a). In this research, this is true for domestic students whose retention rates in the SBG exceeded those in the TMG. However, due to the marginal student retention rate increase (0.1pp) that occurred for domestic students in the first year of implementation (IBG), more research is required to ascertain if the increase in retention rate found for the SBG continued to trend upwards for the commencing cohorts in the subsequent years. Similarly, further investigation is required into the reasons why international students were not being retained at the same level as domestic students in

BM (pre-COVID-19) and why there was a continuing pattern of declining retention (see Chapter Eight for recommendations).

Findings in this section have focused on the tension that exists between the BM's four-week unit design, the commitment required by students to attend study and keep up, and the disadvantages of external commitments or health circumstances experienced by particular student cohorts (Thomas, 2021). These multi-faceted aspects of what needs to go 'right' in BM for student retention occur continuously, repetitively, and monthly throughout the BM annual academic cycle (up to a maximum of 10 blocks per year per student). The effect on a student's retention once things start to go 'wrong' in BM, especially for students from equity group backgrounds, could have a rapid and negative domino effect. In comparison, when things are going well and students have "learnt how to learn" (STU\_08) in BM, their self-efficacy and academic capability is likely to develop and get stronger to enhance their motivation and engagement in study (Kahu et al., 2022; Kahu & Nelson, 2018) and adequately prepare them as learners for their second-year studies.

### ***Expectations and Preparedness for Intensive Courses***

One of the issues for students, before they commence first-year study, is their view of the benefits of BM as advertised by the University on their website: namely, that you can "pause your studies for a block or two and start again" (VU, 2023a, Options to fast-track or slow down your studies section). However, the disruption caused by doing so may not promote the commitment and perseverance required for student retention. Similarly, the advertising that BM has "focused timetabling" (VU, 2023a, More Free Time section), which provides students with more time to commit to "work, social life, sport, caring responsibilities, and everything else that's important to you" (VU, 2023a,

More Free Time section), contradicts with the evidence from this research of what is required for students to be focused, committed and successful learners in BM as they embark on their first year of study. Stronger connections are necessary between the advertising information, the subsequent expectations of commencing first-year students, and the realities of what is required to be a successful student in BM, as outlined in Chapter Six. These realities include being prepared for intensive mode study with the correct information from the beginning, understanding the time commitment required for such study, its pace, and the necessary preparation required to keep up (Crispin et al., 2016; Kops, 2012).

### **Summary**

On the basis of the outcomes for student academic success and satisfaction reported earlier in this chapter, clear evidence exists to support the University remaining committed to the original BM design for first-year students. In comparison, the individual student aspects that impact and enhance student retention are no different in BM to those in traditional semester-mode. However, in traditional mode, it may be the case that there is more time and flexibility for interventions, catch-up study, or learning adjustments to be made due to the longer time in a semester-long study period. For the University at the centre of this research, the supposed benefits of the traditional mode (e.g., more time in semester-mode for a unit) did not necessarily promote improved student success, and this research evidenced that first-year student outcomes were improved for academic success, student satisfaction and student retention in the FYM and BM.

From the evidence presented, this research has demonstrated that the FYM and BM have positively supported improvements in academic success for first-year students.



Students attained academic success through student-centred approaches to learning and teaching that promoted academic and interpersonal belonging and fostered academic capability. The BM was found to be the catalyst for the renewal of the undergraduate curriculum and the introduction of new and improved practices for learning and teaching. These practices were focused, active, engaged learning in small classes, with students learning within a dedicated and multi-disciplinary FYC. The revision and refinement of teaching and learning practices were pivotal in the educational reform that led to improved academic success outcomes for first-year students. When combined with the institutional focus on a student-centred approach to learning and teaching and holistic support services, these changes promoted interpersonal and academic belonging and success for first-year students.

Overall, students who undertook first-year studies in the FYM and BM were more satisfied than those who undertook traditional mode studies in the preceding year. In addition, following an inaugural year that involved a level of institutional disruption to introduce the educational reform, and a possible negative impact on student retention, the rate by which students were retained in study improved marginally in the subsequent year of the educational reform. However, variances were found throughout the analysis of different units, academic disciplines, and equity groups, and these variances indicated that the success of the FYM and BM was influenced by individual and institutional factors, as is the case with the traditional mode of education. This quantitative finding was given further reinforcement by staff participants, who described the complexity of factors that influence student success in the qualitative study.

This research has contextualised the perspectives of student success using two lenses that draw upon the voices of student and staff participants. The qualitative research sheds light on the quantitative results that showed students had attained higher academic

success rates in the FYM and BM. The first lens was the factors for student success that both groups of participants separately perceived to be important in HE. The second lens was the factors for student success in the FYM and BM that both groups reported as critical. The qualitative studies provided these rich insights into the multi-faceted perceptions of student success, which complemented the measures and findings from the quantitative study (O’Shea, 2021).

While this research has found an efficacious whole-of-institution change achieved an educational reform of first-year undergraduate education, the qualitative studies found that some constraints emerged from the implementation. Constraints that stemmed from the BM design were evident in the research, such as requiring students to engage proactively as learners to complete an intensive unit within a four-week block. At times, this design created time pressure on students due to some internal factors related to the institution (e.g., scheduling) and external factors related to students (e.g., work commitments). Despite these constraints, students performed better academically, although some evidence of particular issues relating to student wellbeing was also found. These findings inform the recommendations for practice and for future research (see Chapter Eight).

The final sections of this chapter discuss the limitations of this research and the reflections of the researcher, which reflect on the researcher’s experiences conducting the studies and the positionality statements made at the commencement of this research (see Chapter Three).

### **Limitations**

The mixed methods design of this research, incorporating both quantitative and qualitative research approaches, aimed to reduce the limitations of exclusive reliance on

either method (Bamberger, 2012). Although the research achieved its objectives, some limitations to this research were identified and considered and these limitations are discussed below.

### ***General***

The research was contextualised to the University, its first-year student population, and the unique design of the FYM and BM. These limitations posed unique opportunities to explore an a first-year undergraduate educational reform and intensive mode education implemented on a large scale for all first-year undergraduate students, including a significant proportion of students from equity group backgrounds. Conversely, this was a study undertaken at only one university.

The research focused on the first two years of the FYM and BM implementation. During this time, BM was taught in person and on campus, so the research findings only reflect the lived experiences of staff and students in this mode. Since COVID-19, changes have been made to how BM is delivered at the University, with additional delivery mode options that include an ‘online real-time’ mode. This research provides some initial findings on student experiences of this change because they were undertaking classes in this adapted BM delivery format at the time of the studies. During the interviews, reflecting back upon their first-year, students offered comparisons of their experiences of the two delivery modes. Recommendations for practice related to those initial findings are discussed in Chapter Eight.

### ***Quantitative Study Limitations***

The Study 1 analysis was limited by the target population and sample and the findings are therefore not reflective of the entire first-year population for each group. The target population was limited to the first two groups that commenced in the FYM

and BM post implementation, and the target sample was limited to a cross-sectional data collection for 12 units across all six academic disciplines. A longitudinal data collection over a longer timeframe and across the entire first-year student population sample size would facilitate greater depth than was possible through this research's cross-sectional design.

Another limitation of this research was the small unit sample size that was also associated with a small sample of teaching staff. This small sample may have meant that the teaching capability, quality, and experience within it had a particular impact on the research findings that may have varied or not have been evident had a larger sample been used. Data was also not available on the teaching staff and their mode of employment (e.g., sessional, or ongoing staff) to enable a comparative analysis of student success with the modes that teachers were engaged/employed at the University.

Analysis at the course-level, as well as at the unit level, would allow for a more accurate representation of outcomes for academic disciplines. A course-level sample design would also facilitate research for an extended range of academic disciplines beyond the academic college groupings that were used in this research. These groupings followed the University's organising structure for learning and teaching operations at the time the research commenced.

Student satisfaction data collected and analysed for the SEUR and SESR had several limitations previously discussed in Chapter Four. In addition, the limitations of the SEU and SES survey instruments used to explore student satisfaction were discussed in Chapter Seven. Student engagement with the SEU survey may have influenced survey response rates (56.7%) and limited the available data for analysis. As discussed in Chapter Four, a range of factors may have influenced student response rates including the frequency and timing of BM unit surveys, survey fatigue, the potential influence of

impact bias, and non-response bias associated with (Grimes et al., 2017, Mendes and Hammett, 2021; Porter & Whitcomb, 2005).

Valuable aspects of the student experience for students from equity group backgrounds should be considered to promote student success. The data to analyse the SESR variable that was provided to the researcher was not attributable to different equity groups. Aspects of these students' experiences would be valuable to add knowledge about their unique experiences and enhance the FYM and BM learning and teaching. The University's Student Evaluation of Teaching survey was not included in this research. Had it been included in addition to SES and SEU data, this data would have provided a more comprehensive view of student satisfaction.

First Nations students represented a small sample size in the quantitative study (17 unique students representing 27 data sources). The researcher consulted with First Nations academics and researchers at the University about the sample size, and these discussions highlighted the importance of the research for First Nations students and encouraged the researcher to proceed despite the small sample size. The researcher was advised that utilising the sample was valuable because the research findings contextualised the experiences of First Nations students, adding new research findings to the BM's effect on First Nations student success.

### ***Qualitative Studies Limitations***

Studies 2 and 3 reported on the lived experiences of 17 students and 16 staff at the University. This sample is not representative of all students or of all staff, nor could those experiences be extrapolated from the findings. However, the sample size was considered appropriate for a doctoral research study to provide adequate and quality

data for the scope of the research and gain an in-depth understanding of the phenomenon (Dworkin, 2012).

Future research could include both larger samples of staff and students and a broader qualitative study with students who had withdrawn from study, or not returned from an absence or leave, to understand the reasons for their decisions. A longitudinal data collection, over a longer timeframe, with a larger student participant sample size, would facilitate greater data and enrich the available qualitative perspectives. Expanding the student participant sample size, to include students who were not retained in study in the second year of their course, would also add valuable aspects about these student perspectives on student success in the FYM and BM. In addition, a broader sample of staff roles that include more professional staff representing a diverse set of student support services would add valuable data on their experiences and the wider support to students.

The survey instrument for student participants asked students if they considered the FYM and BM to be beneficial for students who may be from equity groups. The equity groups were explained and follow up questions were asked to prompt reflection. Most participants adequately responded to this interview question to the best of their knowledge, with their perspectives (either lived or observed) making a valuable data contribution to this study. However, with four equity groups to consider, the question did not always receive a comprehensive response related to each group. In some cases, the student participants were not comfortable commenting on their peers' experiences (e.g., First Nations students) because they felt unable to understand or represent those experiences. A dedicated qualitative study of students from equity group backgrounds to explore their unique experiences would be beneficial.

No issues were encountered with the interviews that were conducted online due to COVID-19. Only one interview had an excessive duration (i.e., a staff participant) beyond the scheduled finish time. The researcher felt obliged to continue the interview with this participant, given their commitment of time to participate in the study, and the staff member's willingness to continue with the data contribution. The duration of the interview did not negatively affect the quality of the data collected.

Limitations and strengths associated with the researcher's positionality are discussed in the next section.

### **Reflections of the Researcher**

Driven by curiosity to understand the educational reform more deeply and share insights from students and staff, the researcher was appreciative of the unique opportunity to combine lived experience, knowledge and new research in her work domain to benefit the education sector. The researcher felt an advantage in her positionality from the start because she had never been a student or teacher involved in the FYM and BM, which established some distance between herself and the research aim and, therefore, enabled a degree of objectivity. This distance grew as the researcher left employment at the University during the final analysis of Study 3 and before the evaluation and interpretation of the integrated findings from all three studies commenced to develop the major findings.

The researcher commenced this research from a position that was sometimes perceived by others to be 'insider researcher'. Insider positionality privileged the researcher to be able to contact University staff easily in some circumstances and meant the researcher understand how and where to access the right data to benefit the research in most cases. Asking clarifying and follow up questions with University staff was key

for the researcher so that assumptions were not made. Self-reflection and the continual self-assessment of the critical distance and objectivity required to undertake the research effectively was front of mind for the researcher when undertaking research activities while still engaged at the University and when interpreting the research data findings within each of the studies (Drake & Heath, 2008; Holmes, 2020).

The researcher's ability to critically locate herself in the research activities and with the participants provided an awareness of how others viewed her positionality at different times (Holmes, 2020). This critical location benefitted the researcher, particularly when collecting data, because the researcher was interrogated repeatedly by the University staff regarding the quantitative data collection, and this interrogation assured the accuracy, quality and security of the data. When conducting interviews, the researcher perceived that the participants viewed her as an outsider to their work or study, which allowed deeper insights into their lived experiences because the participants often gave very detailed responses, explaining their views and experiences.

