

# Investigating students' perceptions of the University of KwaZulu-Natal inqubate-enspire programme in developing student entrepreneurs



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**Background:** Universities and governments globally are now opting for and enforcing student entrepreneurship policies as a means to curb economic imbalances and address unemployment issues. The University of KwaZulu-Natal (UKZN) is no exception to this trend as it has now introduced entrepreneurship programmes through course offerings as well as a fully operational programme, known as the UKZN inqubate-enspire that caters for students' entrepreneurship needs.

**Aim:** The aim of this study was to investigate the perceptions of UKZN students of the role and effectiveness of the UKZN inqubate-enspire programme in developing student entrepreneurs as well as the role of the programme in assisting the university to become an entrepreneurial university.

**Setting:** This study was conducted at UKZN campuses in Durban, which included Howard College and Westville.

**Methods:** A qualitative case study design was embraced. Using a convenience sampling approach, a total of nine students who had participated in the UKZN inqubate-enspire programme were selected. Data were collected using face-to-face semi-structured interviews and analysed with the use of thematic analysis.

**Results:** Participants revealed that the programme has sparked an entrepreneurial mindset in them and that they have obtained many skills, which will assist them in their future endeavours. However, participants also encountered a number of challenges such as the inability to balance academic work and running their business and inconsistencies in the mentorship programme. Lastly, the participants perceived that this programme made a contribution towards UKZN becoming an entrepreneurial university; however, they averred that this programme still needs much improvement to achieve this.

**Conclusion:** It was discovered that although this programme is effective, there are shortcomings that need improvement to make this programme more effective and assist the university towards becoming an entrepreneurial university. The findings will make a significant contribution to entrepreneurship education theory and practice. This study will add to the entrepreneurship education literature and open doors for future studies on this programme or similar entrepreneurship education programmes.

**Keywords:** entrepreneurship; entrepreneurship education; business incubator; inqubate-enspire; student entrepreneurs; tertiary education.

## Introduction

Universities and governments globally are now opting for and enforcing student entrepreneurship policies as a means to curb economic imbalances and address unemployment issues (Jansen et al. 2015). Some universities have involved incubation as part of their entrepreneurship education programmes. This study seeks to investigate the effectiveness of the inqubate-enspire programme offered at the University of KwaZulu-Natal (UKZN), an entrepreneurship education programme offering some aspects of a business incubator. The services offered by UKZN inqubate-enspire include:

Mentorship, business development and market research, networking, provision of infrastructure/office space in a supportive environment, business registration, protection of intellectual property (including patents, trademarks, designs, copyright and know how) among others. (Singh 2017:9–10)

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This research is of paramount importance as it will assist the university to review its policies and programmes offered by the inqubate-enspire programme and enhance those programmes where they need to be enhanced. Not only will this study benefit UKZN but it will also benefit other universities in terms of how they can improve their entrepreneurship programme offerings and be more effective towards becoming entrepreneurial universities.

According to the extant research, South Africa is amongst the countries with the lowest entrepreneurial intentions, as low as 15.4% (Malebana & Swanepoel 2015). Also, it has been observed that there is a high failure rate of small businesses in South Africa before they reach maturity (Leboea 2017). Furthermore, South Africa is among the countries with the highest rates of unemployment (Jansen et al. 2015). Entrepreneurship education has been introduced in many institutions, including UKZN, in order to encourage students to venture into entrepreneurship. The purpose is to curb the high unemployment rates, especially amongst the youth, as well as to overcome the predicament of businesses failing before reaching maturity (Massad & Tucker 2009 cited in Shambare 2013; Olufunso, 2010 cited in Achchuthan and Kandaiya 2013; Leboea 2017). However, based on exploratory research carried out in 2018, it was discovered that the entrepreneurship modules offered at UKZN are more theoretical rather than practically oriented (Cele 2018). To overcome this predicament, UKZN initiated an entrepreneurship programme called UKZN inqubate-enspire, which seeks to close the gap between theory and practice in its entrepreneurship programme offerings. However, there is a lack of information available to show the effectiveness of this programme. The following key research question guided the study: How do students perceive the role and effectiveness of the UKZN inqubate-enspire programme? Accordingly, the study sought to achieve two objectives: (1) to determine the perceptions of UKZN students of the role and effectiveness of UKZN inqubate-enspire programme in developing student entrepreneurs and (2) to examine the role of the UKZN inqubate-enspire programme in assisting the university to becoming an entrepreneurial university.

The findings will make a significant contribution to entrepreneurship education theory and practice and will add to the body of knowledge of business incubators in higher education institutions and its effectiveness in developing student entrepreneurs and assisting these institutions in becoming entrepreneurial. The remaining sections of this article include the following: Firstly, an overview of the relevant literature is presented; secondly, the research methods and design are discussed; thirdly, the study findings and relevant discussion are provided; and finally, the conclusion.

## Literature review

### Defining student entrepreneurship

The words 'academic entrepreneurship' and 'student entrepreneurship' or 'entrepreneurship education' are usually used interchangeably within the research space (Marchand &

Hermens 2014). However, Alves et al. (2019) stated that student entrepreneurship is just a branch or a dimension of academic entrepreneurship. Student entrepreneurship entails the promotion of entrepreneurship through either the sale of research or through the cultivation of entrepreneurial skills amongst students, as well as exposing the students to the entrepreneurship opportunities (Sandip & Salve 2016).

