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Entrepreneurship education: Voices from Australia

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Entrepreneurship Education: Voices from Australia

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Abstract: As early as the 1980s, the avalanche of innovative performance witnessed in the global economy has seen the rise of the entrepreneur. Entrepreneurship is recognized as being a vital factor that promotes social change through innovation, leading to opportunities for job and wealth creation, thereby improving the economy. The study of entrepreneurship is, therefore, an important consideration for the long-term social and economic development of a nation. The contemporary competitive globalized work environment requires a range of entrepreneurial skills, not only to start new ventures but also for these ventures to thrive and be sustainable. Being an entrepreneur is an occupation based on specific properties of entrepreneurship. An exploratory study was conducted with university students in Australia to ascertain students' views on entrepreneurship and study programs. The responses were compared with an audit of course offerings from Australian universities' websites to determine whether current programs meet students' expectations in relation to the skills and abilities required to be a successful entrepreneur. The findings suggest that Australian entrepreneurship study programs should be reconceptualized to provide specific experiential learning that enables graduates to hit the ground running in start-ups.

Keywords: *Entrepreneurship, Higher Education, Skills, Internship*

Introduction

Entrepreneurship is recognized as the stimulation of acceleration in society as it promotes social change through innovation that potentially leads to new employment opportunities and wealth creation, thereby improving the economy. The study of entrepreneurship is, therefore, an important consideration for the long-term social and economic development of a nation. Students are finding entrepreneurship a desirable occupation that gives them autonomy. As more individuals enter the workforce, the contemporary competitive globalized environment requires a range of entrepreneurial-oriented skill sets. From the organizational viewpoint, the new economy, pressured to innovate to be competitive, is seeking graduates with entrepreneurial knowledge, skills, and competencies. These perceived opportunities, presented with the new innovative economic outlook, demand appropriate knowledge, skills, and capabilities that meet the desired outcomes. These changes are not only to start new ventures, but to thrive and be sustainable.

Seminal theories on entrepreneurship (Ferreira, Reis, and Miranda 2015; Glinyanova et al. 2020; Schumpeter 1942) have shown that organizations have changed their strategies, mostly in an incremental form in order to stabilize and routinize, to now embracing entrepreneurship as a way to sustain their business competitiveness and innovation.

Furthermore, mature organizations have far more considerations in their risk-taking knowledge base than ever before.

Reflecting on Bird's (1995) Theory of Entrepreneurial Competency, a growing number of studies have explored entrepreneurial activities and their orientation to small to medium enterprises (SMEs). The importance of small businesses in the context of entrepreneurship is emphasized by the fact that "small businesses account for over 95 percent of businesses worldwide and provide more than half of all jobs" (BIAC et al. 2016, 4). In most OECD nations, SMEs are the major generator of activities, as they "account for 60 to 70 percent of jobs...[and]...a disproportionately large share of new jobs" (OECD, 2000, 3) and even during the COVID-19 pandemic, SMEs employed around 20 percent of the total workforce and created 50 percent of new jobs (OECD 2021, 3). In Australia, "small businesses continue to dominate the Australian economy, with 99.8 percent of all Australian businesses considered a small to medium enterprises...with 88 percent of these firms employing four people or less" (OECD 2020). Nevertheless, a business' age, rather than its size, seems to be a more important factor, as young businesses generate more than their share of employment. "However, less than one-half of start-ups survive for more than five years and only a fraction develops into the high-growth firms which make important contributions to job creation" (OECD 2000, 3). Indeed, this is the case in Australia "with only half (54%) of new businesses surviving 4 years in operation" (OECD 2020)—the result of a tough competitive business environment, subject to externalities, both at the domestic and international levels.

Given the importance of SMEs to an economy and that most new enterprises appear to have a relatively short life span, we consider that entrepreneurship education should be designed in such a way as to develop students' skills, attitudes, and capabilities and that it should be action-oriented and applied as a continued learning process, in order to maximize the possibilities of success and sustainability. In this context, we explored two aspects of entrepreneurship education. The first aspect was an exploratory study of students' entrepreneurship needs. This was then compared with an audit of Australian universities' programs of study and their offerings to determine whether current programs meet students' expectations or whether changes should be considered to align the requirements of graduates more closely, to foster greater long-term entrepreneurial success. Indeed, the importance of universities to Australian society was highlighted in a Senate Select Committee on Job Security second interim report (2021): "Australian universities are significant contributors to public good through their ability to: innovate and distribute new knowledge; contribute to economic output and national income; attract global talent and foster international relationships; help address societal change through civic debate; and improve individual lives" (139). As Gibbons et al. (1994) pointed out, applied studies, such as entrepreneurship, will become critical applied learning that universities will need to research for diffusion and support transdisciplinary collaboration.

Consequently, university studies should be well-placed to develop the vital traits that contribute to the future development of successful entrepreneurs. In this article, we ask the question: to what degree do Australian university entrepreneurship programs meet the

expectations of students in terms of being able to develop the necessary skills and competencies to enter the business environment and establish themselves as successful entrepreneurs? Here we discuss entrepreneurship literature as an agenda for new career education and share the method we used to understand the perspectives and expectations of higher education students. This will lead our discussion to embrace reforms in our entrepreneurial education that will truly create employment capacity and solve complex issues by capable entrepreneurship graduates.

Literature Review

Entrepreneurship Education

Entrepreneurship research is among the top agendas for researchers and educators from business and economic disciplines, as entrepreneurship is recognized as the engine that drives economies and societies for most of the world nations (Thurik, Wennekers, and Uhlaner 2002). Schumpeter (1982) stated the theory of economic development and defined entrepreneurial profit as the expression of the value of what the entrepreneur contributes to production in the same sense that wages are the value expression of what the worker produces. According to Reynolds et al. (2005), entrepreneurship, or entrepreneurial activity, refers to discovering both available and potential opportunities and then initiating new economic jobs through the formation of new enterprises. The entrepreneurial process is a creative destruction that revives and renews the economy by introducing new goods and/or services that divert resources away from current firms, causing new firms to grow. For Schumpeter (1982), innovation and entrepreneurship were key process improvisers to economic development which strongly reinforced Drucker's (1970) position as he determined innovation as a specific tool of systematic entrepreneurship, where risk-taking types of decisions are taken at all levels of an organization to pursue the market with energy. These were critical entrepreneurial properties. Largely, entrepreneurship is considered to be a fundamental element of economic growth. It implies its ultimate significance in different approaches, such as classifying, evaluating, and utilizing novel opportunities for ventures; driving the economy forward in the form of innovations; creating new firms or renewing existing firms; developing the overall welfare of society; and creating jobs and new competencies (Cuervo, Riberio, and Roif 2007).

The interest in entrepreneurship research is increasing because of its perceived contribution to economic growth, as well as the perceived role of new ventures and innovations as drivers of economic growth. Baumol (1996) claimed that it is rightly believed that the processes of entrepreneurship have intensely profound influences on economic growth and employment at the communicative level, which presumably is the underlying reason for the rising interest in entrepreneurship research over recent years (Davidsson and Wiklund 2007). This, in turn, is fueling the demand for courses in entrepreneurship.

The notion of entrepreneurship has expanded rapidly in higher education institutions around the world. Specific subjects and teaching methods have been identified to have an important role in entrepreneurship education. Van Ewijk's (2018) study has shown that the challenge to successful entrepreneurship education is finding the most effective way to manage the teachable skills and identify the best match between student needs and teaching methods; however, there has been no common curriculum nor impact assessment framework in entrepreneurship. Furthermore, van Ewijk (2018) identified in a systematic review conducted that there were gaps in entrepreneurial education, especially when considering the increasing enrolment in this field while meeting students' expectations at the same time. The study highlights that there is a large gap between the needs of the business environment and university studies in this area, as the education system is unable to adapt quickly and flexibly to teaching methods and reflect the continuing changes in the real world of business.