The researcher was cognisant not to influence the research with her own views when conducting the data collection, analysis, and interpretation of the findings. In the cases where the researcher had familiarity with an interview participant, there was often an immediate indication of trust between the participant and the researcher. Where the participants did not know the researcher, a level of trust had to be established at the commencement of the interview. For all participants, re-confirming the research aim, ethics, confidentiality, and answering any questions about the research or the process they had before the interview commenced established rapport and gave a level of comfort to speak openly about their experiences (both positive and negative). Highly active listening, detailed notetaking and careful analysis were undertaken to ensure the researcher did not attach unintended meaning to the data.



Both groups who volunteered to participate in the study did so with a genuine intent to tell, and enthusiasm for sharing, their story so they may contribute to the research on the FYM and BM. Students took the opportunity to seriously contribute to the research and approached the opportunity with great interest and a sense of establishing a legacy for future students. In the case of staff, they gave thorough accounts of their own experiences, and their observations of students, without reservation about the researcher. The researcher did experience occasions where staff talked in the form of ‘shorthand’ (e.g., “you know how everyone supports each other” (STF\_03)) that often had to be interrogated by the researcher if the participant did not elaborate further, and if the conversation was deemed to be critical to the research aims.

Chapter Eight presents the final thesis chapter and summarises the research findings associated with the overall research aim. This chapter details the recommendations for practice and future research that are drawn from the major findings presented in this chapter, and presents the conclusion drawn from the research findings. In addition, Chapter Eight highlights the significance of this research and its contribution to knowledge and research.

## **Chapter Eight: Summary, Recommendations, and Conclusion**

This chapter summarises this research and the findings associated with the overall research aim, and the recommendations for both practice and future research are presented. The conclusion drawn from the research findings is presented, and highlights the contribution to knowledge and research on HE models for first-year undergraduate student success, the FYE and intensive BM education for large and diverse student populations.

### **Summary**

This research was designed to examine the impact of an Australian University's FYM and BM teaching on first-year undergraduate student academic success, satisfaction, and retention. The three studies within the research represented a mixed methods approach to address the overall research aim and the sub-aims and generated integrated findings with clear evidence of the impact the educational reform had on first-year student success. The findings indicated that students attained higher levels of academic success and were more satisfied overall with their FYE and with teaching quality compared to those in traditional mode. Furthermore, overall student retention was found to be maintained at similar levels compared to the traditional mode by the second year of the FYM and BM following a decline in the first year the educational reform was implemented. The results showed a greater positive increase in retention rates for the domestic student cohort compared to the international student cohort. Overall, these findings are applicable to a large first-year student population across multiple academic disciplines. The findings from the quantitative and qualitative data analysis make a distinct contribution to research on intensive mode education,

demonstrating the positive impact that a four-week BM unit delivery format can have on first-year student success.

This research also identified the specific design and delivery principles of a BM learning and teaching format that have most impact on the enhanced student success outcomes. The findings indicated that student-centred, focused and active learning in small classes, undertaking one unit at a time, facilitated relationships that engaged teachers and students to create a successful learning and teaching partnership. These key BM features are at the core of the educational reform's positive impact on student success. In addition, the whole-of-institution approach to a student-centred FYE both inside and outside the classroom provided the necessary support for students to succeed.

A significant finding of this research was that there was no negative impact on students from equity group backgrounds following the introduction of the FYM and BM. Overall, this educational reform supported students from a range of equity group backgrounds to be more successful in their first-year of undergraduate education.

As one part of a wider reform to first-year undergraduate education, the particular BM format used by this University provided the block scheduling framework from which these enhancements to learning and teaching could be enabled. The application of this BM format does not represent a silver bullet for other institutions. Replication of the BM format without adequate planning of the learning, teaching, assessment, and wider student support strategies must be undertaken to support any transition from the traditional mode. Collaboration and co-design with important key stakeholders, including staff and students, is essential to ensure the outcomes of any change are successful.

The major findings and recommendations of this research also highlight that, for this University, these changes do not constitute a ‘set and forget’ educational reform. Flexibility, feedback, evaluation, refinement, continuous improvement, and continued research are paramount to sustain the success of this educational reform beyond the first two years of implementation.

## **Recommendations**

The mixed methods approach to this research strengthened the evidence from which the following recommendations for practice and future research are made. These recommendations can guide future approaches to enhance first-year student success and BM learning and teaching.

### ***Recommendations for Practice***

The following six recommendations for practice are based on the major findings of this research.

#### **Maintain BM Design Principles Considered Essential for Student Success**

This study has found that, to promote first-year student success, the essential design principles of this BM format are the focused, active and highly engaged learning and teaching environment, facilitated by small classes where students learn in person and via one unit at a time. It is evident from this research that these essential characteristics of BM design should be preserved for first-year students to succeed in their undergraduate courses, and considered by institutions planning a transition from traditional mode to BM.

### **Develop a Continuous BM Evaluation and Improvement Program**

A complex institutional environment requires an effective mechanism to gather and analyse continuous feedback and the sharing of ideas to inform learning and teaching practices. Students and staff reported experiences of inconsistency in the application of BM between different units and/or teaching staff, which influenced students' satisfaction with a unit. Staff reported instances of staff not being fully onboard with the transition away from traditional mode learning and challenges associated with insufficient planning and onboarding of sessional staff. A continuous evaluation and improvement program for the BM delivery format, which authentically captures and connects student and staff voices from varying channels, is recommended to reduce any constraints and enhance learning and teaching. This program should include engagement activities with students beyond surveys and institutional data metrics to critically explore student success and further enhance their learning experience.

### **Renew the Approach to Evaluating Student Satisfaction and Retention**

As part of the recommended program for continued BM evaluation and improvement, the SEU survey program and measures of retention should be transformed in terms of timing, frequency and purpose to suit both BM education and the changed delivery format. Both areas of student success are non-linear and complex and require new ways of evaluating student satisfaction for four-week block units and student retention between frequent and shorter block teaching periods. In addition, the timing of the SEU release appeared to occur before a block unit had concluded and potentially before results were released. This timing issue, and the content of the SEU survey, appear to be unchanged since the transition from traditional mode learning and teaching, and a renewed approach is warranted. This recommendation is also made in

light of the further changes made since BM was implemented, to deliver education through online/blended delivery modes that also warrants a renewed approach these surveys.

Developing a shared understanding of what has worked well for some cohorts compared to others, based upon exploring the lived experiences of staff and students, along with their quantitative unit evaluation surveys (despite the limitations of these surveys), may assist with the improvement of inconsistent student satisfaction evaluations and rates of retention. Consistency in rates of improvement in student retention across cohorts and disciplines may also be gained through a closer partnership with students in the design and delivery of learning and teaching. This approach may validate current approaches to BM practice and engage students in confidently putting forward their views and experiences (Kahn & Anderson, 2019) around potential intervention strategies.

The limitations of the QILT SES survey for first-year BM education were discussed in Chapter Seven and should be used to inform future practice associated with administering this national survey for universities not delivering traditional semester-based education. In addition, the University should consider interpretation of the data in the context of their BM format, in particular the sector benchmarking results for the reasons detailed previously in Chapter Seven.

### **Recognise and Address Student Reservations and Perceived BM Constraints**

Understanding student reservations or concerns about BM at various stages of the learning cycle may assist institutions to better inform students about the benefits of BM, and/or to review and improve certain aspects of the BM design. For example, the lack of part-time study options, scheduling inflexibility for students that increase the time

demands and intensity of learning (e.g., for caring or employment responsibilities), the special consideration process for assessments, and the challenges with group work in BM, may all force students to ‘persevere’ with their studies in ways that are not conducive to a positive or successful learning experience, to their retention in study, or to the preservation of their wellbeing. It is possible that this impacts student retention through higher frequencies of formal and informal leave of absence that can lead to disengagement from study (Harvey et al., 2022), with more regular opportunities to disengage or withdraw from study in a four-week BM unit enrolment schedule. Potentially, this impact may lead to longer term retention issues, including block-to-block retention and disengagement, requiring universities to direct more resourcing to re-attract and re-engage enrolled students back to study (Harvey et al., 2022).

Supporting students with flexible study options, which respond to the constraints they face with an intensive BM unit design and their external commitments, may lead to more positive impactful outcomes for students and their institutions based on their different contexts (Swain, 2016). In addition to flexible study options, other successful BM formats could be examined to consider adjustments to the four-week block duration that may offer some flexibility and mitigate intensity issues for students. For example, the five-week BM format used in one UK university for undergraduate HE (Buck & Tyrrell, 2022), which may also provide support and benefit BM teachers.

### **Explore the Impact of Changes to BM Delivery Principles**

This research has discussed the challenges for students learning in BM via online or remote delivery modes. These changes from an in-person and on-campus delivery format started occurring in response to COVID-19 lockdowns to enable the continuity of education services during those periods. The feedback from student participants in

this research indicated that they had reservations about, and less satisfaction with, the online block delivery mode in comparison to their prior positive experiences in the first year of study when BM was delivered on campus and in person (i.e., before the pandemic). Maintaining online or remote learning and teaching practices that are not suitably adjusted or designed for BM may erode the positive experiences of BM that have been associated with in-person and interactive learning in small classes taught on campus. Furthermore, unsuitable online BM practices may negatively influence student wellbeing. Specific exploration of students' perceptions of how effectively BM is delivered in an online delivery mode should be considered, and the quality of their learning experience should be further investigated. Changes to the SEU survey should also be considered to capture these changes to delivery modes and gather student feedback, as previously discussed.

### **Enhance Understanding of Students from Equity Group Backgrounds**

This research supports the need for a more progressive understanding of equity (Walker-Gibbs et al., 2019). Student success should be considered uniquely within each equity group context to inform learning and teaching practice, and the associated support service requirements. The special consideration process for assessments outlined earlier in these recommendations should be reviewed in the context of students from equity group backgrounds, with their experiences and feedback of the process gathered to inform improvements that better support students studying in BM.

Consideration should also be given to the potential multiplier effect that compounds disadvantage (Harvey et al., 2016) for students from more than one equity group background. Opportunities to improve BM learning and teaching practices, first-year



transition, BM design, and provide better support overall to these students may support their overall wellbeing and promote their success.

### ***Recommendations for Future Research***

The following three recommendations for future research are based on the major findings of this research.

#### **Longitudinal Analysis of Student Success in BM Undergraduate Courses**

This study provides the foundation for further longitudinal research to analyse BM learning and teaching in higher year levels of undergraduate courses beyond the first year. Considering student success outcomes at an overall course level and the reflections and perceptions of students post the final year of their course would be valuable. It would also be beneficial to examine the experiences of students learning in BM education within their DBCs, in addition to the multi-disciplinary FYC that the current research examined. Furthermore, a longitudinal study of BM undergraduate courses would benefit from a larger staff sample size to provide valuable data. This broader range should include academic staff and senior leaders from the DBCs and professional staff representing a more diverse range of student support services.

#### **Longitudinal Analysis of Student Retention and BM Factors Influencing Attrition**

A longitudinal study of the students who are not retained in BM study would be beneficial to give an understanding of the constraints these students may have experienced in relation to BM. Analysis of institutional data associated with students who formally withdrew or never returned to study should be conducted and the results supplemented with qualitative data collected from a sample of those students via interviews. Appropriate support systems should be made available for participating

students in case they are exposed to recalling negative experiences that led to their discontinuation in study. Without this research, it is not entirely clear who may be 'left behind' in the intensive BM delivery format or the factors that negatively influence student retention. This research and the student voices could provide valuable insights into barriers that could be addressed to support students and promote their retention in study between block units or course years.

The research should also test for any phenomenon of first-year students transitioning to other universities in their second year of study. It's possible that the FYC, the BM, and the University's mostly open access entry to courses may present a good foundation for students to confidently transition to university before transitioning out in second year to another university. This future research can helpfully prompt thinking around unintended impacts of the FYM and FYC, and help assess any potential impact on institutional student retention in higher course year levels.

### **Research Into BM Graduate Outcomes and Employer Perspectives**

Future research should examine the outcomes of graduates in their professional fields to assess to what extent the BM was an effective learning and teaching model that also improved a range of graduate outcomes. One approach could examine the perspectives and experiences of BM graduates once employed in their profession, to investigate their retention of course knowledge and their proficient application of that knowledge and/or technical capability in the workplace. A survey instrument could collect quantitative and qualitative data that explores these areas of graduate capability with a combination of rating scales, closed-ended questions, and open-ended questions. The potential data sample for the survey recruitment could be large, considering the approximate commencing annual student EFTSL (~4,000 students) for each year BM has been

operating with the FYC (currently six years). Focus groups with participating graduates would enable a rich exploration of their experiences and supplement the survey.