Miranda, Chamorro-Mera and Rubio (2017) defined student/academic entrepreneurship as the situation whereby businesses are formed based on the research conducted by a person from a certain institution. Marchand, Hermens and Sood (2016) defined student entrepreneurs as registered university students who run their small business ventures within or nearby the university. Apple, Microsoft, Dell, Facebook and Snapchat are said to be a few examples of businesses that were initiated by the students while they were in an institutional environment (Alves et al. 2019). Bergmann, Hundt and Sternberg (2016) simply defined student entrepreneurs as individuals that start businesses while they are still registered at higher education institutions.

It can be observed from the given definitions that Marchand et al. (2016) and Bergmann et al. (2016) had similar ideas in defining the concept of student entrepreneurship. There is still incongruity as to whether academic entrepreneurship is the same as student entrepreneurship. Marchand and Hermens (2014) stated that these terms are used interchangeably, and Alves et al. (2019) stated that student entrepreneurship is just a branch or a dimension of academic entrepreneurship.

## Entrepreneurship education

### Theoretical student entrepreneurship education approach versus practical student entrepreneurship education approach

There is great controversy in the research field as to whether the theoretical approach to entrepreneurship education is more effective compared with the more practical approach (Wright, Siegel & Mustar 2017). In the theoretical approach, students are taught about the principles and concepts of entrepreneurship. This is in contrast to the more practical approach, where students participate in entrepreneurship activities such as competitions in writing business plans. The field of entrepreneurial education has been of interest amongst different stakeholders as it offers to students the expertise and competencies required to start and manage their own businesses (Gimmon 2014). In recent years, higher education institutions have been reviewing their traditional student entrepreneurship curricula as a result of the observed lack of proportional growth in students' businesses (Morris, Shirokova & Tsukanova 2017). It was highlighted that among the factors that contribute to the lack of growth in these student businesses is a lack of support structures such as capital, mentorship and resources (Morris et al. 2017).

According to research conducted by Din, Anuar and Usman (2016) on the effectiveness of entrepreneurship education in

a Malaysian public university (Universiti Utara Malaysia), there is a correlation between the effectiveness of the entrepreneurship programmes offered by the university and entrepreneurship readiness for the learners. Research conducted by Karimi et al. (2016) proved that the entrepreneurship education offered by the university cultivated the innovative idea generation skills of students who participated in the course compared with those who did not participate.

According to Alborno, Amorós and Pérez-Carrón (2011) and Peterman and Kennedy (2003) cited in Gimmon (2014), students' intentions to become entrepreneurs show an increase when exposed to practical experiences of the entrepreneurial and business world through practical entrepreneurship programmes. A study conducted in a Nigerian institution revealed that entrepreneurship education was not sufficient to encourage students to become entrepreneurs as the number of unemployed still persisted after the students were exposed to entrepreneurship courses; hence, there is a need for a more practical approach, such as incubation (Ikebuaku & Dinbabo 2018).

#### **Effectiveness of business incubators based in universities**

Business incubators can be defined as mediums that seek to assist small businesses to mature faster through providing the necessary resources and guidance (Bone, Allen & Haley 2017). Bennett, Yábar and Saura (2017) stated that most universities have actually resorted to this approach as means to alleviate small business failure at their nascent phase. The question remains whether these business incubators offered in higher education institutions are effective.

According to a study conducted by Kolympiris and Klein (2017), there are advantages and disadvantages of business incubators in higher education. It was found that business incubators are useful in the sense that they promote profit-oriented innovations and successful business start-ups. However, these incubators result in a cost to the university; there is an observed decrease 'in the average quality of the university's patents, controlling for patent-, university- and time-specific characteristics' (Kolympiris & Klein 2017:165).

Culkin (2013) conducted research on the effectiveness of the university incubators in the United Kingdom. He discovered that 68% of the participants were pleased with the services they obtained. He also discovered that the university incubators played a crucial role in the success of small businesses and asserted that the start-ups involved in the university incubators have a greater chance of survival compared with their counterparts without incubation; however, it is felt that more research still needs to be carried out in this area (Culkin 2013).

Polónia, Cunha and Leite (2020) conducted research in Portugal on the performance of 64 companies that were in the technology industry. Half of these companies had recently graduated from the university incubation programmes and

the other half never received any incubation. These companies were of the same age and were based in the same district. Polónia et al. (2020:1) discovered that there was minimal difference on the general performance of these companies, however, after a consideration of specific indicators, the companies that underwent incubation 'behaved differently from non-incubated ones in terms of the productivity of their intangible assets, grant dependency and external markets openness'.

Lose et al. (2016) conducted a study on the role of business incubators in South Africa in 2016 and suggested a need for a study on why South African higher education institutions lack business incubators. This suggests that the introduction of business incubators in South African higher education institutions is still at its infancy. However, according to Jackson (2016), most South African higher education institutions are now introducing business incubators with the intention of instilling the culture of entrepreneurship in their institutions; examples include University of Cape Town, Stellenbosch University and University of Pretoria (Jackson 2016). There are no studies known to the researchers about the effectiveness of the business incubators based in these universities.