Kuratko (2005) and Neck and Greene (2011) draw our attention to the fact that entrepreneurship education is booming worldwide and is especially seen as a field of education that offers progress on innovation and futuristic thinking. Entrepreneurship education includes all activities aiming to foster entrepreneurial mindsets, attitudes, and skills covering a range of aspects such as idea generation, start-up, growth, and innovation (Fayolle and Gailly 2004) that build creativity and resilient mindsets (Ratten and Jones 2021). Binks, Starky, and Mahon (2006) refer to entrepreneurship education as being a pedagogical process involved in the encouragement of entrepreneurial activities, behaviors, and mindsets. Other interpretations include a collection of formalized teachings that informs, trains, and educates anyone interested in business creation or small business development (Jones and English 2004). Therefore, the role of entrepreneurship education is mainly seen to build an entrepreneurial culture among young people that, in turn, would improve their career choices with regard to entrepreneurship for the new economy.

One may argue that the importance of entrepreneurship education has increased due to the need to prepare students to cope with the contemporary work and living environment (Küttim et al. 2014). Nevertheless, the objectives of entrepreneurship education are aimed at changing students' state of behaviors and intention, which makes them comprehend entrepreneurship, become entrepreneurial, and become an entrepreneur (Fayolle and Gailly 2004; Hannon 2005). The objectives could be classified into the following categories: raising awareness, teaching techniques and tools, and instructing on how to handle situations and offer continued support to create a process of social learning as their venture progresses and scales.

Coupled with the tasks of what needs to be covered in the curriculum, the further challenge posed is that the learning process of entrepreneurship should not just be confined to classroom activities but should include interactions with today's dynamic business environment, as this is vital (Dilts and Fowler 1999). This argument is clearly backed by Higgins and Elliot's (2011) study, where their findings showed that entrepreneurs gain knowledge through experience and in incremental processes throughout the span of their venture—that is, continuously learning. Hence, they posit that simulating “real life

experience” (357) in education is critical to deliver impact in their learning and discuss what it is to be a practitioner in this field. Jones and Iredale (2010) further suggested that, to arouse the interest of the students, entrepreneurship education demands experiential learning styles, creative problem-solving, developing social perspectives, and learning by doing. The issue we face in education is that the effectiveness of entrepreneurship education is largely related to the teacher’s skills and knowledge of using different teaching methods, specifically the methods of teaching entrepreneurship (Arasti, Kiani Falavarjani, and Imanipour 2011).

We endorse Garba’s (2010) conceptual model for entrepreneurship education as it highlights the importance and need for entrepreneurship education, which acts as a tool to alleviate socioeconomic problems, such as youth unemployment. We believe this model debunks the notion that higher education leads to employment rather than being self-employed. The model developed provides a way of understanding and thinking of the various influences that control an area of study and explains the interconnections between social value and government and institutional support. We believe this inclusive type of education requires action from the teaching side (reorientation between students and their teachers) and support from society. Further steps are also expected by the government to provide the necessary environment and create a policy framework for the successful application of this transformation process. Students benefit greatly by acquiring the necessary skills and training, identifying the opportunity to exploit, and eventually creating their venture. We praise the work of Garba (2010) as they challenge the developed countries that take on entrepreneurial education that lean toward being employed rather than creating an individual who will move away from stereotypical jobs and learn to think about self-employment by tapping into creativity and business ideas. To reaffirm that this is the way to develop entrepreneurship education, scholars such as Lazear (2004), Hsieh, Parker, and van Praag (2017), and Kakouris and Liargovas (2021) have voiced that an entrepreneur’s occupational skill sets are an acquisition of balanced skills that help individuals adapt to uncertainty and change by channeling risk aversion to function effectively and flexibly. Lazear’s (2004) argument is that those who end up being entrepreneurs are those who have taken on varied roles, building administrative, managerial, supervisory, and diagnostic skills—all generalist skills required to run a business. Furthermore, the point that Bird (2019) posits, based on empirical support, is that threshold competencies to envision and appropriately act together with the motivation to self-energize and engage with effort are critical entrepreneurial skills to have, and these notions deserve to be reflected in the current entrepreneurial education approach.

Methodology

This was an exploratory study conducted amongst students at an Australian university seeking their views on the development of entrepreneurial competences and how programs of study may assist in the development of such competences. Our research question is: to what degree do Australian university entrepreneurship programs meet the expectations of students in terms of being able to develop the necessary skills and competencies to enter the business

environment and establish themselves as successful entrepreneurs? The responses were compared with a desktop audit of course offerings from Australian universities to discover the degree to which the skills and abilities required to be a successful entrepreneur, as identified in student responses, are found in university entrepreneurship courses.

Following ethics approval, a survey link was publicized via the university's webpage and opened to all students, asking potential participants to complete the electronic survey on a voluntary basis. The survey was made available to both undergraduate and postgraduate students across all faculties. The survey questions were organized into eleven mini-parts that covered the following: (1) attractiveness of the profession; (2) personal attitude to this field; (3) social aspects; (4) cultural business environment; (5) business eligibility; (6) interest in entrepreneurship; (7) entrepreneurial competences; (8) business education evaluation; (9) entrepreneurship support; (10) higher education delivery; and (11) quality delivery. Qualtrics software was used to create and make electronic surveys available. This software was used because of its security features and data interrogation properties. Participants were assured of the anonymity and confidentiality of the data and advised that any public output would only be in aggregate form so that no individual respondent could be identified.

As the survey was distributed via an online link, it is not possible to determine a response rate, as the number of individuals who may have accessed the link but not completed the survey is unknown. A total of ninety-one responses were received; however, as a considerable proportion of these were substantially incomplete, only thirty fully completed responses were suitable for analysis. Data were analyzed using simple statistics, and the findings are presented in the next section.

The focus of this inquiry was on the development of entrepreneurship competence, and consequently, an audit of university courses on offer in Australia was undertaken. This was to determine the range of entrepreneurship courses on offer, their levels (that is, undergraduate or postgraduate), and where these may be offered geographically. This information provides a macro picture of the distribution of entrepreneurship education, highlighting any potential restricting factors in the pursuit of relevant courses of study. From the audit of courses, only universities that offered full programs on entrepreneurship education were considered further. Programs of study that offered only units of study, but not full programs, were excluded from the findings as these were deemed not to be focused enough to be able to realize the competences required for becoming an entrepreneur. As an example, a university program offering only one or two units of study is too short to be able to develop any level of competence in either depth or breadth. Details of course offerings analysis are provided later in the article.

Survey Results

We present the demographic data first to provide a general background of participants. This is followed by the analysis of responses to several statements across several categories, including the following: interest in becoming an entrepreneur; personal attitudes;

entrepreneurship competence; and educational preferences, requirements, and expectations. Participants were asked to rank their responses on a seven-point Likert scale, ranging from strongly disagree/no interest to strongly agree/very interested. Tables with percentages have been rounded to one decimal point.

Demographic Profile, Course of Study, and Progression Stage

Table 1 summarizes the age distribution. Our findings are based on responses received from twenty females and ten males and their age distribution, as shown in Table 1, where it may be observed that the majority were in the 21–23 age group, with a third being 27 years old or above.

Table 1: Age Distribution of Respondents (N = 30)

<i>Age</i>	<i>Number</i>	<i>%</i>
18–20	5	16.67
21–23	16	53.33
24–26	0	0.00
27–30	3	10.00
30+	6	20.00
Total	30	100.00

In terms of course progression, not unexpectedly, respondents were at various stages of completion. As summarized in Table 2, it can be observed that almost half of the respondents (14) were at the undergraduate completion stage or had just commenced their studies. This is an important consideration as students with greater study and life experiences are presumed to have more insightful views about competencies requirements for entrepreneurship.

Table 2: Respondents' Course Progression Stages (N = 30)

<i>Year of Study</i>	<i>Number</i>	<i>%</i>
1st year	6	20.00
2nd year	4	13.33
3rd year	6	20.00
4th year (Honors or Master)	5	16.67
5th year (Master)	9	30.00
Totals	30	100.00

The survey did not target any specific course of study because one of the aims of this exploratory study was to obtain views from a wide spectrum of disciplines. To better understand the trends and identify areas for research, teaching, and outreach activities, we decided that obtaining a complete picture of competencies from the various disciplines was critical. Indeed, respondents were associated with a variety of courses, as summarized in Figure 1, with the generic Bachelor of Business program being the most represented.