Occupations requiring applied skills and technical knowledge (e.g., nursing, osteopathy, midwifery, engineering, teaching) would ideally be included.

A second approach could investigate the same areas outlined above but from the perspectives and experiences of employers of BM graduates, providing a comprehensive understanding of perceived graduate quality and capability. Similar mixed methods could be adopted. The target sample may be smaller and reliant on referral information from graduate participants in the first approach, to identify organisations with which graduates are currently employed. The study of a range of industry sectors and occupation types is essential to consider graduate capabilities by courses and academic discipline.

The third approach could use a comparative study to investigate whether the BM improved the quality of graduates in the workplace compared to those graduates who studied in traditional mode in previous years. This targeted research would involve a cross-sectoral employer survey, incorporating workplaces that routinely employ graduates of the University in both traditional mode and BM. The employer and associated student sample may be smaller than the previous approaches but would provide rich insights.

## **Conclusion**

This research contributes to an increasing body of literature and research on first-year student success and intensive modes of HE. Furthermore, this research contributes to the emerging evidence that highlights how innovative reforms of first-year education and BM learning and teaching can improve student academic success, satisfaction, and

retention for large student populations. Notwithstanding the limitations of this research and recommendations for future research, this research has evidenced that the major institutional-wide reform of first-year education through the FYM and BM has improved student success and the FYE.

Sir Ken Robinson (2011) stated that “transforming education is not easy but the price of failure is more than we can afford, while the benefits of success are more than we can imagine” (p. 283). This higher-order goal of educational change aligns with the current research outcomes whereby the transformational effect this educational reform created was a viable and holistic alternative to traditional mode education that is student-centred, inclusive of students from diverse and disadvantaged backgrounds, and effective at improving the FYE and student outcomes. In an applied context, the research findings will support and inform the HE sector, educators, governments, and policymakers when they are considering new approaches to first-year education that can enhance the FYE, transition HE from traditional mode to intensive BM learning and teaching and improve educational outcomes, for large and diverse student populations in international contexts.

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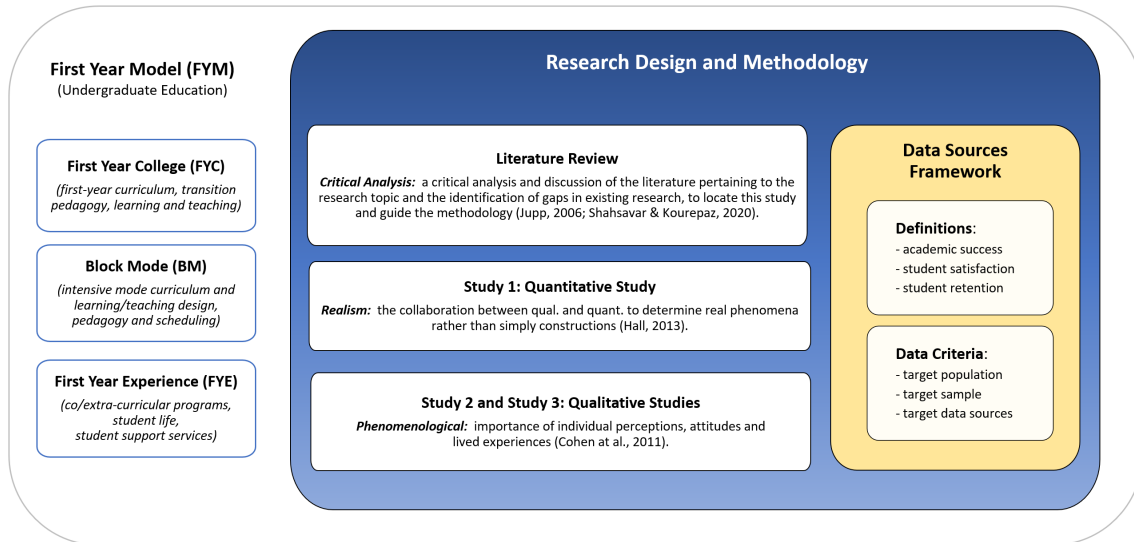
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## Appendices

## Appendix A: Research Framework



## Appendix B: Agreement for Special Access to Information (SMS and BIS)

### AGREEMENT FOR SPECIAL ACCESS TO INFORMATION

#### SPECIAL ACCESS TO INFOVU: ANALYST-LEVEL DATA

Date: 21 June 2021

Student: Naomi Dempsey (ISILC)

Student ID: s3686862

**Purpose:**

Collect data as a student researcher undertaking a PhD program at Victoria University.

Project explanation:

*This doctoral study aims to develop a research framework to examine the dual approach of a revised First Year Model combined with Block Mode delivery and its impact on student academic success, satisfaction and retention. The study will expand the evidence base on the success factors of Block Mode learning and teaching and will add new knowledge globally on the application of this delivery mode for larger student populations. The study has a two-phased design using both quantitative and qualitative methods to examine the aims and explore the overall phenomena of the delivery mode across multiple academic disciplines and equity groups.*

Access to specific information in INFOVU and datasets held by Data Insight (analyst-level information not normally available to VU staff), is necessary for a research project (attach details, including requested data).

Please refer to Attachment 1 (page 3).

Privacy of student and staff data is protected by legislation, policy and procedures at VU. The researcher acknowledges this access will give access to sensitive and confidential information, and agrees to take extra precautions as a result, in line with appropriate legislation and VU's:

- [IT Security Policy](#)
- [IT Security – User Access Management Procedure](#)
- [Privacy Policy, including Privacy Appendix 1 and 2](#)
- [Privacy Procedure](#)
- [Privacy Security Breach Procedure](#)

Ethics approval details are:

~~HRE20-179~~

Project name:

Impact of Victoria University's First Year Model and Block Mode teaching on student academic success, satisfaction and retention

Ethics approval details:

Please refer to attached email evidencing Ethics approval notification from VU Research.

I acknowledge I have read and understand the VU policies relating to data security and privacy, and understand access to analyst-level information comes with responsibilities for maintaining data security and privacy.

Signed: 

Date: 21 June 2021

**For further information on the data request, please contact:**

Naomi Dempsey  
Student Researcher  
Victoria University  
Tel: 0404 232 550  
Email: [Naomi.Dempsey@live.vu.edu.au](mailto:Naomi.Dempsey@live.vu.edu.au)

**The student researcher's Primary Supervisor at VU is:**

Professor Anthony Watt  
Chief Investigator  
Victoria University  
Tel: 03 9919 4119  
Email: [Anthony.Watt@vu.edu.au](mailto:Anthony.Watt@vu.edu.au)



## Attachment 1: Data Requests

### 1. Student Evaluation of Unit (SEU) dataset

SEU data is requested for the below units of study, for each of the listed teaching periods (where the unit was delivered).

The data extract must include the rating from the university's five-point Likert scale that students responded with, for each of the Student Evaluation of Unit questions, for each unit of study in each teaching period (as below):

1. Overall, I am satisfied with the quality of this unit.
2. The expectations were clear.
3. The activities helped me to learn.
4. The learning resources were relevant and up to date.
5. The assessment tasks clearly evaluated the learning outcomes.
6. The workload in this unit was reasonable.

HE Unit Code	HE Unit Title	HE Course	Teaching Periods
HNB1103	PROFESSIONAL STUDIES 1	HBNS - BACHELOR OF NURSING	2017/1
ABA1003	INTRODUCTION TO SOCIOLOGY	ABAB - BACHELOR OF ARTS	2018/1B1
EEC1101	PERSONAL AND PROFESSIONAL LEARNING	EBED - BACHELOR OF EDUCATION (P-12)	2018/1B2
AEK1203	INDIGENOUS HEALTH AND WELLBEING	HBNS - BACHELOR OF NURSING	2018/1B3
BEO1105	ECONOMIC PRINCIPLES	BBNS - BACHELOR OF BUSINESS	2018/1B4
AHE1101	STRUCTURAL KINESIOLOGY	ABHF - BACHELOR OF SPORT SCIENCE (EXERCISE SCIENCE)	2019/1B1
BCO1102	INFORMATION SYSTEMS FOR BUSINESS	BBNS - BACHELOR OF BUSINESS	2019/1B2
BLB1114	LEGAL RESEARCH METHODS	BLAW - BACHELOR OF LAWS	2019/1B3
RBM1174	HUMAN PHYSIOLOGY	ABHF - BACHELOR OF SPORT SCIENCE (EXERCISE SCIENCE)	2019/1B4
BLB1101	AUSTRALIAN LEGAL SYSTEM IN CONTEXT	BLAW - BACHELOR OF LAWS	
NIT1103	COMMUNICATION AND INFORMATION MANAGEMENT	NBIT - BACHELOR OF INFORMATION TECHNOLOGY	
NIT1102	INTRODUCTION TO PROGRAMMING	NBIT - BACHELOR OF INFORMATION TECHNOLOGY	

### 2. Student Experience Survey (SES) dataset

SES data is requested for the following survey years:

- 2017
- 2018
- 2019

The data extract needs to contain the "undergraduate commencing" cohort for each of the years above and must include the rating / score for each question within the following six focus areas, as well as the overall focus area:

1. overall quality of educational experience
2. teaching quality
3. learner engagement
4. learning resources
5. student support
6. skills development

The student researcher will be focusing the analysis on the % *Positive Response* ratings for each question / overall focus area.

## Appendix C: Data Request Guide for SMS Data Sources Collection

Step 1: Unit of Study Data Framework for Collecting Student Data			
Unit Code	Unit Title	Course	Teaching Periods (9 in total)
HNB1103	PROFESSIONAL STUDIES 1	HBNB - BACHELOR OF NURSING	2017/1, 2018/1B1, 2018/1B2, 2018/1B3, 2018/1B4, 2019/1B1, 2019/1B2, 2019/1B3, 2019/1B4
ABA1003	INTRODUCTION TO SOCIOLOGY	ABAB - BACHELOR OF ARTS	2017/1, 2018/1B1, 2018/1B2, 2018/1B3, 2018/1B4, 2019/1B1, 2019/1B2, 2019/1B3, 2019/1B4
EEC1101	PERSONAL AND PROFESSIONAL LEARNING	EBED - BACHELOR OF EDUCATION (P-12)	2017/1, 2018/1B1, 2018/1B2, 2018/1B3, 2018/1B4, 2019/1B1, 2019/1B2, 2019/1B3, 2019/1B4
AEK1203	INDIGENOUS HEALTH AND WELLBEING	HBNB - BACHELOR OF NURSING	2017/1, 2018/1B1, 2018/1B2, 2018/1B3, 2018/1B4, 2019/1B1, 2019/1B2, 2019/1B3, 2019/1B4
BE01105	ECONOMIC PRINCIPLES	BBNS - BACHELOR OF BUSINESS	2017/1, 2018/1B1, 2018/1B2, 2018/1B3, 2018/1B4, 2019/1B1, 2019/1B2, 2019/1B3, 2019/1B4
AHE1101	STRUCTURAL KINESIOLOGY	ABHF - BACHELOR OF SPORT SCIENCE (EXERCISE SCIENCE)	2017/1, 2018/1B1, 2018/1B2, 2018/1B3, 2018/1B4, 2019/1B1, 2019/1B2, 2019/1B3, 2019/1B4
BCO1102	INFORMATION SYSTEMS FOR BUSINESS	BBNS - BACHELOR OF BUSINESS	2017/1, 2018/1B1, 2018/1B2, 2018/1B3, 2018/1B4, 2019/1B1, 2019/1B2, 2019/1B3, 2019/1B4
BLB1114	LEGAL RESEARCH METHODS	BLAW - BACHELOR OF LAWS	2017/1, 2018/1B1, 2018/1B2, 2018/1B3, 2018/1B4, 2019/1B1, 2019/1B2, 2019/1B3, 2019/1B4
RBM1174	HUMAN PHYSIOLOGY	ABHF - BACHELOR OF SPORT SCIENCE (EXERCISE SCIENCE)	2017/1, 2018/1B1, 2018/1B2, 2018/1B3, 2018/1B4, 2019/1B1, 2019/1B2, 2019/1B3, 2019/1B4
BLB1101	AUSTRALIAN LEGAL SYSTEM IN CONTEXT	BLAW - BACHELOR OF LAWS	2017/1, 2018/1B1, 2018/1B2, 2018/1B3, 2018/1B4, 2019/1B1, 2019/1B2, 2019/1B3, 2019/1B4
NIT1103	COMMUNICATION AND INFORMATION MANAGEMENT	NBIT - BACHELOR OF INFORMATION TECHNOLOGY	2017/1, 2018/1B1, 2018/1B2, 2018/1B3, 2018/1B4, 2019/1B1, 2019/1B2, 2019/1B3, 2019/1B4
NIT1102	INTRODUCTION TO PROGRAMMING	NBIT - BACHELOR OF INFORMATION TECHNOLOGY	2017/1, 2018/1B1, 2018/1B2, 2018/1B3, 2018/1B4, 2019/1B1, 2019/1B2, 2019/1B3, 2019/1B4