#### **Entrepreneurial university: What is it?**

Peterka and Salihovic (2012) and Rubens et al. (2017) stated that the concept of entrepreneurial universities was initiated in response to societal, economic and environmental needs and also to address the financial needs of institutions. This concept became popular amongst academic scholars and policymakers in the 20th century as they were trying to find a suitable definition and description to this phenomenon (Guerrero & Urbano 2012 cited in O'Reilly, Robbins & Scanlan 2019). Jameson and O'Donnell (2015) argued that entrepreneurial universities positively influence the society through investing and influencing the different stakeholders using its activities. Johnston and Huggins (2016) concurred with Jameson and O'Donnell (2015) in their definition and understanding of the entrepreneurial university as they also opined that entrepreneurial universities collaborate with different stakeholders to impact and foster change in society.

Fayolle and Redford (2014), and Etzkowitz et al. (2019) stated that there is still uncertainty in the research space about the exact definition of the entrepreneurial university; however, different scholars have come up with different definitions of this phenomenon. According to Etzkowitz et al. (2000), cited in Pugh et al. (2018), the entrepreneurial university undertakes entrepreneurial pursuits to add value to the financial status of the university and also to the growth of GDP of the country or region in which it is based. Mascarenhas et al. (2017) stated that entrepreneurial universities are those universities that foster entrepreneurial intents and entrepreneurial pursuits among its students through availing opportunities and creating a conducive environment for entrepreneurial activities. Audretsch (2014) argued that entrepreneurial universities were initiated not

for the benefit of the universities only but for the benefit the community as well through conducting research, which seeks to address social predicaments.

To guide this research, the 'three-stage student entrepreneurship encouragement model (SEEM)' was employed (Jansen et al. 2015:172). This conceptual framework as shown in Figure 1 offers feasible methods that universities could employ on the journey towards becoming entrepreneurial universities. The methods are separated into three factors that will be studied in greater detail; these are 'educate, stimulate and incubate' (Jansen et al. 2015:172).

The given framework provides plausible ideas or techniques that could improve overall university entrepreneurship education. It also offers techniques that could be employed in incubation to make it more effective at universities.

### Educate

Kuratko and Hoskinson (2017) stated that there has been a notable increase in the number of higher education institutes globally offering entrepreneurial education compared with when they started. According to Jansen et al. (2015:172), educating entails 'providing supportive staff, highlighting role models and success stories and offering introductory entrepreneurship courses'. Nowiński et al. (2019) averred that entrepreneurship education plays a significant role in increasing the students' entrepreneurial intentions. However, other scholars oppose the notion that entrepreneurship is a viable tool to encourage students to be entrepreneurs. Dou et al. (2019) argued that the effectiveness of entrepreneurship education depends on environmental factors, and this results in different experiences for different participants.

Nielsen and Gartner (2017) conducted research in a Scandinavian university about the role of entrepreneurship education in producing successful entrepreneurs. Their findings were that entrepreneurship education causes or brings confusion to students; they become confused about

their role, being students or entrepreneurs. In the process, these confused students end up neglecting one or either of the two responsibilities as a result of the workload, stress and lack of time management. The authors stated that most of the businesses started by these students did not mature and become successful. Nielsen and Gartner (2017) concluded that the university is not a conducive environment to instil entrepreneurial intentions.

Ramchander (2019:1) observed that South African universities do not have their own structured curricula for entrepreneurship education but use an 'international best practice approach'. According to Nieuwenhuizen et al. (2016), the international best practice entrepreneurship education approach comprises no specific qualification for entrepreneurship at undergraduate level. However, universities offer entrepreneurship modules to cater for entrepreneurship education as well as business incubation programmes. Students only get to specialise in entrepreneurship at a postgraduate level as per the international best practice approach (Nieuwenhuizen et al. 2016). Musetsho and Lethoko (2017) concurred with the above-mentioned scholars as they highlighted that the majority of universities offering entrepreneurial education in South Africa do not have a specific entrepreneurship degree; however, they have incorporated entrepreneurship modules into certain business management qualifications.

### Stimulate

According to Jansen et al. (2015:172), stimulating entails 'support founding formation, providing mechanisms for idea validation, providing pitching opportunities, supporting business plan creation and enabling prototype development'. Entrepreneurial stimulation can be defined as factors used to induce or encourage people to become entrepreneurs (Shumba 2015).

The Tunisian government added an entrepreneurship track where students were offered business training and coaching through business plan creation as part of their plan to enhance

Entrepreneurial university		
Educate	Stimulate	Incubate
E1. Provide support staff and facilities	S1. Support founding team formation	I1. Meet and work with other entrepreneurs
E2. Highlight role models and success stories.	S2. Provide mechanisms for idea validation	I2. Provide office space
E3. Offer introductory entrepreneurship courses	S3. Provide pitching opportunities	I3. Offer mentoring to start-ups
	S4. Support business plan creation	I4. Provide networking opportunities
	S5. Enable prototype development	I5. Organize business plan competitions
		I6. Establish accelerator programs
		I7. Provide funding
Wake up dormant entrepreneurs	Support the process from idea to business plan	Incubate the young companies until they can survive independently

Source: Jansen, S., Van De Zande, T., Brinkkemper, S., Stam, E. & Varma, V., 2015, 'How education, stimulation, and incubation encourage student entrepreneurship: Observations from MIT, IIT, and Utrecht University', *The International Journal of Management Education* 13(2), 170–181. <https://doi.org/10.1016/j.ijme.2015.03.001>

FIGURE 1: Three-stage student entrepreneurship encouragement model.

their entrepreneurial education offerings (Premand et al. 2016). The inclusion of this element resulted in overall increased future aspirations from graduates and a slight increase in the number of self-employed students; however, the overall employed remained the same (Premand et al. 2016).