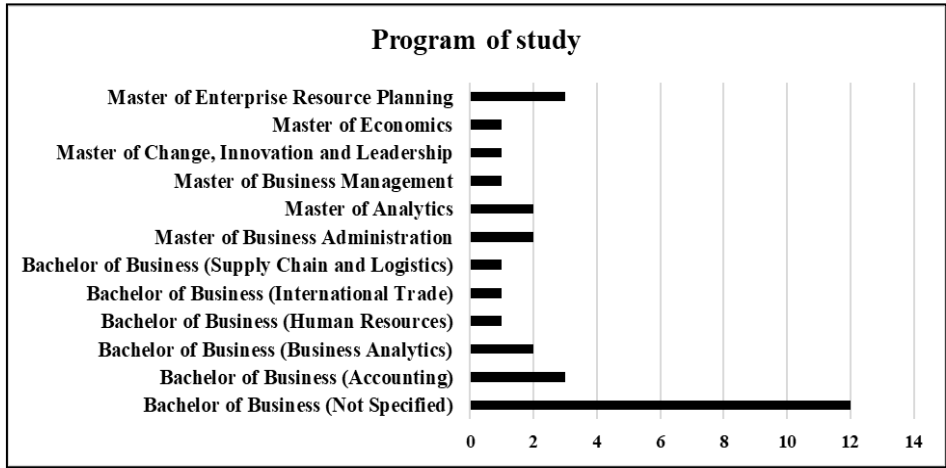


Figure 1: Respondents' Programs of Study (N = 30)

Interest in Becoming an Entrepreneur

Participants were asked whether they had considered becoming an entrepreneur or studying entrepreneurship, and the results are summarized in Figure 2, where it can be observed there was a high positive response rate to both questions, with twenty-six out of thirty respondents (86.7%) claiming they had considered becoming an entrepreneur, and twenty-three out of thirty respondents (76.7%) claiming they had considered studying entrepreneurship. As identified by Dodgson and Gan (2020):

Universities need to prepare graduates for careers they define for themselves. In the past, a university education typically prepared students for careers defined by others. More than ever in the unpredictable post-pandemic world, universities need to prepare students for careers they define themselves. Universities have to offer the curricula, facilities, and incentives to create new generations of entrepreneurs, as well as the traditional pathways into the professions, established companies and into government. This is part of the sea change that is needed to modernize universities and this transformation will play a crucial role as they help build the jobs and industries needed for economic recovery after the pandemic COVID-19. When once it was a marginal activity, entrepreneurship has become a centrally important part of the university experience.

According to Lesonsky (2021), it was estimated that the desire of students to start a business post-graduation is 61 percent. While the results from this cohort represent a higher proportion than those shown in Figure 2, they nevertheless indicate that most students wish to pursue these opportunities.

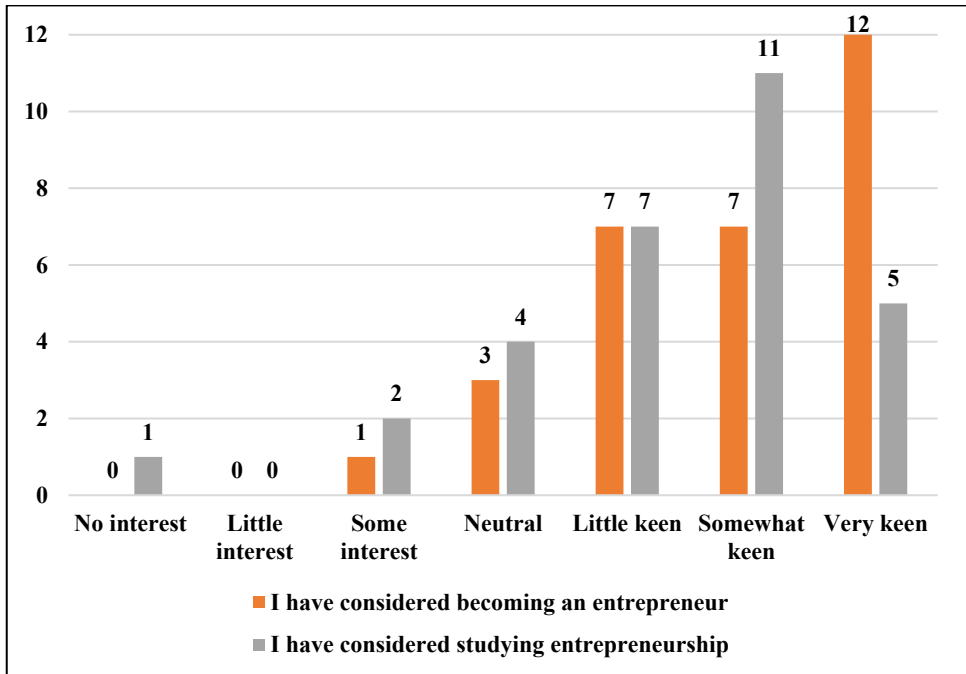


Figure 2: Interest in Becoming an Entrepreneur (n = 30)

Attractiveness of the Profession

Participants were asked to consider a range of factors, such as personal motivation, social contribution to society, and government stability. Within this background, they were asked to indicate their preference for the type of professional role they would choose, being either an employee, a freelancer or casually employed/seasonal worker, or an entrepreneur. The responses, summarized in Figure 3, indicated a comparatively less appetite for freelance or casual jobs, with only eleven out of thirty (36.7%) choosing this option. The most preferred option was that of being an entrepreneur (26 out of 30, or 86.67%), while being an employee rated second (23 out 30, or 76.67%).

These responses could link to an increasing gap between required business skills in the new economy and where entrepreneurial skill sets seem to be attractive to both students and organizations to deal with uncertainty and changes. Indeed, Ratten and Jones (2021) identified that employers are seeking practical skills where there is a growing demand for digital transformation in organizations and where entrepreneurial skills are being sought after. It is this shift that could be instigating the mindsets and what we see in the responses. Hence, we believe that entrepreneurial education ought to design a curriculum that helps bridge the theory-practice gap.

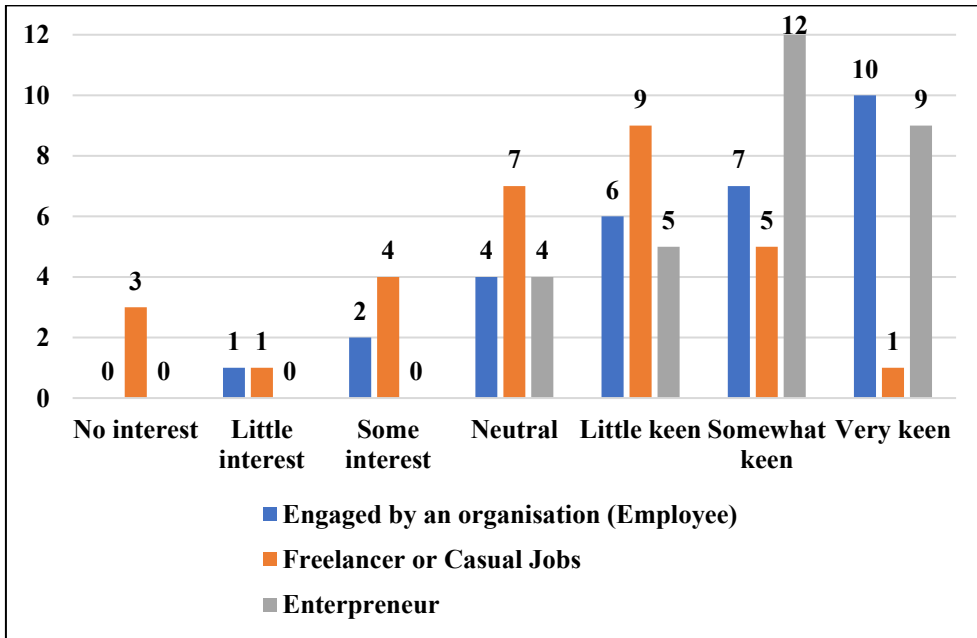


Figure 3: Preferred Job Role (n = 30)

Personal Attitude Toward Entrepreneurship

Participants were asked to provide their views against six statements describing personal attitudes toward entrepreneurship. The results are summarized in Table 3.