### Step 2: Student Enrolment Data Collection Requirements (for Units listed at Step 1)

Student Data Field Name
PERSON_ID
E402_SURNAME
E403_FIRSTNAME
E469_SUBURB
E470_STATE
E413_POSTCODE
E471_COUNTRY
FINAL_EMAIL1
FINAL_EMAIL2
FINAL_EMAIL3
FINAL_PHONE1
FINAL_PHONE2
FINAL_PHONE3
SEX
BIRTH_DT
H_HIGHEST_ATTAIN_DESC
LANGUAGE_NESB_IND
LANGUAGE_DESC
LANGUAGE_MINOR_GRP
LANGUAGE_MAJOR_GRP
BIRTH_COUNTRY_OVERSEAS_IND
BIRTH_COUNTRY_MAJOR_GRP
BIRTH_COUNTRY_MINOR_GRP
BIRTH_COUNTRY_DESC
COMBINED_ABORIG_TORRES_DESC
ATAR_SCORE
H_HIGHEST_PRNT_GRDN_HEA_DESC
DISABILITY_IND
WESTERNALITY_DESC
SIEFA_AUST_ECONOMIC_STATUS
COURSE_GROUP_CD
COURSE_GROUP_TITLE
LEVEL2_ORG_SHORT_TITLE
COURSE_TYPE_DESC
AQF_LEVEL
COURSE_COLLEGE
COURSE_LOCATION_DESC
COURSE_ATTEMPT_STATUS
COURSE_CD
COLLEGE_UNIT
UNIT_CD
UNIT_TITLE
CALENDAR_TYPE
ACAD_YR
RESULT_TYPE
MARK
UNIT_ATTEMPT_STATUS_DESC
COMMENCING_STUDENT_IND_CSE_GRP
CSE_GRP_ATTEMPT_STATUS
BASIS_FOR_ADMISSION_DESC
FOE_COURSE_MAJOR
FOE_COURSE_MINOR
FOE_COURSE_DESC
ALUMNI_DO_NOT_MAIL
CATEGORY_INTL/DOM

## **Appendix D: Detailed Procedures - Data Access and Targeted Sampling**

### **Procedures**

#### **Data Access Procedure**

The BIS data was accessed and extracted via the ‘HE Unit of Study Load Trend’ dashboard. The ‘Unit Enrolments per Semester’ report functionality was used within the dashboard to filter the data. Report filters (see Table 1 below) were applied to extract and analyse 2017 units for the Semester 1 teaching period for commencing students located onshore and at all Melbourne campuses where the DBCs offered the units.

#### ***Step 1: Group 1 (TMG)***

In this first data access step, data was accessed for each of the DBCs as there was an assumption that the FYC was not configured as an organisational unit and first-year enrolment data associated with the FYC in the BIS for the 2017 academic year (due to the FYC not commencing operation until 2018). A review of relevant course structures (when the data was accessed for each of the DBCs) found that first-year units were not included in the data sample. It was also found that the units did not always contain first-year students, despite a commencing student filter being applied. A closer review of the reporting functionality and available report filter options for 2017 organisational units (i.e., colleges) was undertaken. It was discovered that the FYC as an organisational unit had been configured in the BIS and that the University applied the first-year unit data retrospectively for the 2017 reporting year. This retrospective application of the 2017 first-year units to the FYC appeared to have enabled the University to report and compare baseline data in future years after the implementation of the FYM.

The outcomes of this data access process were discussed, replicated, and reviewed with the Principal Supervisor to guide the second data access process that provided the correct final data sample that resembled a set of anticipated first-year units. The data was verified over several meetings with the Principal Supervisor to ensure accuracy with the research aims. Finally, the data was exported to a Microsoft Excel (MS Excel) workbook as a master data file for storage and initial analysis of the units to determine the target sample.

The extract of the BIS report query and filters is detailed in Table 1. This query and the applied filters were used to analyse the units from Group 1 of the target population and determine the target sample.

**Table 1**

*BIS Query – Group 1 (TMG, 2017) Unit Enrolments*

BIS Report Source (extract)	BIS Report Filters (extract)
Report Name: HE Unit of Study Load Trend (Unit Enrolments per Semester)	ULI – Location is equal to CITY FLINDERS, CITY KING CAMPUS, CITY QUEEN STREET, FOOTSCRAY NICHOLSON, FOOTSCRAY PARK, ST ALBANS, WERRIBEE and
Report Description: This report provides Unit of Study information per semester for a given year. [Report ID: EDU14]	
Report Data Currency: Dataset University SMS, 14-03-2021 23:45:03	UI – [CUR]: Level 2 Org is equal to FIRST YEAR COLLEGE, and
Report Notes: Students may be counted in multiple sections of the same table but will only be counted once in the totals. Therefore, totals may be lower than the sum of their parts. For example, in a table showing students by postcode & academic year, it is possible for a student to have moved between multiple postcodes within a	CII – Calendar Alt Acad Period is equal to 2017/1, and  ULI – Onshore Indicator is equal to Y, and  UAI – Reportable Indicator is equal to / is in Y, and

BIS Report Source (extract)	BIS Report Filters (extract)
single year. Therefore the student would be counted within each postcode they had moved to. However when considering the total number of students contained within the dataset, each student is only counted once.	<p>TLDI – Current Load Year Difference Range is between – 4 and 1, and</p> <p>TLDI – Load Distribution Year is equal to 2017, and</p> <p>CAI – Course Group Commencing or Continuing is equal to Commencing Student, and</p> <p>CI – Sector Code is equal to HE.</p>

### ***Step 2: Group 2 (IBG)***

The BIS report query and filters used to access the units from Group 2 of the target population for further analysis to determine the target sample are detailed in the below report extract (see Table 2). The same data access procedure for Group 1 (above) was used, with changes made to the report filter to reflect the academic year and block teaching periods (not semesters). The ‘academic period’ filter was adjusted to access data on units taught for the changed definition of ‘Semester 1’ to include the equivalent set of block units (i.e., 1B1, 1B2, 1B3 and 1B4).

### **Table 2**

#### *BIS Query – Group 2 (IBG, 2018) Unit Enrolments*

BIS Report Source (extract)	BIS Report Filters (extract)
<p>Report Name: HE Unit of Study Load Trend (Unit Enrolments per Semester)</p> <p>Report Description: This report provides Unit of Study information per semester for a given year. [Report ID: EDU14]</p>	<p>ULI – Location is equal to CITY FLINDERS, CITY QUEEN STREET, FOOTSCRAY NICHOLSON, FOOTSCRAY PARK, ST ALBANS and</p> <p>UI – [CUR]: Level 2 Org is equal to FIRST YEAR COLLEGE, and</p>

BIS Report Source (extract)	BIS Report Filters (extract)
<p>Report Data Currency: Dataset University SMS, 14-03-2021 23:45:03</p> <p>Report Notes: Students may be counted in multiple sections of the same table but will only be counted once in the totals. Therefore, totals may be lower than the sum of their parts. For example, in a table showing students by postcode &amp; academic year, it is possible for a student to have moved between multiple postcodes within a single year. Therefore the student would be counted within each postcode they had moved to. However when considering the total number of students contained within the dataset, each student is only counted once.</p>	<p>CII – Calendar Alt Acad Period is equal to 2018/1B1, 2018/1B2, 2018/1B3, 2018/1B4, and</p> <p>ULI – Onshore Indicator is equal to Y, and</p> <p>UAI – Reportable Indicator is equal to / is in Y, and</p> <p>TLDI – Current Load Year Difference Range is between -4 and 1, and</p> <p>TLDI – Load Distribution Year is equal to 2018, and</p> <p>CAI – Course Group Commencing or Continuing is equal to Commencing Student, and</p> <p>CI – Sector Code is equal to HE.</p>

### ***Step 3: Group 3 (SBG)***

The BIS report query and filters used to access the units from Group 3 of the target population for the final step in the analysis that determined the complete target sample to meet the research aims are detailed in the below report extract (see Table 3). The same data access procedure for Group 2 (above) was used, with changes to the report filter to reflect the academic year and teaching periods.

**Table 3***BIS Query – Group 3 (SBG, 2019) Unit Enrolments*

BIS Report Source (extract)	BIS Report Filters (extract)
<p>Report Name: HE Unit of Study Load Trend (Unit Enrolments per Semester)</p> <p>Report Description: This report provides Unit of Study information per semester for a given year. [Report ID: EDU14]</p> <p>Report Data Currency: Dataset University SMS, 14-03-2021 23:45:03</p> <p>Report Notes: Students may be counted in multiple sections of the same table but will only be counted once in the totals. Therefore, totals may be lower than the sum of their parts. For example, in a table showing students by postcode &amp; academic year, it is possible for a student to have moved between multiple postcodes within a single year. Therefore the student would be counted within each postcode they had moved to. However when considering the total number of students contained within the dataset, each student is only counted once.</p>	<p>ULI – Location is equal to CITY FLINDERS, CITY QUEEN STREET, FOOTSCRAY NICHOLSON, FOOTSCRAY PARK, ST ALBANS, WERRIBEE, and</p> <p>UI – [CUR]: Level 2 Org is equal to FIRST YEAR COLLEGE, and</p> <p>CII – Calendar Alt Acad Period is equal to 2019/1B1, 2019/1B2, 2019/1B3, 2019/1B4, and</p> <p>ULI – Onshore Indicator is equal to Y, and UAI – Reportable Indicator is equal to / is in Y, and</p> <p>TLDI – Current Load Year Difference Range is between -4 and 1, and</p> <p>TLDI – Load Distribution Year is equal to 2019, and</p> <p>CAI – Course Group Commencing or Continuing is equal to Commencing Student, and</p> <p>CI – Sector Code is equal to HE.</p>

## Sequential Targeted Sampling Procedures

### *Step 1: Highest Unit Attempts (2017)*

The data accessed was consolidated into one MS Excel workbook. As the first step in creating the target sample, filters were applied to the 2017 Semester 1 unit attempt data

to sort data from highest to lowest, so that the highest number of unit attempts could be identified against the unit codes.

***Step 2: Units Taught Subsequently in Sequential Years (2018-2019)***

The selected courses and units were then assessed to confirm that each unit was taught to commencing first-year undergraduate students in the equivalent BM Semester 1 teaching periods for 2018 and 2019, using the data accessed for the 1B1-1B4 periods in each year. Where a unit was not taught in both 2018 and 2019 in BM by the FYC, the unit was removed from the selection. In addition, the unit with the next highest number of unit attempts was reviewed against the data criteria and selected if the criteria were met. This process was repeated for each of the highest unit attempts until a set of 12 units that met the data criteria was confirmed.

***Step 3: Course and Highest Unit Attempt Verification***

Following validation that the units selected were taught in all three consecutive years, the units were compared at the course level through a manual comparative assessment using BIS data. The aim of this procedure was to verify that:

- (a) the highest unit attempts in a unit were for a HE undergraduate bachelor-level degree; and
- (b) to interrogate the range of courses and DBCs that the units were associated with in the 2017 year, to assign two units to each academic discipline to create the target sample.

This was an important procedure, used to ensure that the units that appeared to be the highest enrolled were, in fact, associated with an appropriate course for this research and not a range of courses. For example, while the unit code ABA1003 reported 400 enrolments in 2017, on further analysis at the unit level in the BIS, this number was



found to be the total enrolments across 12 different courses and a range of academic disciplines. As the University is also a dual-sector institution offering HE diplomas from its vocational education provider, the data was reviewed carefully to ensure the data criteria relevant to the research aims were met.

This comparative assessment of the data at the unit level was conducted via the BIS ‘Unit and Course Summary’ report within the ‘HE Unit of Study Load Trend’ dashboard. This process confirmed all course offerings for the units, and the process was repeated for each highest unit attempt until a set of 12 units that met the data criteria was confirmed. During the process, it was observed that the first-year BM units from 2018 onwards were entirely discrete for FYC and first-year units of undergraduate bachelor courses, providing a more efficient comparative analysis process for future years. On completion of the above procedures, the final target sample was confirmed.

## Targeted Student Data Characteristics Procedure

### *Step 1: Targeted Student Data Characteristics*

The targeted student data characteristics procedure detailing the data filter and inclusion descriptions is below in Table 4.