Pallotta and Campisi (2018:317) conducted research where they compared the businesses that underwent stimulation processes such as business idea initiation and business concept process, which entails the initial 'business idea validation, business validation and start-up innograts'. In their research they discovered that businesses that underwent stimulation grew much healthier compared with those that were not stimulated. Cornett (2018) stated that entrepreneurial stimulation programmes play a very crucial and pivotal role in the European continent and thus have also been included in policies.

### Incubate

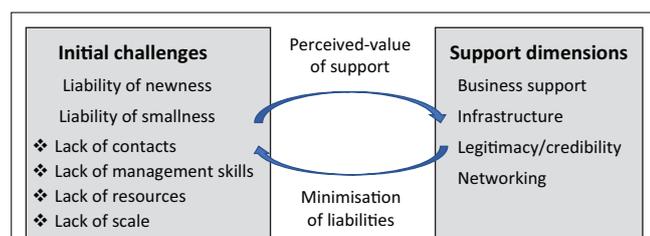
Incubation is one of the newest tools that universities are using to become more entrepreneurial and make their entrepreneurship programme offerings more effective. McAdam, Miller and McAdam (2016) stated that incubation has become a tool that the universities use to stay competitive, to boost the economy and support start-ups.

Figure 2 depicts the value that incubators add to the student entrepreneurs. From the figure we can see the initial state of the infant business or the newly initiated business. It can be seen that small businesses usually encounter challenges such as 'lack of contacts, lack of resources and liability of smallness', which puts them at a disadvantage in relation to their already established competitors (Roseira et al. 2014:14). Their participation in the incubation programmes affords them an opportunity to gain skills and resources such as 'networking, business support infrastructure and legitimacy/credibility', which assists them to stay competitive (Roseira et al. 2014:14).

## Research methods and design

### Study design

A qualitative exploratory and case study design was embraced in this study. A qualitative study aims to uncover an in-depth explanation of participants' experiences of the phenomena under investigation. This study is exploratory in



Source: Roseira, C., Ramos, C., Maia, F. & Henneberg, S., 2014, *Understanding incubator value a network approach to university incubators*, University of Porto-FEP-School of Economics and Management, 1–32, viewed 12 November 2020, from <https://wps.fep.up.pt/wps/wp532.pdf>

FIGURE 2: Potential of value-adding support by the business incubator.

its nature as it is novel and very little research has been undertaken in this area in the past. This study is a single case study as it focuses on the UKZN inqubate-enspire programme.

### Setting

This study was conducted at UKZN, Durban campuses that included Westville and Howard College.

### Study population and sampling strategy

The population of this study is based on the pool of students selected when the UKZN inqubate-enspire programme sent out an invitation to the UKZN community to participate in the different entrepreneurial competitions they hosted. These students were part of the programme from 2017 to 2019. The population size of students enrolled between 2017 and 2019 is estimated to be 40 students. The sample size of this study was nine respondents, chosen from the population of UKZN registered students in 2019 who participated in the UKZN inqubate-enspire programme. Seven of these participants were from Westville campus and two were from Howard College. Nine participants were selected because it was believed that these would be sufficient to reach a point of saturation. To conduct this study, a non-probability convenience sampling method was used, whereby participants were selected based on their accessibility and willingness. The students who had participated or were participating in the UKZN inqubate-enspire programmes were approached through different mediums of communication, that is, emails, phone calls and social media.

### Data collection

To carry out this research, face-to-face semi-structured interviews were conducted. The interviews were held at UKZN Westville campus and UKZN Howard College. These interviews were carried out in different quiet areas that were identified on these campuses. The interviews were guided by an interview schedule. The researcher started by introducing the study to the participant and then the interview was proceeded by the researcher asking the questions and the participant responding to those questions as per the interview schedule. However, as the interviews were semi-structured in nature, the researcher probed further questions to get clarity where it was needed. Interviews were employed to get information on the individual experiences of participants in the inqubate-enspire programme. The interviews were semi-structured to allow for flexibility and clarity during the interviews (McLeod 2014). Conducting face-to-face interviews is of great advantage as it allows the researcher and the participant to probe for clarity if there is any misunderstanding in the process of the interview (Sekaran & Bougie 2016). Face-to-face interviews are more effective, cheap and flexible, as they are open-ended, compared with other forms of data collection (Sekaran & Bougie 2016).

## Data analysis

Data analysis method refers to the method by which the data are analysed and interpreted after it has been collected (Sunday 2018). There are different methods used to analyse data after it has been collected. One method, thematic data analysis, entails deducing themes from the qualitative data collected (Braun et al. 2019). The data collected for this research was coded through the use of NVivo 12 software and then analysed through the use of thematic analysis. NVivo 12 is a software or an application used to collect, organise, analyse, code and visualise unstructured or semi-structured qualitative data (La Trobe University 2020). The thematic analysis was guided by Braun and Clarke's (2006) six-step process that included the authors' familiarising themselves with the data, generating the initial codes, searching for the relevant themes, reviewing the themes, defining and naming the final themes and completing the write-up of these themes.

The data were audio recorded during the interviews then typed verbatim in a Microsoft Word document. This Word document was then exported to the NVivo 12 software. After that, each question was reconstructed to make it shorter and not take much space in the project map. The responses to each question were then summarised into shorter themes and those responses were coded into themes. Sub-themes were formulated based on the responses from the themes; for example, if a theme had responses that had different categories, it was then segmented further into sub-themes.