Table 3: Personal Attitude Toward Entrepreneurship (N = 30)

Personal Attitude	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
Doing business would be more advantageous for me.	0 (0%)	0 (0%)	0 (0%)	4 (13.3%)	6 (20%)	10 (33.3%)	10 (33.3%)
The career of an entrepreneur is attractive.	0 (0%)	1 (3.3%)	0 (0%)	1 (3.3%)	7 (23.3%)	11 (36.7%)	10 (33.3%)
If I had the opportunities and resources, I would like to start a business.	1 (3.3%)	1 (3.3%)	1 (3.3%)	1 (3.3%)	6 (20%)	6 (20%)	14 (46.7%)
Being an entrepreneur would mean fulfilling my dream.	0 (0%)	1 (3.3%)	1 (3.3%)	2 (6.7%)	6 (20%)	9 (30%)	11 (36.7%)
Among various career options, I would rather be an entrepreneur.	0 (0%)	1 (3.3%)	1 (3.3%)	2 (6.7%)	9 (30%)	9 (30%)	8 (26.7%)
I am confident I possess the qualifications to be an entrepreneur.	1 (3.3%)	0 (0%)	1 (3.3%)	4 (13.3%)	9 (30%)	10 (33.3%)	5 (16.7%)

The questions around personal attitude were designed to understand the underlying behavioral disposition in the early stages of the intention and perception behind building a start-up. This is based on the intention-based model of entrepreneurial behavior known as the theory of planned behavior (Fayolle and Gailly 2004). Based on the data shown in Table 3, there appears to be a very strong positive response to each of the statements provided, as the aggregate negative

response for each statement was less than 10 percent. The career of an entrepreneur scored the highest aggregate positive response with twenty-eight out of thirty (93.3%), while doing business, starting a business, and becoming an entrepreneur each scored a positive aggregate response of twenty-six out of thirty (86.7%). The reason for such a high positive response rate is not known for certain. One possible explanation may be respondent bias, as perhaps only those who were interested in entrepreneurship participated in this exploratory study; however, the data in Figure 1 makes this explanation improbable based on the various courses of study being pursued by respondents. The responses suggest that most of them exude self-confidence in being an entrepreneur. This confidence could be linked to entrepreneurial studies conducted by Fauchart and Gruber (2011) that behaviors and decisions were associated with social identity, and in this instance, the respondents were making their answer choices link to their personal desires in entrepreneurship, and Hartmann and Herb's (2015) study also offered us insights into how passion and motivation also fueled confidence.

Motivation to Start Own Business

Participants were provided with ten possible motivating factors for wanting to start their own business. A summary of the results is provided in Table 4.

Table 4: Motivating Factors for Wanting to Start a Business (N = 30)

<i>Motivating Factors</i>	<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Somewhat Disagree</i>	<i>Neutral</i>	<i>Somewhat Agree</i>	<i>Agree</i>	<i>Strongly Agree</i>
1. Bored by current job/school	4 (13.3%)	3 (10%)	2 (6.7%)	5 (16.7%)	10 (33.3%)	5 (16.7%)	1 (3.3%)
2. Dissatisfaction with previous job or employment (if you have work experience)	5 (16.7%)	1 (3.3%)	2 (6.7%)	8 (26.7%)	8 (26.7%)	5 (16.7%)	1 (3.3%)
3. Desire to earn more money	0 (0%)	0 (0%)	1 (3.3%)	5 (16.7%)	6 (20%)	7 (23.3%)	11 (36.7%)
4. Fear of being unemployed	5 (16.7%)	1 (3.3%)	1 (3.3%)	5 (16.7%)	4 (13.3%)	8 (26.7%)	6 (20%)
5. Influence of government policy and system	1 (3.3%)	2 (6.7%)	2 (6.7%)	11 (36.7%)	4 (13.3%)	7 (23.3%)	3 (10%)
6. Influence and support of family members, friends, and relatives	1 (3.3%)	1 (3.3%)	1 (3.3%)	7 (23.3%)	6 (20%)	9 (30%)	5 (16.7%)
7. Possibility of career progress	0 (0%)	1 (3.3%)	2 (6.7%)	5 (16.7%)	9 (30%)	6 (20%)	7 (23.3%)
8. Enjoy disrupting to enable success in what I do	0 (0%)	0 (0%)	2 (6.7%)	6 (20%)	7 (23.3%)	9 (30%)	6 (20%)
9. Often reflect and make changes to progress myself	0 (0%)	1 (3.3%)	0 (0%)	4 (13.3%)	9 (30%)	8 (26.7%)	8 (26.7%)
10. I do not hesitate to push myself out of my comfort zone	2 (6.7%)	0 (0%)	0 (0%)	6 (20%)	7 (23.3%)	6 (20%)	9 (30%)

The strongest motivating factor identified by respondents was the desire for improvement, achieved through a process of self-reflection and subsequent change (statement 9), with an aggregate score of 83.3 percent. This was closely followed by a desire

to earn more money (statement 3), with an aggregate score of 80 percent. The possibility of career progress (statement 7) was ranked as the third highest motivator (73.3%). These motivating factors are interdependent, as improvement of the status quo leads to a comparatively enhanced status, and this new status is often measured in financial terms, that is, an increase in income, typically achieved through career progression.

Ranked equally third, statements 8 and 10 indicate that respondents were willing to be disrupters and push themselves out of their comfort zones to achieve their goals. This finding reconfirms Bird’s (1995, 2019) competency threshold behaviors. The influence and support of social networks, comprising of family, relatives, and friends (statement 6), was ranked as the fourth highest motivator (66.7%). It is not difficult to imagine the influence that an individual’s social network may have on shaping that person’s attitude and beliefs. It is also not difficult to imagine that the individual may need to rely on support from their network in a variety of ways, including “hard” support, perhaps through the loan of physical materials and finance, or “soft” support, in terms of encouragement, brainstorming, and/or discussion of strategies to be pursued in order to achieve desired outcomes. This is further discussed later in the article.

Fear of unemployment (statement 4) was regarded as a concern by 60 percent of respondents, while boredom with their current job or education (statement 1) was ranked as a motivating factor by 53.3 percent of respondents, making these reasonably important considerations, but not as significant as the others outlined above. Some external business environmental factors were not regarded as particularly important by most respondents. The influence of government policy and system (statement 5), as well as dissatisfaction with previous job/employment experience (statement 3), were each ranked lowest by respondents with an aggregate score of only 46.7 percent. These responses correlate with Bruton, Sutter, and Lenz’s (2021) argument that in recent times, especially in developed countries, the younger generations prefer to have their own business instead of getting a job, which in many ways does contribute to the economic development of a nation.

Social Network Support

Participants were asked to indicate the level of support they may receive from their social networks. A summary of the results is provided in Table 5.

Table 5: Social Network Support (N = 30)

<i>Social Network</i>	<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Somewhat Disagree</i>	<i>Neutral</i>	<i>Somewhat Agree</i>	<i>Agree</i>	<i>Strongly Agree</i>
1. Close family	1 (3.3%)	1 (3.3%)	1 (3.3%)	1 (3.3%)	5 (16.7%)	6 (20%)	15 (50%)
2. Friends	0 (0%)	0 (0%)	0 (0%)	5 (16.7%)	8 (26.7%)	6 (20%)	11 (36.7%)
3. Team/schoolmates	1 (3.3%)	1 (3.3%)	1 (3.3%)	6 (20%)	5 (16.7%)	9 (30%)	7 (23.3%)

In aggregate terms, the number of agree responses is close, with a marginal preference for reliance on support from close family (86.7%) over friends (83.3%), with team/schoolmates being the least preferred (70%). These results support the findings in Table 4, where there was a relatively high positive response rate to the level of support sought from family and friends. This is not an unexpected result as social networks strongly influence an individual's attitudes and beliefs.