**Table 4**

#### *Targeted Student Data Characteristics Procedure*

Targeted Student Data Characteristics	Data Filter and Inclusion
Unit completion	A review of ‘result type’ and ‘unit attempt status’ data fields was conducted. Only student enrolment records in the data sources that

Targeted Student Data Characteristics	Data Filter and Inclusion
Commencing course year and first-year studies	<p>indicated students who had genuinely completed the unit were included. The following filters were applied:</p> <ul style="list-style-type: none"> <li>• all student data sources with a ‘completed’ unit attempt status were included in the analysis; and</li> <li>• all student data sources with a ‘discontinued’ unit attempt status were not included in the analysis. This included data sources excluded for ‘WN’ (withdrew without academic penalty) and ‘WD’ (withdrew after the last day to withdraw from the unit without academic penalty).</li> </ul> <p>A review of the ‘commencing student group’ and ‘academic year’ fields was conducted, relevant to the criteria for Groups 1-3. Data associated with first-year students and first-year units varied prior to the introduction of the FYC in 2018. It was only in 2018, with the introduction of the FYC, that units became classified in University systems as first-year units and aligned to commencing students, courses and first-year study. The process below was applied to ensure the appropriateness of the data sources to meet the criteria for the target population and the research aims.</p> <p>The data sources were filtered to ensure only students commencing studies in their course for each group within the target population and undertaking a unit as a first-year student, were included. The following filters were applied:</p>

Targeted Student Data Characteristics	Data Filter and Inclusion
	<ul style="list-style-type: none"> <li>• only student records with a ‘commencing student group’ year of 2017, 2018, or 2019 were included in the data sources; and</li> <li>• all of the records that met the ‘commencing student group’ criteria were aligned with data that met an equivalent ‘academic year’ criteria of 2017, 2018, or 2019 for their commencing student group to ensure only first-year students were included in the data sources for Groups 1-3.</li> </ul>

### ***Step 2: Student Equity Group Data Sources***

The student equity group data sources were identified and accessed within the target population. Both domestic and international students were considered in all equity group data sources, except for LSES, for the reasons outlined below.

All equity group indicator data was accessed as a targeted student data characteristic within the overall data sources, from the information reported at student enrolment and recorded in the University SMS for reporting data to the Australian Government in the HE data collection (DESE, 2020a). For all data associated with equity groups, student records with null data fields (i.e., where ‘no information’ or inconsistent data were recorded on the enrolment record in the SMS) were not considered in the sample and analysis of students from equity groups. The method to assess and identify equity group indicators within the data sources is outlined below.

*(a) Students Identifying as SWD*

The data sources included a field that indicated if students self-reported a disability at the time of their course enrolment, which may affect their studies. The University applied an indicator on each data source to indicate student responses to this enrolment question (i.e., students with a self-reported disability were recorded with a ‘Y’ indicator in the data).

*(b) Students from a NESB*

The data sources included a field that indicated students who use a language other than English at their home. This information was self-reported by students at the time of their course enrolment with an indication of other languages provided. In addition, the University applied a numerical NESB indicator to each data source to indicate student responses to this enrolment question and recorded the language description (e.g., the English indicator was recorded as ‘0001’ in the data).

*(c) Students from LSES background*

The data sources included a field with postcode data that enabled the researcher to identify and classify students from LSES backgrounds. LSES participants in this study were identified as domestic students whose reported residential address had a postcode ranked in an LSES area. The 2016 Australian Bureau of Statistics’ (ABS) Socio-Economic Indexes for Areas (SEIFA) was used to rank student participant data to socio-economic advantage and disadvantage. The ABS data indexes are based on ‘information from the five-yearly Census of Population and Housing’ (Australian Bureau of Statistics [ABS], 2018).

The postcode measure was used for this study and is “based on the postcode of the student’s reported residential address, with the socio-economic value derived from

the SEIFA Index of Education and Occupation for postal areas” (DESE, 2020b). The residential postcode data of domestic students only was transformed into three new categorical variables of socio-economic status, using deciles ranked at the national level (ABS, 2018) from the ‘Postal Area, Indexes, SEIFA 2016’ (ABS, 2018), as follows:

- Low socio-economic: SEIFA deciles 1–3 (bottom 25% of the population)
- Middle socio-economic: SEIFA deciles 4–7 (middle 50% of the population);  
and
- High socio-economic: SEIFA deciles 8–10 (top 25% of the population).

SEIFA decile rankings divide areas into ten groups of equal size dependant on their score (ABS, 2018), with the lowest area commencing with a decile number of 1. The postcode data transformation was conducted in MS Excel using the vertical data lookup function (i.e., VLOOKUP) (Microsoft, 2018). This process was conducted to prepare the data prior to importing it into the statistical software platform (Statistical Package for the Social Sciences (SPSS)), which was used to analyse data for statistical significance (Norris et al., 2012; Pallant, 2003).

A small number of domestic student data sources were unable to be classified to a socio-economic status due to missing postcode information within the enrolment data stored on the University SMS. These data sources were not considered in the sample and analysis of the LSES equity group.

International students were not considered in the LSES data. During the review of the data sources, it was discovered that postcode information alone was not reliable to accurately identify those students studying onshore as domestic or international. Postcodes were associated with the Australian residence at the time of the students’ study or were null in some fields. The researcher requested an additional data set from

the University for the unique student identifiers associated with the target population and target sample, with an additional field to indicate domestic or international student status for each unique student identifier. The review of this data verified that 755 data sources in the sample had an international student status. This information was used to clean the data sources and exclude these international student data sources from the LSES sample. It was found that all but five data sources without an onshore postcode recorded correctly in the SMS data field were an international enrolment, and the data was cleaned to represent international student status. Data was transformed for students with an international status to record an international code for the socio-economic status data field, ensuring only domestic student data sources recorded a socio-economic status and were included in the analysis. The study did not consider the remaining five domestic records without a socio-economic status classification.

*(d) First Nations Students*

The data sources included a field indicating students who were First Nations. This information was self-reported by students at the time of course enrolment and was represented by enrolment data fields that indicated if students were Aboriginal and/or Torres Strait Islander or non-Indigenous. The researcher liaised with the University's Indigenous Academic Unit, Moondani Balluk, on the appropriate use of language and terminology to be used in this research for data related to First Nations peoples. The data sources identified a small sample of First Nations students (n=27), that equated to 17 unique students.

## Appendix E: Ethics Approval



Thu 15/10/2020 12:47 PM

quest.noreply@vu.edu.au

Quest Ethics Notification - Application Process Finalised - Application Approved

To Anthony.Watt@vu.edu.au

Cc Naomi Dempsey; Marisa.Devlin@vu.edu.au

Dear PROF ANTHONY WATT,

Your ethics application has been formally reviewed and finalised.

- » Application ID: HRE20-179
- » Chief Investigator: PROF ANTHONY WATT
- » Other Investigators:
- » Application Title: Impact of Victoria University's First Year Model and Block Mode teaching on student academic success, satisfaction and retention
- » Form Version: 13-07

The application has been accepted and deemed to meet the requirements of the National Health and Medical Research Council (NHMRC) 'National Statement on Ethical Conduct in Human Research (2007)' by the Victoria University Human Research Ethics Committee. Approval has been granted for two (2) years from the approval date; 15/10/2020.

Continued approval of this research project by the Victoria University Human Research Ethics Committee (VUHREC) is conditional upon the provision of a report within 12 months of the above approval date or upon the completion of the project (if earlier). A report proforma may be downloaded from the Office for Research website at: <http://research.vu.edu.au/hrec.php>.

Please note that the Human Research Ethics Committee must be informed of the following: any changes to the approved research protocol, project timelines, any serious events or adverse and/or unforeseen events that may affect continued ethical acceptability of the project. In these unlikely events, researchers must immediately cease all data collection until the Committee has approved the changes. Researchers are also reminded of the need to notify the approving HREC of changes to personnel in research projects via a request for a minor amendment. It should also be noted that it is the Chief Investigators' responsibility to ensure the research project is conducted in line with the recommendations outlined in the National Health and Medical Research Council (NHMRC) 'National Statement on Ethical Conduct in Human Research (2007).'

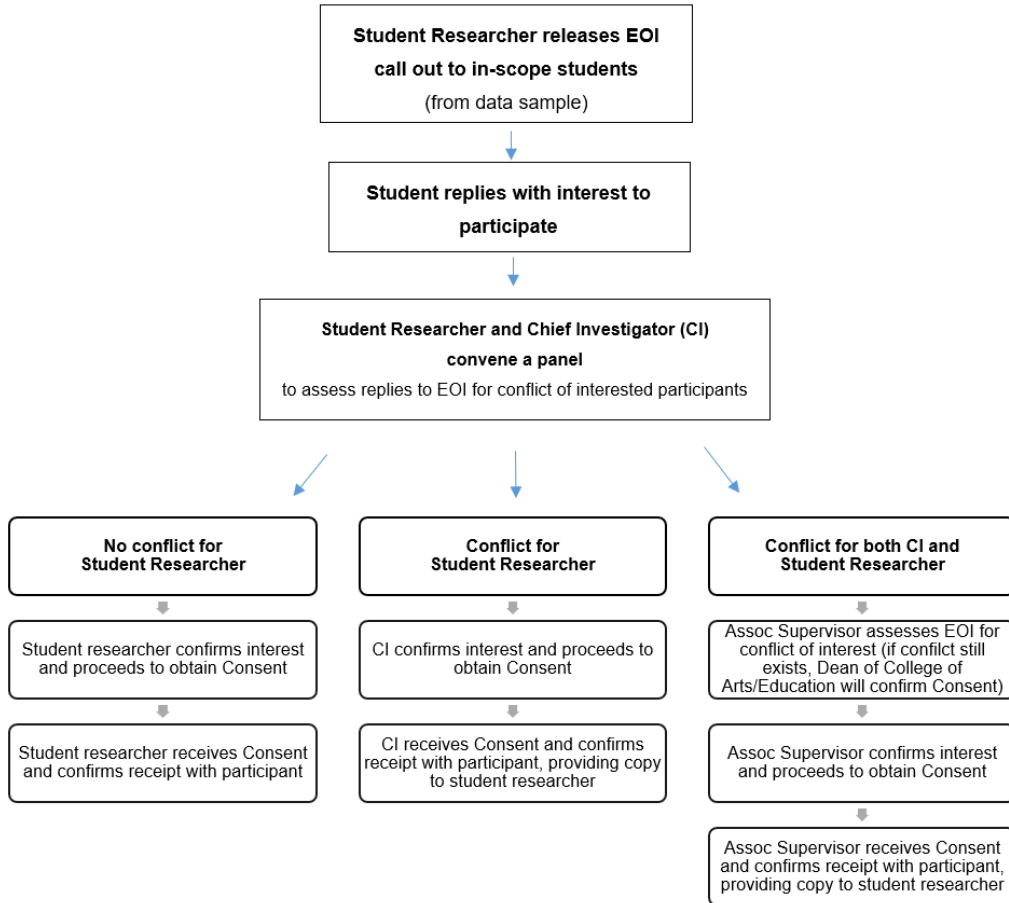
On behalf of the Committee, I wish you all the best for the conduct of the project.

Secretary, Human Research Ethics Committee  
Phone: 9919 4781 or 9919 4461  
Email: [researchethics@vu.edu.au](mailto:researchethics@vu.edu.au)

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This is an automated email from an unattended email address. Do not reply to this address.

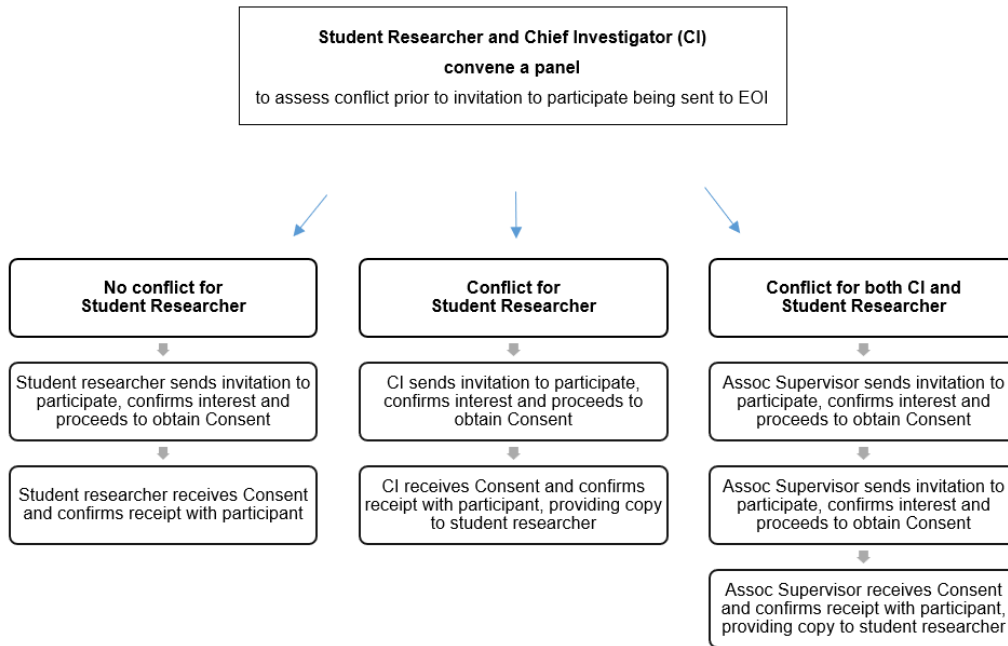
# Appendix F: Recruitment Protocol for Dependent or Unequal Relationship

## 1. Student Recruitment Protocol





## 2. Staff Recruitment Protocol



## Appendix G: Participant Information Statement (Staff Interview)



# INFORMATION TO PARTICIPANTS INVOLVED IN RESEARCH (Staff)

### You are invited to participate

---

You are invited to participate in a research project entitled *Impact of Victoria University's First Year Model and Block Mode teaching on student academic success, satisfaction and retention*.