Lincoln and Guba (1985) dimensions of trustworthiness are relevant to qualitative research. These include credibility, conformability, dependability and transferability. Therefore, trustworthiness was enhanced by means of the following activities: triangulation of data, member checking of interview transcripts and keeping of copious notes describing various aspects of the research process.

## Ethical considerations

To ensure that the ethical requirements are met, the research proposal was drafted and sent to the registrar's office for the gatekeepers' letter approval. After the gatekeepers' letter was obtained, it was then sent to the research office together with the research proposal, interview questions and the informed consent forms, which then granted the researcher permission

(ethical clearance reference number: HSSREC/00000584/2019) from UKZN to proceed with the collection of data. While conducting the interviews, the participants were given informed consent forms to sign, which ensured the anonymity and confidentiality of their responses. This informed consent form was in line with the ethical requirements of research and was approved by the research office. Fictitious names were used instead of actual names to ensure anonymity of the participants. The participants were not forced to participate in this research but were asked to participate voluntarily. This research did not pose any harm to the participants and they were informed that they could withdraw anytime during the interview if they felt like discontinuing.

## Findings

Table 1 provides a summary of the participants' profiles. This study comprised eight African male participants between the ages of 19 and 25 and one African female participant in the 19–25 age range. The majority (78%) of these participants were from the Westville campus. The participants were selected based on accessibility and willingness to participate. Fifty-five per cent of the participants for this study had no businesses before participating in this programme, which implies that they had little or no experience running a business prior to participation. Only three of the participants had a commerce background: Paul, Elias and Robert were exposed to the introductory entrepreneurship course offered by the university to commerce students in their second year.

### Objective 1: To investigate the perceptions of University of KwaZulu-Natal students of the role and effectiveness of University of KwaZulu-Natal inqubate-enspire programme in developing student entrepreneurs

#### Theme 1: Challenges encountered during participation in the programme

**Sub-theme 1.1: Inability to balance academic work and running a business:** Three participants stated that one of the major challenges they encountered was striking a balance between their academic work and taking care of their businesses. Once the students were accepted to be part of this programme, they attended different sessions, held almost every week, on top of having to keep pace with their academic work. Some of these sessions were sometimes held

**TABLE 1:** Profiles of the participants.

Pseudonym	Gender	Age	Race	Campus	Educational level	Discipline	Owned business prior to participation
1. Peter	Male	19–25	African	Westville	Third year	Life science	No
2. James	Male	19–25	African	Westville	Fourth year	Sport science	No
3. John	Male	19–25	African	Westville	Fourth year (Honours)	Social science	No
4. Paul	Male	19–25	African	Westville	Third year	Information systems and technology and supply chain	Yes
5. Steven	Male	19–25	African	Howard	Second year	Civil engineering	Yes
6. Michael	Male	19–25	African	Howard	Third year	Computer engineering	Yes
7. Elias	Male	19–25	African	Westville	Third year	Economics	No
8. Robert	Male	19–25	African	Westville	Fifth year (Masters)	Industrial relations	Yes
9. Mary	Female	19–25	African	Westville	Third year	Environmental sciences	No

close to the examination period, which really affected some of these participants:

'... while we were participating in the programme, we were also doing some academic work, so we didn't have much time to focus on our business idea and our business. The mentorship programme was in June and we were required to submit a business proposal, so, we couldn't finish our business proposal because of the academic exams, that's why we pulled out of the programme.' (John, male, 19–25 years old)

Running a business comes with a great deal of responsibility, which requires a large amount of time. This then calls for the student entrepreneurs to learn about time management as soon as possible to be able to master the different responsibilities with utmost excellence. However, more systems need to be put in place to ensure that this programme does not end up taking up more time and negatively affecting the students' academic work.

#### **Sub-theme 1.2: Inconsistencies in the mentorship offerings:**

Participants stated that the programme had inconsistencies in terms of the mentorship offerings. Mentorship can be defined as a process whereby one gets assistance and guidance on a particular area from someone who has experience in that particular area (Cooke, Patt & Prabhu 2017). Peter stated that they were assigned specific mentors at the beginning of the programme but as the time went by, those mentors did not continue to assist them:

'... I have received from them financial support, academic support that they provided and the help of the mentors at the beginning of a programme. However, the mentorship programme is no longer provided. What I can say is a bit of a problem from them is that as the project progresses, as a student entrepreneur, the academic stresses and other stresses exerts pressure on you, you don't have someone to turn to because we no longer have mentors.....' (Peter, male, 19–25 years old)

Some of the participants had a different view or perspective on the mentorship offerings. These participants showed great appreciation for the help they have received from the mentorship:

'In terms of how they have assisted us, is that we had a mentor who was helping us on how we can develop our ideas in terms of looking for business aspects, for example, when you are looking at marketing segments, what to look at. They also prepared us in terms of how to pitch to the investor once you have a business idea and have made a business proposal.' (John, male, 19–25 years old)

Mentorship is one of the important aspects in the development of the student entrepreneurs (Ahsan et al. 2018). Fifty-five per cent of the participants stated that they did not have businesses prior to participation in this programme, hence a need for mentorship. This implies that they had little or no experience of running a business. Research has shown that student entrepreneurs encounter a number of challenges, which affects both their academic work and the growth of their businesses; therefore, mentorship is invaluable in overcoming this predicament (Ahsan et al. 2018).