Entrepreneurship Confidence

Participants were provided with eight statements aimed at discovering the level of confidence they believed they had in starting a business. A summary of the responses is provided in Table 6.

Table 6: Entrepreneurship Confidence (N = 30)

<i>Entrepreneurial Confidence</i>	<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Somewhat Disagree</i>	<i>Neutral</i>	<i>Somewhat Agree</i>	<i>Agree</i>	<i>Strongly Agree</i>
1. It would be easy for me to start a business and sustain it.	1 (3.3%)	1 (3.3%)	5 (16.7%)	6 (20%)	9 (30%)	7 (23.3%)	1 (3.3%)
2. I am ready to start a viable enterprise.	0 (0%)	4 (13.3%)	5 (16.7%)	5 (16.7%)	9 (30%)	5 (16.7%)	2 (6.7%)
3. I could handle the process of starting a new business.	0 (0%)	0 (0%)	4 (13.3%)	6 (20%)	10 (33.3%)	6 (20%)	4 (13.3%)
4. I know the necessary information to start an enterprise.	0 (0%)	2 (6.7%)	5 (16.7%)	5 (16.7%)	8 (26.7%)	7 (23.3%)	3 (10%)
5. I know how to create and design a business project.	1 (3.3%)	1 (3.3%)	6 (20%)	5 (16.7%)	8 (26.7%)	6 (20%)	3 (10%)
6. If I tried to start a business, I would have a great chance of success.	0 (0%)	0 (0%)	1 (3.3%)	11 (36.7%)	8 (26.7%)	7 (23.3%)	3 (10%)
7. My background knowledge and experience will enable me to embark on a start-up.	1 (3.3%)	2 (6.7%)	0 (0%)	8 (26.7%)	11 (36.7%)	6 (20%)	2 (6.7%)
8. I know how to test new business ideas.	1 (3.3%)	1 (3.3%)	2 (6.7%)	7 (23.3%)	9 (30%)	7 (23.3%)	3 (10%)

There was a generally low negative response to each of the statements in Table 6, indicating an overall high level of confidence in successfully starting and sustaining a new business venture. Participants were asked questions that touched on passion, business knowledge, self-perception, and creativity. Respondents, mainly youth, displayed a high level of confidence. It is interesting to note that Papulová and Papula's (2015) study was the closest to helping us understand this seemingly high response and that could have been linked to the motives and a premature understanding of how entrepreneurial activities are viewed.

Entrepreneurship Competence

Participants were asked to provide their opinion in relation to the importance of six entrepreneurship skills and abilities. The results are summarized in Table 7, where it may be observed there is a very high positive response (80% to 90%) to each of the statements

provided. The ability to identify and evaluate marketing opportunities (statement 1) and the ability to exercise creativity—to come up with new ideas, improvements, and change (statement 6)—scored the highest (90% each). Numerous studies have discussed that passion is the core of entrepreneurship and that it fuels creativity, where the entrepreneurs channel their creativity into marketing, discovering new opportunities, and adopting and adapting to new information (Ruvio, Rosenblatt, and Hertz-Lazarowitz 2010). These competences are the hallmark of entrepreneurship and were recognized as such by respondents. These high response rates can be attributed to the individual’s reflection on their motivation. Dollinger, Burke, and Gump (2007) found a direct relationship between motivational orientation and the likelihood of creativity found in the task.

Table 7: Entrepreneurial Competence (N = 30)

<i>Entrepreneurial Confidence</i>	<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Somewhat Disagree</i>	<i>Neutral</i>	<i>Somewhat Agree</i>	<i>Agree</i>	<i>Strongly Agree</i>
1. Ability to identify and evaluate market opportunities	0 (0%)	0 (0%)	1 (3.3%)	2 (6.7%)	8 (26.7%)	11 (36.7%)	8 (26.7%)
2. Ability to communicate, develop relationships with other entrepreneurs, and network to support mutual learning	0 (0%)	0 (0%)	0 (0%)	5 (16.7%)	8 (26.7%)	9 (30%)	8 (26.7%)
3. Ability to co-operate with different stakeholders on business-related issues	0 (0%)	0 (0%)	0 (0%)	5 (16.7%)	6 (20%)	13 (43.3%)	6 (20%)
4. Ability to make sacrifices to ensure the business gets up and running	0 (0%)	0 (0%)	1 (3.3%)	5 (16.7%)	7 (23.3%)	12 (40%)	5 (16.7%)
5. Ability to exercise creativity—to come up with new ideas, improvements, and changes	0 (0%)	1 (3.3%)	1 (3.3%)	3 (10%)	3 (10%)	14 (46.7%)	8 (26.7%)
6. Ability to deal with problems and crises	0 (0%)	0 (0%)	0 (0%)	3 (10%)	8 (26.7%)	11 (36.7%)	8 (26.7%)

Sources of External Support for Entrepreneurship

In aiming to discover the awareness about entrepreneurship support from the government and investors, participants were asked to provide responses to six statements. The results are summarized in Table 8.

There was a generally positive response to all statements in Table 8. Government assistance (statement 1) scored the highest aggregate positive response (73.3%) and was closely followed by statements 3, 4, and 6 (66.6%), with the rest scoring 63.3 percent. This data appears to correlate well with the finding discussed earlier (Figures 2 and 3 and Table 6), that is, an interest and desire in becoming an entrepreneur as well as having the necessary confidence to do so. Consequently, it stands to reason that for a new venture to be successful, knowledge about sources of assistance should be one of the primary requirements, as it is typical for new start-ups to rely on external forms of financial and nonfinancial assistance. It was, therefore, reassuring to note a high level of awareness in this area from the responses received. Entrepreneurial activities often call upon the assemblage of an individual’s skills and knowledge that extends personal competencies.

Table 8: Awareness of Government and Investor Support for Entrepreneurship (N = 30)

<i>Entrepreneurial Confidence</i>	<i>Completely Unimportant</i>	<i>Unimportant</i>	<i>Somewhat Unimportant</i>	<i>Neutral</i>	<i>Somewhat Important</i>	<i>Important</i>	<i>Very Important</i>
1. The government provides good support to people who want to start a business.	1 (3.3%)	1 (3.3%)	3 (10%)	3 (10%)	7 (23.3%)	13 (43.3%)	2 (6.7%)
2. I know different types of support offered to people who want to start their own business.	1 (3.3%)	3 (10%)	3 (10%)	4 (13.3%)	9 (30%)	9 (30%)	1 (3.3%)
3. It would be easy for me to get access to business support from government resources.	2 (6.7%)	2 (6.7%)	2 (6.7%)	4 (13.3%)	8 (26.7%)	9 (30%)	3 (10%)
4. Good information is readily available from government-supported portals to help start a business.	1 (3.3%)	1 (3.3%)	1 (3.3%)	7 (23.3%)	8 (26.7%)	11 (36.7%)	1 (3.3%)
5. It is easy to get financial support from investors (subsidies, grants).	2 (6.7%)	3 (10%)	4 (13.3%)	2 (6.7%)	9 (30%)	8 (26.7%)	2 (6.7%)
6. It is easy to get financial support from banks (loans, mortgage).	2 (6.7%)	4 (13.3%)	4 (13.3%)	0 (0%)	9 (30%)	10 (33.3%)	1 (3.3%)

Business Education

Participants were asked to respond to a series of statements related to their willingness to learn by ranking their preferred method of acquiring knowledge, as well as course content preference. Responses are summarized in Tables 9 and 10.