This project is being conducted by a student researcher, Naomi Dempsey, as part of a Doctor of Philosophy (PhD) study at Victoria University (VU) under the supervision of Professor Anthony Watt from the College of Arts & Education and Adjunct Professor Marcia Devlin from the VU Business School.

### Project explanation

---

This doctoral study aims to develop a research framework to examine the dual approach of a revised First Year Model combined with Block Mode delivery and its impact on student academic success, satisfaction and retention. The study will expand the evidence base on the success factors of Block Mode learning and teaching and will add new knowledge globally on the application of this delivery mode for larger student populations. The study has a two-phased design using both quantitative and qualitative methods to examine the aims and explore the overall phenomena of the delivery mode across multiple academic disciplines and equity groups.

### What will I be asked to do?

---

You have been asked to participate because you were identified as a VU staff member who has had significant involvement in the conceptualisation, design and implementation of the curriculum, and/or the delivery of learning and teaching pre and post the introduction of the First Year College and Block Mode. The interviews will seek to explore your lived experiences to examine student academic success, satisfaction and retention as a result of the new delivery mode at VU and changed approach to learning and teaching.

Being part of this study is voluntary. If you want to take part in this study, we will ask you to participate in an interview to explore your perspectives of VU's Block Model, as well as student academic success, satisfaction and retention, through your lived experience at VU. The interview will be held for a maximum of one hour and will be conducted at a mutually convenient time via Zoom. If you agree, we would like to audio-record the interview.

### What will I gain from participating?

---

Staff will have the opportunity to provide insightful information that will help contribute new knowledge globally on the impacts of block mode teaching in higher education. Staff contributions to this research study will also support VU to develop a stronger comprehension of academic success, satisfaction and retention as a result of its current design and implementation of Block Mode through this research study.

### How will the information I give be used?

---

We will **collect** information about you in ways that could reveal who you are.

We will **store** information about you in ways that will not reveal who you are.

We will **publish** information about you in ways that will not be identified in any type of publication from this study.

We will **keep** your information for 5 years after the project is completed. After this time we will destroy all of your data.

The secure storage, transfer and destruction of your data will be undertaken in accordance with the [Australian Code for the Responsible Conduct of Research](#).

The personal information you provide will be handled in accordance with applicable privacy laws, any health information collected will be handled in accordance with the Health Records Act 2001 (Vic). Subject to any exceptions in relevant laws, you have the right to access and correct your personal information by contacting the student researcher.

### **What are the potential risks of participating in this project?**

---

Risks to participants in this study are minimised through the use of procedures consistent with ethical research design and with adequate safeguards so that participants are not unnecessarily exposed to risk. If, as an outcome of involvement in the project, participants experience any continuing concerns or anxiousness due the unlikely event that the questions may stimulate negative emotions, then participants may contact Dr Romana Morda. Dr Morda is a registered psychologist of Victoria University, who is available to discuss any issues that you would like to raise or share (tel. 9919 5223, [romana.morda@vu.edu.au](mailto:romana.morda@vu.edu.au)).

In the case where an adverse event may happen, participants will be asked if they wish to continue with the research and at all times have the opportunity to cease the interview if desired. Participants will also be offered the opportunity to contact the Chief Investigator, Professor Anthony Watt for clarification of any issues or further information.

### **How will this project be conducted?**

---

The interview questions will focus on the three research aims to explore the themes of academic success, student satisfaction and retention and will enable the student researcher to explore your lived experiences and perspectives.

The interviews will be semi-structured, using open-ended questions, so the student researcher may explore the research questions. Staff interviews will be conducted in person for a maximum of one hour and will be audio recorded. All interviews will be conducted via the Zoom platform for this reason. Participants will be invited to turn on their video function to facilitate engagement in the discussion and will be assured that there will not be a video recording of the interview, only an audio recording.

### **Who is conducting the study?**

---

Professor Anthony Watt  
Chief Investigator  
Victoria University  
Tel: 03 9919 4119  
Email: [Anthony.Watt@vu.edu.au](mailto:Anthony.Watt@vu.edu.au)

Naomi Dempsey  
Student Researcher  
Victoria University  
Tel: 03 9919 4449  
Email: [Naomi.Dempsey@live.vu.edu.au](mailto:Naomi.Dempsey@live.vu.edu.au)

Any queries about your participation in this project may be directed to the Chief Investigator listed above. If you have any queries or complaints about the way you have been treated, you may contact the Ethics Secretary, Victoria University Human Research Ethics Committee, Office for Research, Victoria University, PO Box 14428, Melbourne, VIC, 8001, email [researchethics@vu.edu.au](mailto:researchethics@vu.edu.au) or phone (03) 9919 4781 or 4461.

## Appendix H: Participant Information Statement (Student Interview)



# INFORMATION TO PARTICIPANTS INVOLVED IN RESEARCH (Students)

### You are invited to participate

You are invited to participate in a research project entitled *Impact of Victoria University's First Year Model and Block Mode teaching on student academic success, satisfaction and retention*.

This project is being conducted by a student researcher, Naomi Dempsey, as part of a Doctor of Philosophy (PhD) study at Victoria University (VU) under the supervision of Professor Anthony Watt from the College of Arts & Education and Adjunct Professor Marcia Devlin from the VU Business School.

### Project explanation

This doctoral study aims to develop a research framework to examine the dual approach of a revised First Year Model combined with Block Mode delivery and its impact on student academic success, satisfaction and retention. The study will expand the evidence base on the success factors of Block Mode learning and teaching and will add new knowledge globally on the application of this delivery mode for larger student populations. The study has a two-phased design using both quantitative and qualitative methods to examine the aims and explore the overall phenomena of the delivery mode across multiple academic disciplines and equity groups.

### What will I be asked to do?

You have been asked to participate because you were identified as a student who has either studied at VU before the First Year Model and Block Mode was introduced or have studied at VU in the new mode of delivery. Being part of this study is voluntary. If you want to take part in this study, we will ask you to participate in an interview to explore your perspectives of your academic success, student satisfaction and retention in study through your lived experience of studying at VU. The interview will be held for a maximum of one hour and will be conducted at a mutually convenient time via Zoom. If you agree, we would like to audio-record the interview. You may have a support person present if you wish.

### What will I gain from participating?

Students will have the opportunity to provide insightful information that will help contribute new knowledge globally on the impacts of Block Mode teaching in higher education. Students will also support VU to develop a stronger comprehension of academic success, student satisfaction and student retention as a result of its current design and implementation of Block Mode through this research study.

### How will the information I give be used?

We will **collect** information about you in ways that could reveal who you are.  
We will **store** information about you in ways that will not reveal who you are.  
We will **publish** information about you in ways that will not be identified in any type of publication from this study.  
We will **keep** your information for 5 years after the project is completed. After this time we will destroy all of your data.

The secure storage, transfer and destruction of your data will be undertaken in accordance with the [Australian Code for the Responsible Conduct of Research](#).

The personal information you provide will be handled in accordance with applicable privacy laws, any health information collected will be handled in accordance with the Health Records Act 2001 (Vic). Subject to any exceptions in relevant laws, you have the right to access and correct your personal information by contacting the student researcher.

### **What are the potential risks of participating in this project?**

---

Risks to participants in this study are minimised through the use of procedures consistent with ethical research design and with adequate safeguards so that participants are not unnecessarily exposed to risk. If, as an outcome of involvement in the project, participants experience any continuing concerns or anxiousness due the unlikely event that the questions may stimulate negative emotions, then participants may contact Dr Romana Morda. Dr Morda is a registered psychologist of Victoria University, who is available to discuss any issues that you would like to raise or share (9919 5223, [romana.morda@vu.edu.au](mailto:romana.morda@vu.edu.au)).

In the case where an adverse event may happen, participants will be asked if they wish to continue with the research and at all times have the opportunity to cease the interview if desired. Participants will also be offered the opportunity to contact the Chief Investigator, Professor Anthony Watt for clarification of any issues or further information.

### **How will this project be conducted?**

---

The interview questions will focus on the three research aims to explore the themes of academic success, student satisfaction and student retention and will enable the student researcher to explore your lived experiences and perspectives of study at VU.

The interviews will be semi-structured, using open-ended questions, so the student researcher may explore the research questions. Student interviews will be conducted in person for a maximum of one hour and will be audio recorded. All interviews will be conducted via the Zoom platform. Participants will be invited to turn on their video function to facilitate engagement in the discussion and will be assured that there will not be a video recording of the interview, only an audio recording.

### **Who is conducting the study?**

---

Professor Anthony Watt  
Chief Investigator  
Victoria University  
Tel: 03 9919 4119  
Email: [Anthony.Watt@vu.edu.au](mailto:Anthony.Watt@vu.edu.au)

Naomi Dempsey  
Student Researcher  
Victoria University  
Tel: 0404 232 550  
Email: [Naomi.Dempsey@vu.edu.au](mailto:Naomi.Dempsey@vu.edu.au)

Any queries about your participation in this project may be directed to the Chief Investigator listed above. If you have any queries or complaints about the way you have been treated, you may contact the Ethics Secretary, Victoria University Human Research Ethics Committee, Office for Research, Victoria University, PO Box 14428, Melbourne, VIC, 8001, email [researchethics@vu.edu.au](mailto:researchethics@vu.edu.au) or phone (03) 9919 4781 or 4461.

## Appendix I: Consent Form (Staff Interview)



# CONSENT FORM FOR PARTICIPANTS INVOLVED IN RESEARCH (Staff)

### INFORMATION TO PARTICIPANTS:

We would like to invite you to be a part of a study into the *Impact of Victoria University's First Year Model and Block Mode teaching on student academic success, satisfaction and retention*.

This project is being conducted by a student researcher, Naomi Dempsey, as part of a Doctor of Philosophy (PhD) study at Victoria University (VU) under the supervision of Professor Anthony Watt from the College of Arts & Education and Adjunct Professor Marcia Devlin from the VU Business School. All details of the project are included in the information to participant sheet we have provided to you.

### CERTIFICATION BY PARTICIPANT

I, \_\_\_\_\_ (participant's name)

of \_\_\_\_\_ (participant's suburb)

certify that I am at least 18 years old\* and that I am voluntarily giving my consent to participate in the study:

*Impact of Victoria University's First Year Model and Block Mode teaching on student academic success, satisfaction and retention*

being conducted at Victoria University by:

Professor Anthony Watt  
Chief Investigator  
Victoria University

I certify that the objectives of the study, together with any risks and safeguards associated with the procedures listed hereunder to be carried out in the research, have been fully explained to me by:

Naomi Dempsey  
Student Researcher  
Victoria University

and that I freely consent to participation involving the below mentioned procedures:

- Interview via Zoom
- Maximum one hour in duration
- Audio only from interview recorded
- The secure storage, transfer and destruction of my data will be undertaken in accordance with the [Australian Code for the Responsible Conduct of Research](#).

I certify that I have had the opportunity to have any questions answered and that I understand that I can withdraw from this study at any time and that this withdrawal will not jeopardise me in any way.

I have been informed that the information I provide will be kept confidential.

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

Any queries about your participation in this project may be directed to the researchers:

Professor Anthony Watt  
Chief Investigator  
Victoria University  
Tel: 03 9919 4119  
Email: [Anthony.Watt@vu.edu.au](mailto:Anthony.Watt@vu.edu.au)

Naomi Dempsey  
Student Researcher  
Victoria University  
Tel: 03 9919 4449  
Email: [Naomi.Dempsey@live.vu.edu.au](mailto:Naomi.Dempsey@live.vu.edu.au)

If you have any queries or complaints about the way you have been treated, you may contact the Ethics Secretary, Victoria University Human Research Ethics Committee, Office for Research, Victoria University, PO Box 14428, Melbourne, VIC, 8001, email [Researchethics@vu.edu.au](mailto:Researchethics@vu.edu.au) or phone (03) 9919 4781 or 4461.