**Sub-theme 1.3: Less attention and acknowledgment of different business sectors:** A few participants stated that this programme mostly caters for a single business sector, that is the technological sector and pays little attention to other sectors. As a result, James stated that they felt that their business sector, which was agricultural in nature, was less acknowledged:

'We had a problem because our business was more on agriculture and food security. Most of the people were not knowledgeable about the agriculture and food security sector; they were more knowledgeable about the innovative and technological sector. If you present the business about agriculture like us, we felt like they didn't understand like they should, and they didn't see the way we see things..... That was the major problem for our business; we didn't get that much acknowledgement and significance.' (James, male, 19–25 years old)

There is currently a paradigm change in the technical sphere or industry globally as we are currently living in the Fourth Industrial Revolution (Xu, David & Kim 2018). Perhaps this accounts for the greater emphasis on highly innovative and technical business ideas. The lack of a broad range of industry experience of staff members responsible for this programme may perhaps account for this. However, it is important that the universities cater for all entrepreneurial spheres in their entrepreneurial programmes.

### **Theme 2: Impact on the development of student entrepreneurs**

**Sub-theme 2.1: Offers a range of support services:** Participants asserted that they received a wide range of support services from the incubate-enspire programme. This included support services such as networks and financial support that has significantly impacted their entrepreneurial journey:

'They have given us time to network.....Our communication is good; it made us to be open to ask questions whenever we like. If we are concerned about something, they made it so easy to come and talk to them and ask them questions.' (Steven, male, 19–25 years old)

'What I can say is that it is really open to ideas; it is really not easy to find an incubation programme that funds an idea. They help you to grow your idea and they fund your idea.... That's what I think is the major highlight for me.' (Peter, male, 19–25 years old)

Finance or capital is a fundamental aspect for starting and successfully running any business (Neneh 2016). Therefore, financial support, as part of the UKZN incubate-enspire programme will ensure that the university will produce graduates who have established businesses, resulting in employment creation. Networking also plays a pivotal role in the success of entrepreneurs as it opens an opportunity to know people who might be in the same industry and who may be of great benefit at some point (Sungur 2015).

**Sub-theme 2.2: Promotes entrepreneurship and inspires an entrepreneurial mindset:** Participants stated that the UKZN incubate-enspire programme promotes entrepreneurship

and has inspired an entrepreneurial mindset in them. These participants mentioned that they gained different entrepreneurial skills such as business plan writing skills, communication skills, business proposal writing skills and many more:

'My experience is that they bring about that entrepreneurial mindset at UKZN and that's what I have acquired as well. I did have an entrepreneurial mind before I got to inqubate-enspire but what they have done is that they have sharpened it.... I could look at a concept or the idea that I have and be able to break it down to an extent where I'll be able to identify if it's a good or a bad concept.' (Michael, male, 19–25 years old)

Research has shown that entrepreneurship education programmes do spark an entrepreneurial interest and an entrepreneurial mindset among students (Karimi et al. 2016). There are different approaches applied by different higher education institutions to achieve this objective, such as business plan writing competitions, seminars on entrepreneurship and different courses on entrepreneurship, which inspire entrepreneurship skills (Sirelkhatim & Gangi 2015).

Participants were also asked for their opinion if this programme was effective or not in the development of student entrepreneurs. A number of participants (33%) asserted that this programme was very effective in the development of the student entrepreneurs:

'I can say that it is very effective.... For a person who didn't know anything about business, when you are enrolled into this programme you get to know many aspects of the business because you may have an idea but in terms of how to execute the business, how to make the idea an active business, you don't have an idea. Once you get to this programme you get that kind of full idea of how you are going to plan and execute the idea to be a formal business...' (James, male, 19–25 years old)

These participants were very confident that this programme was effective in their development and asserted that they gained a great deal of skill and knowledge from the programme. The majority (67%) of the participants mentioned that this programme was effective in the development of the student entrepreneurs; however, these participants mentioned that this programme still needs more improvement moving forward:

'It is effective to a certain degree. They could be better if there were certain things that were made available, in terms of person-to-person contact, be part of your journey in whatever initiative you take or part of any project you do. There should be more face-to-face interaction to help you and guide you even more along whatever project you are taking part in.' (Elias, male, 19–25 years old)

'Although the programme is useful, many people are unaware of it. Regarding this, the university has to do something to market the programme so as to increase awareness among students. There are many students who would like to run their own businesses; they don't know that UKZN provides such a programme.' (Steven, male, 19–25 years old)

**Sub-theme 2.3: Uplifts students and boosts the economy:** Participants stated that the UKZN inqubate-enspire programme plays a pivotal role towards uplifting the students as well as boosting the economy. It inspires the students to be entrepreneurially minded and promotes the production and sale of local brands:

'It plays an integral role in building a youth culture where we promote goods and services that are produced and sold here in South Africa so as to boost our economy. It's a very integral and important programme to uplift students and the social culture in general.' (Mary, female, 19–25 years old)

As mentioned here, based on the responses of the nine participants, it was apparent that these participants had different perceptions and experiences when it comes to the UKZN inqubate-enspire programme. While the researchers found no research on the UKZN inqubate-enspire programme specifically, literature on the similar programmes conducted in other universities also shows that there are mixed feelings when it comes to the perceptions and experiences of student entrepreneurs with regard to these programme offerings. For example, some universities found these programmes to be effective and useful for the development of student entrepreneurs, whereas others found them to be not useful and ineffective in developing student entrepreneurs (Dou et al. 2019; Kirkwood, Dwyer & Gray 2014).