Table 9: Type of Courses Preferred for Learning (N = 30)

<i>Preferred Courses</i>	<i>Completely Disinterested</i>	<i>Disinterested</i>	<i>Somewhat Disinterested</i>	<i>Neutral</i>	<i>Somewhat Keen</i>	<i>Keen</i>	<i>Very Keen</i>
1. Attend information sessions that support entrepreneurship endeavors	0 (0%)	0 (0%)	0 (0%)	2 (6.7%)	9 (30%)	10 (33.3%)	9 (30%)
2. Attend only free entrepreneurship courses	1 (3.3%)	0 (0%)	3 (10%)	5 (16.7%)	7 (23.3%)	8 (26.7%)	6 (20%)
3. Willing to pay for entrepreneurship courses	3 (10%)	2 (6.7%)	1 (3.3%)	2 (6.7%)	6 (20%)	12 (40%)	4 (13.3%)
4. Attend only university-accredited courses	0 (0%)	2 (6.7%)	2 (6.7%)	2 (6.7%)	7 (23.3%)	13 (43.3%)	4 (13.3%)
5. Attend only professional or industry-based programs	1 (3.3%)	1 (3.3%)	2 (6.7%)	4 (13.3%)	8 (26.7%)	8 (26.7%)	6 (20%)

It can be observed from Table 9 that the responses were generally quite close. Attending information sessions that support entrepreneurship endeavors (statement 1), with an aggregate of twenty-eight positive out of thirty responses (93.4), was the most popular option for this cohort. Attending university courses was the option ranked second (statement 4), with 80 percent positive responses. This was closely followed (in equal third position) by the options to

pay for entrepreneurship courses (statement 3) and attend only professional or industry-based programs (statement 5), each scoring 73 percent. Attending only free entrepreneurship courses (statement 2) was the lowest ranked, at 70 percent. These responses suggest that this cohort sees value in obtaining information and is willing to pay to acquire it. While information sessions can prove to be useful, it is generally accepted that a more profound level of knowledge is usually associated with engagement that occurs over a longer period, such as university or professional courses, simply because “deep learning often proceeds slowly” (Gela 2004, 8).

A range of statements was provided to participants to learn what the most important topics were in business courses. As can be observed from Table 10, in aggregate terms, there was a generally strong desire for all the items listed. The most important item was business planning and structure (item 5), with a 93.3 percent level of interest, which was closely followed by managerial competences (item 6) and the ability to recognize business opportunities (item 7), with an interest level of 90 percent each. External and internal environmental factors (items 1 and 2) were ranked third, with an interest of 86.7 percent each. Advantages and risks (item 4), although scoring high, were lower than expected, at 83.3 percent, as were specialist areas (item 3) that scored last, at 80 percent. There is a weakness in this area of study in understanding what motivates a student in the choice of their courses or units. Often students enrolled in a program of study have limited options to flexibly choose any unit, as this is often prescribed by the university. Hence, any study to support these responses is difficult, and we can perhaps presume that the respondents must have had a fair knowledge of business, were in an advanced year of their university studies, or may have some part-time working experience.

Table 10: Desired Content in Business Courses (N = 30)

<i>Preferred Courses</i>	<i>Completely Disinterested</i>	<i>Disinterested</i>	<i>Somewhat Disinterested</i>	<i>Neutral</i>	<i>Somewhat Keen</i>	<i>Keen</i>	<i>Very Keen</i>
1. Knowledge focused on the external environment (economic, social, environmental)	0 (0%)	1 (3.3%)	1 (3.3%)	2 (6.7%)	8 (26.7%)	7 (23.3%)	11 (36.7%)
2. Knowledge focused on internal environment (human resources, finance, marketing)	0 (0%)	1 (3.3%)	1 (3.3%)	2 (6.7%)	5 (16.7%)	12 (40%)	9 (30%)
3. Specialized areas of business (trade law, capital burden, IT technology)	1 (3.3%)	1 (3.3%)	1 (3.3%)	3 (10%)	7 (23.3%)	10 (33.3%)	7 (23.3%)
4. Advantages and risks of business and being an entrepreneur	1 (3.3%)	0 (0%)	0 (0%)	4 (13.3%)	8 (26.7%)	6 (20%)	11 (36.7%)
5. Business planning and its structure	0 (0%)	0 (0%)	0 (0%)	2 (6.7%)	11 (36.7%)	9 (30%)	8 (26.7%)
6. Necessary managerial competences (soft managerial skills for success in business)	0 (0%)	0 (0%)	1 (3.3%)	2 (6.7%)	9 (30%)	8 (26.7%)	10 (33.3%)
7. Develop the ability to recognize business opportunities	0 (0%)	0 (0%)	0 (0%)	3 (10%)	8 (26.7%)	7 (23.3%)	12 (40%)

University Entrepreneurship Support

Participants were provided with eleven statements related to the university environment in the context of entrepreneurship education and the environment in which such education is taught and practiced. The results are summarized in Table 11.

Table 11: University Entrepreneurship Environment (N = 30)

<i>Entrepreneurship Education Factors</i>	<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Somewhat Disagree</i>	<i>Neutral</i>	<i>Somewhat Agree</i>	<i>Agree</i>	<i>Strongly Agree</i>
1. I agree that my study program focuses on business development.	0 (0%)	1 (3.3%)	1 (3.3%)	3 (10%)	10 (33.3%)	8 (26.7%)	7 (23.3%)
2. There is a subject in my curriculum dealing with entrepreneurship and entrepreneurship development.	2 (6.7%)	2 (6.7%)	1 (3.3%)	3 (10%)	6 (20%)	11 (36.7%)	5 (16.7%)
3. At the university, everyone talks about start-ups.	2 (6.7%)	1 (3.3%)	2 (6.7%)	4 (13.3%)	8 (26.7%)	8 (26.7%)	5 (16.7%)
4. Our faculty has a business focus.	0 (0%)	1 (3.3%)	1 (3.3%)	2 (6.7%)	9 (30%)	13 (43.3%)	4 (13.3%)
5. Entrepreneurship courses should be mandatory.	2 (6.7%)	1 (3.3%)	2 (6.7%)	3 (10%)	6 (20%)	4 (13.3%)	12 (40%)
6. The university management supports entrepreneurship education.	0 (0%)	0 (0%)	2 (6.7%)	4 (13.3%)	7 (23.3%)	10 (33.3%)	7 (23.3%)
7. The university does not have adequate facilities to support entrepreneurial activities for students.	0 (0%)	1 (3.3%)	2 (6.7%)	8 (26.7%)	11 (36.7%)	4 (13.3%)	4 (13.3%)
8. The university environment inspires me to develop innovative ideas for a new business.	1 (3.3%)	1 (3.3%)	2 (6.7%)	6 (20%)	5 (16.7%)	5 (16.7%)	10 (33.3%)
9. I think the university is the best place for students to be trained in business.	0 (0%)	2 (6.7%)	0 (0%)	5 (16.7%)	10 (33.3%)	7 (23.3%)	6 (20%)
10. The university provides resources to help students in business.	0 (0%)	1 (3.3%)	3 (10%)	4 (13.3%)	7 (23.3%)	9 (30%)	6 (20%)
11. At my university, I meet a lot of people with good ideas for creating new businesses.	1 (3.3%)	4 (13.3%)	2 (6.7%)	2 (6.7%)	8 (26.7%)	5 (16.7%)	8 (26.7%)

While respondents agreed, in the aggregate, that their faculty was focused on business (factor 4, 86.7%), their study program focused on business development (factor 1, 83.3%), that university management supported entrepreneurship education (factor 6, 80%), and that the university was the best place to be trained in business, a concerning 63.3 percent agreed that the university did not have adequate facilities to support entrepreneurial activities for students (factor 7); yet, these activities should be regarded as an integral part of a program of study as “education is a prerequisite for raising productivity in all economic sectors” (Gámez-Gutiérrez and Garzón 2017, 240) and because “entrepreneurship education fosters entrepreneurship, which in turn results in positive outcomes on individuals, firms and society” (Alberti, Scascia, and Poli 2004, 3), as shown in Figure 4.