## Appendix J: Consent Form (Student Interview)



# CONSENT FORM FOR PARTICIPANTS INVOLVED IN RESEARCH (Students)

### INFORMATION TO PARTICIPANTS:

We would like to invite you to be a part of a study into the *Impact of Victoria University's First Year Model and Block Mode teaching on student academic success, satisfaction and retention*.

This project is being conducted by a student researcher, Naomi Dempsey, as part of a Doctor of Philosophy (PhD) study at Victoria University (VU) under the supervision of Professor Anthony Watt from the College of Arts & Education and Adjunct Professor Marcia Devlin from the VU Business School. All details of the project are included in the information to participant sheet we have provided to you.

### CERTIFICATION BY PARTICIPANT

I, \_\_\_\_\_ (participant's name)

of \_\_\_\_\_ (participant's suburb)

certify that I am at least 18 years old\* and that I am voluntarily giving my consent to participate in the study:

*Impact of Victoria University's First Year Model and Block Mode teaching on student academic success, satisfaction and retention*

being conducted at Victoria University by:

Professor Anthony Watt  
Chief Investigator  
Victoria University

I certify that the objectives of the study, together with any risks and safeguards associated with the procedures listed hereunder to be carried out in the research, have been fully explained to me by:

Naomi Dempsey  
Student Researcher  
Victoria University

and that I freely consent to participation involving the below mentioned procedures:

- Interview via Zoom
- Maximum one hour in duration
- Audio only from interview recorded
- The secure storage, transfer and destruction of my data will be undertaken in accordance with the [Australian Code for the Responsible Conduct of Research](#).

I certify that I have had the opportunity to have any questions answered and that I understand that I can withdraw from this study at any time and that this withdrawal will not jeopardise me in any way.



I have been informed that the information I provide will be kept confidential.

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

Any queries about your participation in this project may be directed to the researchers:

Professor Anthony Watt  
Chief Investigator  
Victoria University  
Tel: 03 9919 4119  
Email: [Anthony.Watt@vu.edu.au](mailto:Anthony.Watt@vu.edu.au)

Naomi Dempsey  
Student Researcher  
Victoria University  
Tel: 0404 232 550  
Email: [Naomi.Dempsey@vu.edu.au](mailto:Naomi.Dempsey@vu.edu.au)

If you have any queries or complaints about the way you have been treated, you may contact the Ethics Secretary, Victoria University Human Research Ethics Committee, Office for Research, Victoria University, PO Box 14428, Melbourne, VIC, 8001, email [Researchethics@vu.edu.au](mailto:Researchethics@vu.edu.au) or phone (03) 9919 4781 or 4461.

## Appendix K: SEU and SES Data Filters Applied by the BIS Department

### BIS Data Access/Extract – Record of SEU Data Filters Applied (SEUR)

#### Extract/mapping Conditions (SEU)

**Data Source** [https://infov2.vu.edu.au/analytics/saw.dll?Go&Path=%2fshared%2fAIR%2fAd-Hocs%2f2021%2f308191%2f308191\\_SEU\\_01&Options=rmf](https://infov2.vu.edu.au/analytics/saw.dll?Go&Path=%2fshared%2fAIR%2fAd-Hocs%2f2021%2f308191%2f308191_SEU_01&Options=rmf)

**Data Filter/s Applied**

```

SQI - SET or SEU Survey is equal to / is in SEU
and
SQI - Quantitative or Qualitative Question is equal to / is in QUANTITATIVE
and
SLI - Label ID is equal to 1 , 2 , 3 , 4 , 5
and
UI - Unit Code is equal to HNB1103 , ABA1003 , EEC1101 , AEK1203 , BE01105 , AHE1101 , BC01102 , BLB1114 , RBM1174 , BLB1101 , NIT1103 , NIT1102
and
TI - Survey Year is equal to 2018 , 2019
and
TI - Survey Calendar Type is equal to SEM-1-B1 , SEM-1-B2 , SEM-1-B3 , SEM-1-B4
or
TI - Survey Year is equal to / is in 2017
and
TI - Survey Calendar Type is equal to / is in SEM-1
    
```

**Data Currency** 30/06/2021

**Notes**

See the SEU\_DATA worksheet for the SEU dataset. The "PI - Student Identifier" field can be used to join SES and SEU data at student-level. SEU response codes map to the following labels:

```

5 = Strongly Agree
4 = Agree
3 = Neutral
2 = Disagree
1 = Strongly Disagree
    
```

### BIS Data Access/Extract – SES Data Filters Applied (SESR)

#### Extract/mapping Conditions (SES)

**Data Source** [https://infov2.vu.edu.au/analytics/saw.dll?Go&Path=%2fshared%2fAIR%2fAd-Hocs%2f2021%2f308191%2f308191\\_SES\\_COMBINED\\_01&Options=rmf](https://infov2.vu.edu.au/analytics/saw.dll?Go&Path=%2fshared%2fAIR%2fAd-Hocs%2f2021%2f308191%2f308191_SES_COMBINED_01&Options=rmf)

**Data Filter/s Applied**

```

SRI - Stage of Studies is equal to / is in Commencing
AND
SRI - Course Level is equal to / is in Undergraduate
AND
TI - Survey Year is equal to / is in 2017; 2018; 2019
AND
SSI - QILT Data Analysis Code is equal to / is in 1.0; 2.0
AND
SII - Institution is equal to / is in Victoria University

CASE WHEN "Survey Question Information (SQI)"."SQI - Question Number" IN(47,45,49,43,46,44,50) THEN 'Skill
Development' WHEN "Survey Question Information (SQI)"."SQI - Question Number" IN(51,67,57,81,54,53,56) THEN 'Learner
Engagement' WHEN "Survey Question Information (SQI)"."SQI - Question Number" IN(62,65,73,76,75,79,77,78,74,69,68) THEN
'Teaching Quality' WHEN "Survey Question Information (SQI)"."SQI - Question Number"
IN(72,41,52,3,4,8,9,1,2,70,71,55,42) THEN 'Student Support' WHEN "Survey Question Information (SQI)"."SQI - Question
Number" IN(64,63,61,58,66,59,60) THEN 'Learning Resources' ELSE 'NA' END <> 'NA'

AND
"Survey Label Information (SLI)"."SLI - Label ID" NOT IN (96.0, 97.0, 99.0)
    
```

**Data Currency** 30/06/2021

**Notes**

See the SES\_DATA worksheet for the SES dataset. See the SES\_VALUE\_LABELS worksheet for mapping of SES question response codes to response labels. The "SRI - Student Identifier" field can be used to join SES and SEU data at student-level. See columns [BD:BI] in SES\_DATA for an example of this. See here (<https://www.qilt.edu.au/qilt-surveys/student-experience>) for more information of SES survey.

## Appendix L: Coding Scheme for Data Transformations, Analysis and Presentation of Study 1 Results

### Student Enrolment Group Coding Scheme

Academic Discipline			Course of Study				Unit of Study			
SMS Data Value (College)	SPSS Value (data transformation)	SPSS Variable: Discipline	SMS Data Value (Course)	SMS Data Value (Course Code)	SPSS Value (data transformation)	SPSS Variable: Course	SMS Data Value (Unit Title)	SMS Data Value (Unit Code)	SPSS Value (data transformation)	SPSS Variable: Unit
College of Arts and Education	1	Arts and Ed	Bachelor of Arts	ABAB	1	Arts	Introduction to Sociology	ABA1003	1	Sociology
College of Arts and Education	1	Arts and Ed	Bachelor of Education (P-12)	EBED	2	Education	Personal and Professional Learning	EEC1101	2	Professional Learning
VU Business School	2	Business	Bachelor of Business	BBNS	3	Business	Information Systems for Business	BCO1102	3	Information Systems
VU Business School	2	Business	Bachelor of Business	BBNS	3	Business	Economic Principles	BEO1105	4	Economic Principles
College of Sport and Exercise Science	3	Sport	Bachelor of Exercise Science (Clinical Practice)	ABHE	4	Ex-Science	Structural Kinesiology	AHE1101	5	Structural Kinesiology
College of Sport and Exercise Science	3	Sport	Bachelor of Exercise Science (Clinical Practice)	ABHE	4	Ex-Science	Human Physiology	RBM1174	6	Human Physiology
College of Engineering and Science	4	Engineering	Bachelor of Information Technology	NBIT	5	IT	Introduction to Programming	NIT1102	7	Programming

College of Engineering and Science	4	Engineering	Bachelor of Information Technology	NBIT	5	IT	Communication and Information Management	NIT1103	8	Communication Management
College of Law and Justice	5	Law	Bachelor of Laws	BLAW	6	Law	Australian Legal System in Context	BLB1101	9	Legal System
College of Law and Justice	5	Law	Bachelor of Laws	BLAW	6	Law	Legal Research Methods	BLB1114	10	Legal Research
College of Health and Biomedicine	6	Health	Bachelor of Nursing	HBNB	7	Nursing	Indigenous Health and Wellbeing	AEK1203	11	Indigenous Health
College of Health and Biomedicine	6	Health	Bachelor of Nursing	HBNB	7	Nursing	Professional Studies 1	HNB1103	12	Professional Studies

### Student Equity Group Coding Scheme

Equity Group	SMS Data Value	MS Excel Data Transformation (VLookup)^	SPSS Value (data transformation)	SPSS Variable
SWD	Y		1	Students with disability (SWD)
	N		2	All other students
NESB	= or >0002		1	Students from non-English speaking backgrounds (NESB)
	0001		2	All other students
	- (null data not used)			
LSES	Postcode	LOW	1	Domestic students identified as having Low socio-economic status (LSES)
		MED or HIGH	2	All other domestic students
		N/A or INTL	0	Null value or International student status (SES not applicable)
First Nations	Of Aboriginal Origin But Not Torres Strait Islander		1	First Nations students
	Neither Aboriginal Nor Torres Strait Islander Origin		2	All other students
	No Information (null data not used)		-	

^ the process is detailed in Chapter 3

### Student Domestic Status Coding Scheme

Domestic Status	SMS Data Value	SPSS Value (data transformation)	SPSS Variable
Domestic or International Status	Domestic	1	Domestic students
	International	2	International students

### Academic Success Coding Scheme

Unit of Study Academic Outcome	SMS Data Value	SPSS Value (data transformation)	SPSS Variable ^^
Pass or Fail grade	Pass	2	Pass
	Fail	1	Fail
Grade Result	Mark = or greater than 80, less than 100	5	HD – High Distinction
	Mark = or greater than 70, less than 79	4	D – Distinction
	Mark = or greater than 60, less than 69	3	C – Credit
	Mark = or greater than 50, less than 59	2	P – Pass
	Mark = or greater than 0, less than 49	1	N – Fail
	Mark = - (null data not used)	1	N – Fail^

^ analysis of the data sources showed 18 data sources containing null values ('-') that were excluded in the analysis of Marks, and included in the analysis of Grade Distribution

^^ aligned to the University's coding scheme for results and grades for higher education courses, consistently applied for every academic year that this study has included in the data analysis (VU, 2022d). The N data label used by the University was converted to F (fail) for consistency in reporting fail grade results throughout the thesis.