## **Objective 2: To examine the role of the University of KwaZulu-Natal inqubate-enspire programme in assisting the university to become an entrepreneurial university**

### **Theme 3: Contribution to becoming an entrepreneurial university**

Six out of nine of participants stated that the UKZN inqubate-enspire programme is sufficient to move UKZN towards becoming an entrepreneurial university. However, four of these participants concurred with the notion that this programme still needs substantial improvement in order to achieve this:

'Yeah the efforts they are making now are sufficient but with slight improvement it could be a lot better in terms of the results that turned out, but the current programmes are moving in the right direction.' (Elias, male, 19–25 years old)

The participants also asserted that the university has worked with different stakeholders such as the banks, industry experts (entrepreneurs), investors and the student entrepreneurs to make this programme a success. They asserted that the involvement of such stakeholders in the programme made it more effective, and more effective in preparing or advancing the university towards becoming an entrepreneurial university.

Three participants said that the UKZN inqubate-enspire programme is not sufficient to move UKZN towards becoming an entrepreneurial university. These participants stated that this programme still needs a lot of improvement

and also stated that it only offers introductions about entrepreneurship. A lack of proper marketing of the programme was counted amongst the things that make the programme insufficient. The participants asserted that there are few students who are aware of this programme:

'No, they just give you the introduction of things, the small amount of knowledge so you have to try to get more information in order to become better.' (Robert, male, 19–25 years old)

Robert asserted that the knowledge made available to them is basic knowledge about entrepreneurship, which is not sufficient to make the programme effective and insufficient to make the university an entrepreneurial university.

## Discussion

### Objective 1: To investigate the perceptions of University of KwaZulu-Natal students of the role and effectiveness of University of KwaZulu-Natal incubate-enspire programme in developing student entrepreneurs

#### Theme 1: Challenges encountered during participation in the programme

The inability to strike a balance between academic work and being part of the UKZN incubate-enspire programme was one of the predicaments that the student entrepreneurs encountered. As a result, some of the participants stated that they had to drop out of the programme or miss out on certain opportunities that were offered by the programme. This is in line with results of a study conducted by Nielsen and Gartner (2017), which revealed that entrepreneurship education causes or brings confusion to students as they end up getting caught up in confusion about being students or entrepreneurs. Nielsen and Gartner (2017) stated that these confused students end up neglecting one or either of the two responsibilities as a result of the workload, stress and lack of time management. This was supported by research by Fatoki (2014) at a university in South Africa, as student entrepreneurs asserted during interviews that they faced difficulties in maintaining a balance between academic works and running their businesses. However, a study conducted by Osakede, Lawanson and Sobowale (2017) in Nigeria (University of Ibadan) contradicted these findings, as the results showed that students' participation in entrepreneurship did not affect their academic work.

Participants stated that they also encountered the challenge of inconsistency in the programme, for example in the mentorship offerings, and this had a detrimental effect on the performance of their businesses. Mentorship inconsistency meant a lack of people to confide in and a lack of proper guidance from industry experts. This is in line with results of a study by Morris et al. (2017), which revealed that some of the factors contributing to the lack of growth in student businesses is a lack of support structures, such as capital, mentorship and resources. A study conducted by Gimmon (2014:1) revealed that mentorship played a significant role in the development of students' entrepreneurial skills.

Participants also stated that the programme focused on technical and innovative businesses, which meant they received little attention from the programme as they were from the agricultural sector. There is no evidence known to the researchers of such a challenge or barriers from the literature. However, reasons for this could be associated with the global trend of promoting technical and innovative businesses in this era of the Fourth Industrial Revolution.

#### Theme 2: Impact on the development of student entrepreneurs

The participants perceived the programme to be informative and to be a platform where entrepreneurship is promoted. This is in agreement with research conducted at the University of Otago on students' reflections on the value of an entrepreneurship education. This research shows that the students perceived the entrepreneurship course they took to be a platform on which they have acquired entrepreneurial skills, a platform that has inspired confidence in them and a platform that is informative and insightful (Kirkwood et al. 2014). These findings are also supported by a study conducted by Adeeko, Bifarin and Umunna (2016) in Nigeria on perceptions and attitudes of students towards entrepreneurship in Nigeria. This study's findings asserted that the students perceived the entrepreneurial education as important and beneficial. The students asserted that the skills they have gained from the entrepreneurship education programme would be of great benefit post university (Adeeko et al. 2016).

The participants also stated that they received financial support from the programme and had an opportunity to network during the programme. These findings are in unison with a study conducted by Sirelkhatim and Gangi (2015), where they studied the different approaches that different higher education institutions use in entrepreneurship education. These scholars found that financial support and networking were amongst other support structures offered to students in the entrepreneurship education programmes (Sirelkhatim & Gangi 2015).

All the participants stated that this programme was effective in the development of student entrepreneurs. However, some of the participants stated that this programme still needs improvement moving forward to be more effective. This aligns with results obtained by Din et al. (2016) on the effectiveness of entrepreneurship education programmes. They found there is a correlation between the effectiveness of entrepreneurship programmes offered by the university and entrepreneurship readiness of the learners.