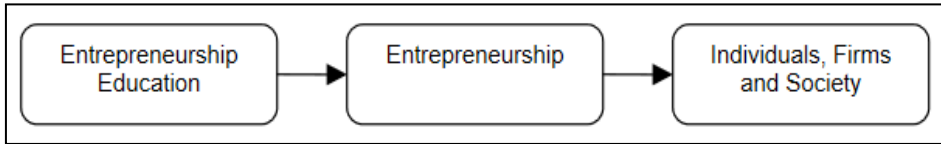


Figure 4: The Relevance of Entrepreneurship Education

Source: Alberti, Scascia, and Poli 2004, 3

Chimucheka (2014) claims that “acquisition of entrepreneurial skills, concepts and knowledge will encourage more to engage in entrepreneurial activities...Innovation and creativity gained through entrepreneurship education improves competitiveness and success chances of already established firms. Entrepreneurship education also benefits society at large through employment creation” (412). It would seem to be ideal for students to be able to participate in entrepreneurial activities in an educational setting as a steppingstone toward future entry into the business world, especially as entrepreneurship education is meant to “help individuals cope with and adapt to the complex changes taking place in the...wider global economy and society” (Jones and Iredale 2014, 36).

To this end, participants were asked to rank from a range of given learning methods/techniques that would be useful for developing business qualities. The responses are summarized in Table 12. Tasks and essays were, not surprisingly, ranked as the least useful learning methods/techniques (item 1), with an aggregate score of 66.7 percent. Case studies (item 4) and personality tests (item 5) did not fare much better at 70 percent each. Instead, respondents preferred lectures by experts in the field (item 8, 90%), business games (item 3, 86.6%), special projects (item 2, 83.3%), role-playing (item 6, 80%), and business simulators (item 7, 80%). These preferences are indicative of a desire for the students to be ‘doing things’ with others that may extend beyond the classroom boundaries and result in them gaining “benefit from the exchange of ideas with experienced faculty members and alumni” (Alves et al. 2018, 102) as well as industry practitioners. The university environment, through these activities, can “shape the conditions for student entrepreneurship to thrive through the promotion of events, workshops, junior companies, and student organizations that cultivate entrepreneurial practices” (Alves et al. 2018, 102).

Table 12: Learning Methods/Techniques (N = 30)

Learning Methods/Techniques	Not Useful at All	Not Useful	Somewhat Not Useful	Neutral	Somewhat Useful	Useful	Very Useful
1. Tasks and essays	2 (6.7%)	0 (0%)	2 (6.7%)	6 (20%)	14 (46.7%)	2 (6.7%)	4 (13.3%)
2. Special projects	0 (0%)	1 (3.3%)	0 (0%)	4 (13.3%)	6 (20%)	10 (33.3%)	9 (30%)
3. Business games	0 (0%)	0 (0%)	2 (6.7%)	2 (6.7%)	6 (20%)	10 (33.3%)	10 (33.3%)
4. Case studies (focus on social and cultural)	0 (0%)	0 (0%)	3 (10%)	6 (20%)	7 (23.3%)	7 (23.3%)	7 (23.3%)
5. Psychological counselling (personality tests)	1 (3.3%)	2 (6.7%)	0 (0%)	6 (20%)	4 (13.3%)	9 (30%)	8 (26.7%)

<i>Learning Methods/Techniques</i>	<i>Not Useful at All</i>	<i>Not Useful</i>	<i>Somewhat Not Useful</i>	<i>Neutral</i>	<i>Somewhat Useful</i>	<i>Useful</i>	<i>Very Useful</i>
6. Role-playing (e.g., manager shading)	1 (3.3%)	2 (6.7%)	1 (3.3%)	2 (6.7%)	8 (26.7%)	8 (26.7%)	8 (26.7%)
7. Business simulators	0 (0%)	1 (3.3%)	1 (3.3%)	4 (13.3%)	5 (16.7%)	10 (33.3%)	9 (30%)
8. Lectures by experts (entrepreneurs) in the field	0 (0%)	0 (0%)	2 (6.7%)	1 (3.3%)	4 (13.3%)	8 (26.7%)	15 (45%)

Discussion

There are currently forty-three universities in Australia, with only a few being private organizations. In the context of entrepreneurship education, the majority of programs on offer are at the undergraduate level, followed by master's programs and graduate certificates, with only a small offering of graduate diploma courses, as shown in Figure 5.

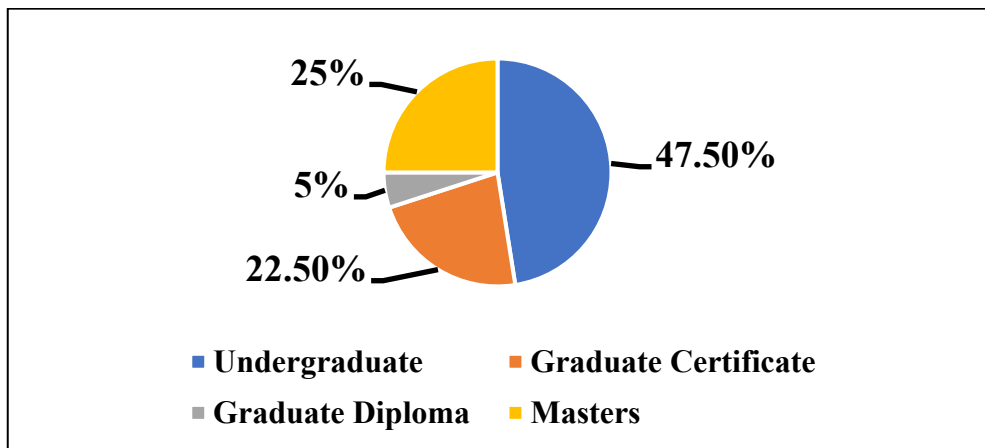


Figure 5: Type of University Entrepreneurship Courses (N = 40)

In terms of geographical distribution, not all states have university courses on offer, as shown in Figure 6. The Northern Territory and Tasmania offer no entrepreneurship programs, while Queensland (the third most populous state) only has postgraduate-level programs on offer. The greatest concentration of undergraduate programs is in NSW, the most populous state, but in aggregate terms, Victoria (second most populous state) and South Australia (4th most populous state) offer the greatest number of programs. As “entrepreneurship education not only provides human capital such as knowledge and skills but may also transform the attitudes and behaviors of students” (Wei, Liu, and Sha 2019, 7), the unavailability of such programs has the potential to limit development opportunities in this field, as not all would-be students are willing, or able, to move to another part of the nation. We consider this to be a potentially significant negative factor for future entrepreneurship development because the lack of an appropriate entrepreneurial education may limit future success (Boldureanu et al. 2020) and contribute to start-up failures (Sharma 2019).

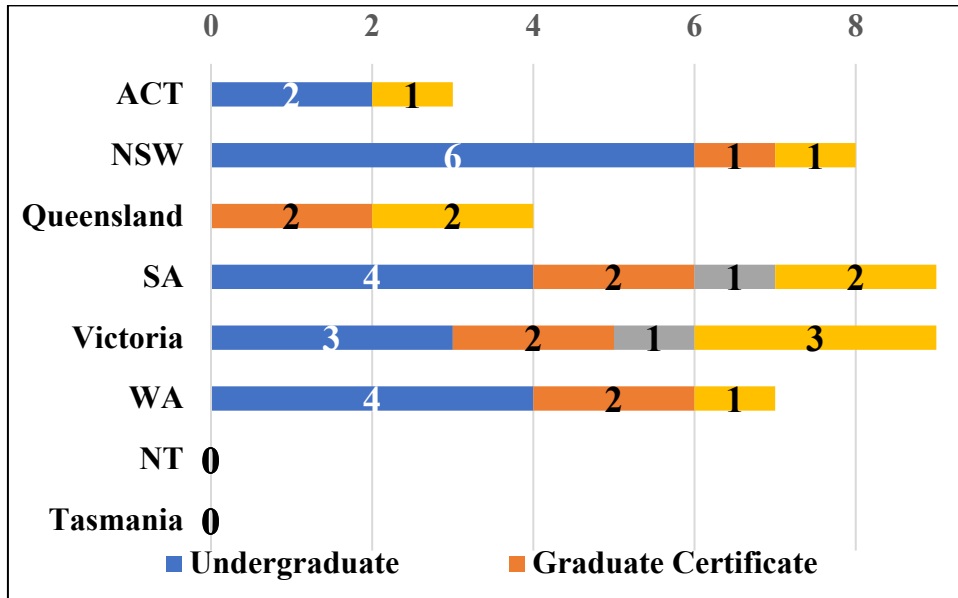


Figure 6: University Entrepreneurship Programs of Study Geographical Distribution