### Student Gender Coding Scheme

Gender	SMS Data Value	SPSS Value (data transformation)	SPSS Variable
Gender	F	2	Female
	M	1	Male
	X	0	Neither male or female

### Student Satisfaction Coding Scheme

Refer to Chapter Four

### Student Retention Coding Scheme

Refer to Chapter Four

## Appendix M: Summary of Quantitative Analysis Techniques

Data Analysis Techniques				Phase 1: USG (Academic Success)			Phase 2: SEUR and SESR (Student Satisfaction)		Phase 3: RI (Student Retention)
				Analysis 1: USG-P/F	Analysis 2: USG-M	Analysis 3: USG-GD	Analysis 4: SEUR	Analysis 5: SESR	Analysis 6: RI
				<i>nominal, categorical – no direction</i>	<i>Interval – scale</i>	<i>nominal, categorical</i>	<i>Ordinal – Likert scale, categorical mean score</i>	<i>Ordinal – Likert scale, categorical mean score</i>	<i>nominal, categorical – no direction</i>
<b>Cross Tabulation</b>	Frequencies	Descriptive, parametric	<i>n, %</i>	✓		✓			✓
<b>Chi-Square</b>	Independence Test (measures <i>difference</i> )	Inferential, non-parametric	$\chi^2, df, p$	✓	✓	✓			✓
<b>Cramer's V</b>	Effect Size of chi-square (measures <i>association</i> )	Inferential, non-parametric	<i>V</i>	✓	✓	✓			✓
<b>Univariate one-way ANOVA, General Linear Model (GLM)</b>	Estimated Marginal Means <i>F</i> -statistic and Partial Eta Squared Effect Size	Descriptive, parametric	<i>n, M, SD, df, F, p, η<sup>2</sup></i>		✓				
<b>One-way ANOVA</b>	Compare Means of Groups (measures <i>difference</i> )	Descriptive, parametric	<i>n, M, SD</i>				✓	✓	
<b>Kruskal-Wallis</b>	Significance (measures <i>association</i> )	Inferential, non-parametric	<i>n, H, df, p</i>				✓	✓	
<b>Kruskal-Wallis</b>	Pairwise Comparisons of Groups	Inferential, non-parametric	<i>p</i>				✓	✓	
<b>Kruskal-Wallis</b>	ANOVA Mean of Groups and Comparison Between Groups,	Inferential, non-parametric	<i>n, M, SD, df, F, p</i>					✓	

## Appendix N: EOI (Recruitment - Staff Interviews)

**From:** Naomi Dempsey

**To:** <participant>

**Subject: Research Study: Impact of Victoria University's First Year Model and Block Mode teaching**

Dear {X},

As a Victoria University staff member who has had significant involvement in the First Year Model and/or Block Mode, I would like to invite you to participate in a research project titled "Impact of Victoria University's First Year Model and Block Mode teaching on student academic success, satisfaction and retention".

This is an exciting research study I am leading as a student researcher at VU as part of my doctoral studies. The aim of the research is to examine the impact of Victoria University's First Year Model and Block Mode teaching on student outcomes. This includes the exploration of the lived experiences and perspectives of staff at VU who have had significant experience in the areas of conceptualisation, design and implementation of the curriculum, as well as the delivery of learning and teaching pre and post the introduction of the First Year College and Block Mode.

You are invited to participate in an interview on the topic. Participation is voluntary and will involve a 30-60 minute anonymous interview conducted on Zoom. Further details about the research project are included in the attached *Information to Staff Participants Involved in Research* document.

If you are interested in participating, please reply via email by {X} to confirm your interest. A *Consent Form for Staff Participants Involved in Research* will then be provided to you to confirm your consent prior to interview and a time for the interview will be scheduled at a convenient time to you.

I am available via reply email or on mobile number 0404 232 550 if you have any questions or would like to discuss the research study.

Kind regards,  
Naomi Dempsey



## Appendix O: Interview Guide (Staff)

### Staff Interview Guide (semi-structured)

Research Study: Impact of Victoria University's First Year Model and Block Mode teaching on student academic success, satisfaction and retention

Student Researcher: Naomi Dempsey, Victoria University

Version: Interview Guide and Questions (Final v2 - v06/11/2020)

---

#### Section 1: Brief Introduction of the project and the objectives of the interview

- Thank participant for their time and participation
- Interview will take 60 minutes (or less if you need)
- 13 questions - so a few minutes for each is a useful guide to responding
- Interview will only be audio recorded (the video is not being recorded). Is that ok?
- Confirm that all information will be confidential information presented without identification
- Confirm that participants will have an opportunity to review the interview transcript and provide any feedback prior to the transcript being used as data in the thesis
- Any questions before commencing?

Research Question and aims:

- Studying the impact of Victoria University's First Year Model and Block Mode teaching on student academic success, satisfaction and retention.
- Aim is to examine the dual approach of the First Year Model combined with Block Mode delivery and understand your lived experience and perspectives.

#### Section 2: Interview Questions

##### Warm-up question / background information

1. Could you please describe briefly your role at VU and how long you have been at VU?

## Student Success

2. What does the term 'academic success' mean to you?
3. What do you think contributes to students being satisfied?
4. In your view, what are the key factors that support student retention?

## First Year Model and Block Mode

*Note to interview participant:*

*The next set of questions will seek to explore both First Year Model and Block Mode of delivery.*

5. What influence do you think the First Year Model and Block Mode has had on academic outcomes for first year undergraduate students?
6. In your view, has the First Year Model and Block Mode influenced student satisfaction for first year undergraduate students? *(prompt if needed: If so, how so? If not, why not?)*
7. Do you think student retention has changed in any way because of the First Year Model and Block Mode of delivery for first year undergraduate students? *(prompt if needed: If so, how so? If not, why not?)*
8. What do you think could be done to further develop or enhance the First Year Model and VU's Block Mode to promote academic success, retention and satisfaction for students?
9. What do you think could be done by the University to further enhance the overall student experience, for students learning in Block Mode?

## Equity Groups

*Note to interview participant:*

*For the purposes of this study I am exploring students from specific equity groups. In this study, these students are defined as being from non-English speaking, low-socioeconomic or Indigenous backgrounds or as having a disability that may make study more challenging.*

10. Do you consider the First Year Model and/or Block Mode to have been beneficial for students who may be from those equity groups? *(prompt if needed: If so, how? If not, why?)*

## Overall Staff Experience

11. What were the best parts of your experience?
12. What were your challenges?
13. Do you have any further reflections or comments on your experience of this change in regards to VU's First Year Model and Block Mode?

***Thank participant for their time and advise that they will have the chance to review the final interview transcript before the data is used for the thesis.***

## Appendix P: EOI (Recruitment – Student Interviews)

From: Naomi Dempsey  
Bcc: <participants>  
Subject: **Share your university experience**

Dear students,

We invite students who have studied at Victoria University (VU) to express their interest in an interview as part of a research study looking at the impact of Victoria University's First Year Model and Block Mode teaching on student outcomes. By sharing your experiences and perspectives of your university experience, you will assist us in expanding the evidence and knowledge on success factors of Block Mode learning and teaching. In addition, your feedback will help to inform the future design of learning and teaching and the outcomes for students.

You are invited to participate in an interview on the topic. Participation is voluntary and will involve a one-hour anonymous interview conducted on Zoom. Further details about the research project are included in the attached Information to Participants Involved in Research (Students) document.

If you are interested in participating, please express your interest by replying to this email by {X}, and you will be informed of the next steps. Please note that interview places are limited. Furthermore, I am available via reply email or on mobile number 0404 232 550 if you have any questions or you would like to discuss the research study.

Kind regards,  
Naomi Dempsey  
(PhD candidate)

From: Naomi Dempsey  
Bcc: <participants>  
Subject: **Reminder: Share your university experience**

Dear students,

We've extended the opportunity to express your interest (EOI) to undertake an interview for this research study (see further details below). EOIs will remain open until {X}, and you can express your interest via reply email.

By sharing your experiences and perspectives of your university experience, you will help inform the future design of learning and teaching and the outcomes for students.

Thank you for taking the time to consider this invitation.

Kind regards,

Naomi Dempsey

From: Naomi Dempsey  
Bcc: <participants>  
**Subject: Expressions of Interest closing: share your university experience**

Good afternoon,

With only a few places remaining for student interviews, I would like to invite you to consider a final opportunity to share your university experience in this research study.

As a past or current student of Victoria University (VU), you are invited to express your interest in an interview as part of a research study looking at the impact of Victoria University's First Year Model and Block Mode teaching on student outcomes. By sharing your experiences and perspectives of your university experience, you will assist us in expanding the evidence and knowledge on success factors of Block Mode learning and teaching. In addition, your feedback will help to inform the future design of learning and teaching and the outcomes for students.

You are invited to participate in an interview on the topic. Participation is voluntary and will involve a one-hour anonymous interview conducted on Zoom. Further details about the research project are included in the attached Information to Participants Involved in Research (Students) document.

If you are interested in participating, please express your interest by replying to this email by {X}, and you will be informed of the next steps. I am also available via reply email or on mobile number 0404 232 550 if you have any questions or you would like to discuss the research study.

Thank you for considering this research study.

Best wishes,  
Naomi Dempsey  
(PhD candidate)

## Appendix Q: Interview Guide (Student)

### Student Interview Guide (semi-structured)

Research Study: Impact of Victoria University's First Year Model and Block Mode teaching on student academic success, satisfaction and retention

Student Researcher: Naomi Dempsey, Victoria University

Version: Interview Guide and Questions v22/07/2021

---

#### Section 1: Brief Introduction of the project and the objectives of the interview

- Thank participant for their time and participation
- Interview will take 60 minutes (or less if you need)
- Interview will be audio recorded (not video recorded). Is that ok?
- Confirm that all information will be confidential information presented without identification
- Confirm that participants will have an opportunity to review the interview transcript and provide any feedback prior to the transcript being used as data in the thesis
- Any questions before commencing?

Research Question and aims:

- Studying the impact of Victoria University's First Year Model and Block Mode teaching on student academic success, satisfaction and retention.
- Aim is to examine the dual approach of the First Year Model combined with Block Mode delivery and understand your lived experience and perspectives.

#### Section 2: Interview Questions

##### Warm-up question / background information

1. Could you please let me know the year you commenced your undergraduate study at VU and the qualification you enrolled in/are studying in?
2. Why did you choose to study at VU?

##### Student Success

3. What does the term 'academic success' mean to you?  
*(clarifying question if needed: 'What do you think it means to be successful at uni?')*
4. In your view, what is most beneficial in supporting you to remain in study?  
*(prompts if needed: are there particular people who have helped you? Programs? Services? Other things?)*
5. How would you describe being satisfied as a student?

**Choose Set A or Set B below depending on the identified Participant Group:**

- SET A:        *Participant Group 2 (initial block group)*  
                  *Participant Group 3 (subsequent block mode)*
- SET B:        *Participant Group 1 (traditional group)*

**SET A – Block Mode**

**First Year and Block Mode**

6. Can you please describe a little bit about your experiences of your first year of undergraduate study at VU, and also block mode? *(prompts if needed: Can you tell me more? Any other aspects of your experiences that you can tell me about?)*
7. Do you think your first-year experience prepared you well for the rest of your university study? If so, how so? If not, why not?
8. How satisfied were you with your first-year experience of undergraduate study and why?
9. In your view, which aspects of the Block Mode supported your success as a student?

**Equity Groups**

10. Do you consider the First Year Model and/or Block Mode to be beneficial for students who may be from equity groups? If so, how? If not, why?  
*Note for interview participant: For the purposes of this study, these students are defined as being from non-English speaking, low-socioeconomic or indigenous backgrounds or having a disability that may make their studies more challenging.*

**Student Support**

11. Are/were there any University support services you didn't receive that you think would be effective in supporting your success as a student?
12. What else do you think could be done by the University to support students with their learning?

**Overall Student Experience**

13. What were the best and worst parts of your experience?
14. Do you have any further comments on your first-year experience?

***Thank participant for their time and advise that they will have the chance to review the final interview transcript before the data is used for the thesis.***

## Set B – Traditional Mode

### First Year and Traditional Mode

6. Can you please describe a little bit about your experiences of your first year of undergraduate study at VU? *(prompts if needed: Can you tell me more? Any other aspects of your experiences that you can tell me about?)*
7. Do you think your first-year experience prepared you well for the rest of your university study? If so, how? If not, why?
8. How satisfied were you with your first-year experience of undergraduate study and why?
9. How would you describe your experiences of the teaching?
10. In your view, which aspects of your first-year experience supported you to achieve as a student?

### Equity Groups

11. Do you consider your first-year undergraduate experience, and your experience of the teaching, to be beneficial for students who may be from equity groups? If so, how? If not, why?  
*Note for interview participant: For the purposes of this study, these students are defined as being from non-English speaking, low-socioeconomic or indigenous backgrounds or having a disability that may make their studies more challenging.*

### Student Support

12. Were there any University support services you didn't receive that you think would be effective in supporting your success as a student?
13. What else do you think could be done by the University to support students with their learning?

### Overall Student Experience

14. What were the best and worst parts of your experience?
15. Do you have any further comments on your first-year experience?

***Thank participant for their time and advise that they will have the chance to review the final interview transcript before the data is used for the thesis.***

**Appendix R: Research Data Timeline in the Context of COVID-19**

The below timeline illustrates the timing of each commencing student group, and when the data was accessed or collected in the context of COVID-19.

Group:	COVID-19				
	2017	2018	2019	2020	2021
TMG	<b>First Year</b>	2nd Year (Retention Indicator)			
IBG		<b>First Year</b>	2nd Year (Retention Indicator)		
SBG			<b>First Year</b>	2nd Year (Retention Indicator)	
<b>Data Access/Collection Activities</b>				Study 2 – Data Collection (Staff Interviews)	Study 1 – Data Access (Institutional and Government Data)  Study 2 – Data Collection (Staff Interviews (continued))  Study 3 – Data Collection (Student Interview)