Different scholars hold different views or perceptions on the effectiveness of entrepreneurship programmes based at different universities. Dou et al. (2019) argued that the effectiveness of entrepreneurship education depends on environmental factors such as the social environment, the regulatory environment and the curricular options offered, and this results in different experiences for different participants. Nielsen and Gartner (2017) stated that most

businesses started by these students do not end up maturing and becoming successful. They also argued that the university is not a conducive environment to foster entrepreneurship, as students become caught between being entrepreneurs and being students and end up neglecting either of the two (Nielsen & Gartner 2017). It should be observed, however, that it is difficult to compare the UKZN inqubate-enspire programme with other entrepreneurial education programmes from other universities as there may be variances in how they are structured.

## **Objective 2: To examine the role of the University of KwaZulu-Natal inqubate-enspire programme in assisting the university to become an entrepreneurial university**

### **Theme 3: Contribution to becoming an entrepreneurial university**

The majority of the participants (67%) stated that this programme makes a useful contribution towards UKZN becoming an entrepreneurial university but concurred with the fact that the programme still needs improvement. Based on the 'three-stage SEEM' by Jansen et al. (2015:172), it is evident that the UKZN inqubate-enspire programme is playing a significant role in assisting the university to move towards becoming an entrepreneurial university. The UKZN inqubate-enspire programme offered students support structures and resources, and these were counted as factors that contribute towards an entrepreneurial university. This programme offered students financial support, mentorship, networking, pitching opportunities, business plan writing skills and supportive staff members.

## **Limitations of the study**

The following limitations of the study are identified:

In determining the effectiveness of the inqubate-enspire programme offerings at UKZN, the research examines only one perspective; it only looks at the participants' point of view, that is the beneficiaries of the programme and not the university's point of view.

Only respondents from two UKZN campuses (Westville campus and Howard College) were used for this study. Thus, leading to fewer inqubate-enspire participants participating in this study. This contributed to the lack of generalisation of the results. Also, use of the qualitative case study method limits generalisability.

## **Theoretical and practical contributions**

The findings contribute to entrepreneurship education theory by adding to Jansen et al.'s (2015:172) 'three-stage student entrepreneurship model' by building on its dimensions of 'educate, stimulate and incubate'.

The findings contribute to entrepreneurship education practice in the following ways: Firstly, in response to the

challenges encountered in higher education institutions of the lack of policies to support business incubation in universities, the government should initiate more policies to support the initiation of university incubators. The initiation of such policies may also assist the university to obtain more sponsors to make the programme more effective and provide a large pool of funding for student businesses. Secondly, in planning the programmes for the UKZN inqubate-enspire programme, the organisers should take into account the general university calendar. This will ensure that the organisers minimise the programmes offered during the examination period and ensure that the student entrepreneurs get enough time to focus on their studies for the exams. Finally, there should be a more structured approach to the mentorship programme in order to assist aspiring student entrepreneurs. Mentorship is a key component of university mentorship programmes.

## **Directions for future research**

Future research should look at the impact of factors such as gender and race on student entrepreneurship in the South African context or at UKZN specifically, as eight out of nine participants of this study were African males. Study of this nature may give an insight as to whether these factors do have an impact on students' engagement in entrepreneurial activities.

This research only comprised the perceptions of the students in determining the effectiveness of the UKZN inqubate-enspire programme. Future research should collect data from both the student entrepreneurs and the staff members to determine the effectiveness of this programme or similar programmes.

This research only comprised nine participants from both the UKZN Westville and Howard College campuses. Future research should increase the sample size and try to cover all UKZN campuses to avoid the lack of generalisability. To increase the sample size for this research, mixed methods such as interviews and questionnaires could be used.

This research was based only on students who have participated in the programme and did not consider the perceptions of those that have not participated. Future research should compare students who have participated in this programme with those who have not participated to determine the effectiveness of the programme. This will provide rich information about how students in general perceive this programme.

## **Conclusion**

The UKZN inqubate-enspire programme is a new programme that became effective in 2017. This programme was initiated with the purpose of instilling a culture of entrepreneurship among students and assisting them in their entrepreneurial endeavours. Furthermore, the

researchers found no published research specific to this study, which then was a gap that the research sought to fill. This study investigated students' perceptions of the role and effectiveness of the programme in developing student entrepreneurs. In addition, this study also examined the role of the programme in assisting UKZN in becoming an entrepreneurial university.

The findings revealed that the UKZN inqubate-enspire programme triggered an entrepreneurial mindset in the participants and that they acquired a range of skills that would support them in their future accomplishments. Notwithstanding these benefits, participants also experienced a number of challenges, which hindered the attainment of the programme outcomes. These included, the inability to balance the academic work required and running their businesses and inconsistencies in the way mentors were assigned and provided support. The participants further perceived that the UKZN inqubate-enspire programme contributed towards UKZN becoming an entrepreneurial university. However, the programme still requires improvement to fully realise its potential as a trailblazer. The findings highlight the importance of university incubators such as the UKZN inqubate-enspire in developing future entrepreneurs and transforming universities into entrepreneurial institutions of higher learning.

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### Authors' contributions

N.N.C. was responsible for the conceptualisation, methodology, formal analysis, the investigation and writing the original draft. M.K.W. supervised the study and both authors contributed toward the reviewing and editing of the manuscript.

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### Data availability

The data that support the findings of this study are available from the corresponding author, M.K.W., upon reasonable request.

### Disclaimer

The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of any affiliated agency of the authors.

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