We also wanted to ascertain what type of activities formed part of the curriculum and, consequently, the different types of learning activities students may undertake to enhance their entrepreneurial skills. We looked at a random sample of universities’ websites to locate details of individual units of study, but this proved to be a lot more difficult to achieve than we first imagined. Some educational institutions appeared to have information readily available, but on closer scrutiny, details were scanty at best, and trying to obtain micro details of specific units became very difficult. This may be a function of poor page design, a need to keep public domain information limited because of “commercial” sensitivities (not letting competitor institutions have easy access to own resources and ideas), or deliberately done to encourage course registration for marketing and further follow-up by the institution, with a view to increasing student numbers. Some universities require registration in order to be able to download a course guide. Other institutions had comparatively much easier and more readily available details about the course and its learning approaches. We found that the major weakness in studies in entrepreneurship education was that while there were strong statements made by scholars, these were of a generic nature based on principles of pedagogy and knowledge and skills. Given our experience of the difficulty of obtaining information, these statements need to be challenged. Based on our search and findings, we also believe universities lack readily available information on programs of study from which students may make informed choices.

Therefore, on reviewing the information available, we found that any potential student wishing to make a choice on an entrepreneurial education would find it rather difficult to make an informed decision. We also found, with the universities that showcased the full design of subjects, that the curriculum lacked any subject that taught entrepreneurial orientations, which looks at dispositional or behavioral constructs (Bernoster, Mukerjee, and Thurik 2020; Covin

and Lumpkin 2011). It was also identified in the 2018 OECD report that problem-solving skills, mostly on the ‘shopfloor,’ were much needed, which relates to quick, creative thinking styles that meet strategic objectives. Instead, the curriculum at most universities was found to be heavy on business-related units and where it was often part of a major or minor of a Bachelor of Business degree. At the postgraduate level, if there was a Master of Entrepreneurship offered, the units that made up this course were not readily available. The random website audit clearly highlighted to us that competency and learning in creativity, proactive motivation, and entrepreneurial leadership behavioral skills, especially on entrepreneurial alertness and mindset—as identified by an ongoing longitudinal study called the Mind-the-Gap project (Obschonka et al. 2017) as being critical to the development of entrepreneur career-ready graduates—was absent or not clearly articulated on the websites promoting these courses. We highlight behavioral skills as important foundational knowledge to increase students’ confidence and graduate with employability skills in an entrepreneur’s career path.

Analyzing how ready graduates are for an entrepreneurial career, we found capstone subjects and internships were available options, as there were some references made to industry partners, but the role these played in educational activities or building the necessary general skills, attitudes, and context-based skills was not clearly articulated. With most work experience placements at universities, it has traditionally been the practice to engage students in established businesses and particular jobs. There is little or no evidence that start-ups were part of this internship mix.

Some universities did not appear to have internships available as an option within the entrepreneurial courses even though they stated that students are able to get hands-on help from experts and professionals, implying some industry embedding into their courses. Again, nothing specific could be discovered. Our search showed that there has been a rise in universities setting up labs or entrepreneurs-in-residence to link with the entrepreneurship courses directly or present as a service for students to reach out separately. We agree with Etzkowitz’s (2014) argument that universities need to think about themselves as places of knowledge capital, link users to it, and act as an economic center.

In summary, there appear to be varying degrees of options for students undertaking entrepreneurship courses, but we note considerable variations where no two universities were offering similar entrepreneurship courses. While scrutinizing practice-oriented learning specifically in entrepreneurial studies, it was found that there were hardly any internships offered to students within startups. Furthermore, we can presume that universities have acted rapidly to offer mainly creative experiences that had a focus on the entrepreneurial process, such as engaging in incubators or accelerators and with entrepreneurs-in-residence, which mainly focused on providing students with the knowledge of how to ready themselves to pitch and venture into capitalist endeavors rather than finding and matching students with relevant startups to develop their startup experience—one that entailed learning about successes and failures in startups and the importance of building some staple learning. Additionally and interestingly, any offering we found on internships or practice-oriented studies was not entirely competing between universities. This again justified our presumption that the design of

entrepreneurship units did not completely address the practice-oriented approach. This then raises for us a question as to whether universities are really offering an internship tailored to students' desired career goals (Tovey 2001; Yi 2018) of being an entrepreneur.

We believe that for students to gain a deeper understanding of the characteristics and approaches of entrepreneurial internships, such internships for students enrolled in entrepreneurial courses need to be in start-ups. There also needs to be clarity at which stage of the start-up the students are placed in so that they are clear of their practice context. The various stages of a start-up, in three simple stages, are early stage, growth stage (venture funded), and late stage (company). Several studies have been done to prove that internships are the best way to develop transferable skills and, more importantly, help students build a network and build their social skills. Embedded internship programs will not only provide real-life experience and help students to get insights into new careers, but they will also be powerful development tools (Little and Harvey 2006). As Wilson (2013) identified, this will assist students in managing their personal lives and career choices better in the changing work landscape.

Research Boundary, Limitations, and Implications

Our research had a clear boundary, where we looked specifically at entrepreneurial programs in Australia, aiming to enrich our readers with insights into what Australian universities were offering. The survey results gathered from the students also further enriched our findings and provided perspectives. The results have implications on what students really are exposed to and what information they must have to make informed decisions and obtain the best study and experience in their entrepreneurship education.

Some limitations of this article include the fact that we did not do a deeper analysis of emotional orientation and values with individuals connected to their selection of the study areas. Therefore, the students surveyed were unable to comment on this aspect. We only conducted desktop research on course offerings in entrepreneurship in Australia, and this may be argued as a limitation, but we believe it was an important way to also assess how universities were publicizing their courses. This also provided us robust insight into the gap on the expectations between respondents to the survey and what we found through the desktop research of universities in Australia. Another limitation was that we did not contact the universities to discuss what unique offerings they had in the entrepreneurship program.

The significant implication of our study is that practical and social inputs in education are critical to transforming students into adopting entrepreneurial attitudes. Our study also suggests that connections of values, beliefs, and ability to manage stress and emotions need to be further researched to enrich the educational journey for those who wish to pursue entrepreneurial pathways.

Conclusion

As self-reflective researchers, we wish to acknowledge the limitations and delimitations of our study, as discussed above. The research design was based on the initial design conducted in a European university, and to support the consistency in research, we did not alter any questions for the Australian university. We decided to run the same survey through Qualtrics to understand two different higher education regions' entrepreneurship. This also means that we would be able to, as an ongoing research contribution, perform a comparative study at a global level to share a more meaningful understanding of how entrepreneurship is approached to provide students with an authentic outcome. However, we acknowledge that this could have potentially influenced the responses, as universities in Australia and Europe structure their curriculum differently. Furthermore, in our discussion section, our attempt to review the offerings by the Australian universities was limited to what was available from our desktop research that was available from Google searches and the university websites.

In summary, entrepreneurship education needs to be reviewed, in detail, to ensure that the curriculum is designed beyond the culmination of business units but includes behavioral, leadership, and even skills development in evidence-based research to build real-life experiential learning so that graduates can be made more entrepreneurial in our twenty-first century world of work. Start-ups and early ventures can be excellent playgrounds for students, with the former also benefiting from students who engage in their learning and creativity, while allowing students to build their self-confidence.

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Informed Consent

The authors have obtained informed consent from all participants.

Conflict of Interest

The authors declare that there is no conflict of interest.

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