Students' perceptions of the influence of extracurricular activities on academic performance: A case study of the Tshwane University of Technology, South Africa

NA Mbada

orcid.org/0000-0001-7917-4502

Dissertation submitted in fulfilment of the requirements for the degree *Masters of Education in Curriculum Studies* at the North-West University

Supervisor: Prof JJJ De Beer

Co-supervisor: Prof. N.T. Petersen

Graduation: May 2022

Student number: 22769773

DECLARATION

I the undersigned, declare that “Students’ perceptions of the influence of extracurricular activities on academic performance: A case study of the Tshwane University of Technology, South Africa” is my own work, that all the resources used or quoted have been indicated and acknowledged by means of complete references, and that I have not previously submitted this thesis for a degree at any other university.

Signature: _____

Date: 02 February 2021

ACKNOWLEDGEMENTS

Most of the important things in the world have been accomplished by people who have kept on trying when there seemed to be no hope at all. -*Dale Carnegie*

A decision to do a second Masters degree after receiving a Ph.D. was not easy to take. I thank the Lord, my God, the Master of wisdom and knowledge, who gave me courage and energy from the onset to this end. I thank you for putting supportive people in my community of practice.

- My supervisor, Professor Josef de Beer. This piece of work I dedicate to Professor Josef de Beer. Prof baptised me in the name of self-directed learning (SDL) and 3rd-generation Cultural Historical Activity Theory (CHAT). And now, I am a true believer that CHAT can be employed as a research lens. “Professor Josef de Beer, without your constant assistance and encouragement, the aims of this study would not have been realised.” His increased motivation made this journey exciting and inspiring. He provided patience throughout the duration of this study. Thank you, Prof. We nailed it!
- My co-supervisor, Professor Neal Peterson. I recognise Professor Neal Peterson for his invaluable insightful guidance into this study. He provided me with encouragement and constructive criticism.
- I must also thank Dr. Erika Fourie, the statistician at the NWU-Potchefstroom campus, for assisting me in analysing and interpreting the quantitative data of this study.
- Dr. Gugulethu Xaba. Thank you for the valuable advice that I should consider doing a second Masters degree and now, I have completed it.
- SAED Staff members. Thanks should also go to the SAED staff members at the Tshwane University of Technology for allowing me to access students in their environment: Dr. Azwitamisi Shadrack Nthangeni, Dr. Gugulethu Xaba, Ms. Tebogo Magabo, and Mr. Tefo Maloka.

- I gratefully acknowledge the assistance of Dr. Itani Peter Mandende, Dr. Shila Mphahlele, Prof. Mashudu Mashige, Ms. Tumelo Masinamela, Ms. Rosina Pheme Raisibe, Ms. Priscilla Manenzhe, Ms. Vukosi Linah Maluleke, Mr. Lunghani Maluleke, Mr. Phumudzo Ramashau, Mr. Mpho Mashau, Ms. Granny Makgabo, Mr. Takalani Emmanuel Nange, Mr. Tshepang Manyisa, Ms. Tshoga Sophy Mantloana, Mr. Mashudu Mudzuka, Dr. Rose-Laka Mathebula and Prof. Zwelibanzi Mpehle.
- Thanks should also go to the Tshwane University of Technology staff at the Faculty of Humanities, especially those I met during evening classes and Saturday classes. Thank you for your support.
- I would also like to extend my gratitude to Dr. Raletsatsi Ezekiel Moraka (SAED Deputy Vice-Chancellor) and Prof. Elsabe Coetzee (SAED acting Deputy Vice-Chancellor).
- I would like to express my most profound appreciation to the research participants, the Tshwane University of Technology students. This dissertation would not have been possible without you.
- Many thanks to the School for Natural Sciences and Technology for Education at NWU-Potchefstroom campus under Prof. Josef de Beer, my supervisor, for paying for the statistical consultation services.
- I am again profoundly indebted to my supervisor, Prof. Josef de Beer, who assisted me with the 2020 registration fees. “Prof. you taught me to ‘give.’”
- Special thanks to my children, Hanihani, Haya, and Hana-Mukundi for their encouragement and support.

The fruits of sleepless nights and listening to the supervisor, Prof Josef de Beer.

God is so good!

ABSTRACT

Extracurricular activities (ECAs) form part of student affairs in higher learning institutions. ECAs are recognised as part of the university curriculum offering learning experiences outside the classroom. As ECAs complement the formal curriculum, universities allocate a budget for running the ECAs and afford students opportunities to participate in the ECAs of their choice. Therefore, participation in ECAs is not mandatory, but voluntary, in that some students participate and some do not. This study aims to investigate how the students' involvement in ECAs influences their academic achievements and specifically, self-directed learning (SDL). The rationale was based on the gap in research literature regarding the potential role of ECAs on students' SDL. The Tshwane University of Technology (TUT) offers various ECAs to its student population. The TUT students were therefore selected so that their views of the effects of ECA participation on their academic achievement and SDL could be explored and explained. The thoughts of students who participated in ECAs at TUT, and students who did not participate, were juxtaposed as two activity systems in the third-generation Cultural-Historical Activity Theory (CHAT) tradition to see if there were differences in their perceptions on their academic achievement and SDL. CHAT is a heuristic that highlights affordances and tensions in terms of the role of ECAs in enhancing academic performance and SDL. For this reason, the CHAT was used. The methodological procedures were illustrated and discussed using a mixed-methods sequential explanatory design. The first phase of the study was conducted using a questionnaire to determine the relationship between ECAs at TUT and academic achievement and understand students' thoughts about the influence of ECAs on SDL. The second phase involved interviews and used thematic analyses to get an in-depth understanding of TUT students' thoughts on the interplay between ECAs and their academic achievement and SDL. The quantitative results showed that the mean scores of the four domains of SDL of the group that participated in ECAs at TUT (the experimental group) were slightly higher than the mean scores of the group that

did not (the control group). The mean score of the experimental group was 4.13 (SD=1.052) on the learning motivation domain of the SDL heuristic while the control group had the mean score of 3.94 (SD=1.040). The mean score of the experimental group was 3.94 (SD=1.01) on the planning and motivation domain of the SDL heuristic while the control group had the mean score of 3.59 (SD=0.94). The mean score of the experimental group was 3.93 (SD=1.05) on the self-monitoring domain while the control group had a mean score of 3.57 (SD=0.99). The mean score of the experimental group was 3.96 (SD=1.07) on the interpersonal communication domain of the SDL heuristic, while the control group had the mean of 3.69 (SD=0.97). This study thus found that students who participated in ECAs indicated higher SDL scores. Although the mean scores of the experimental group were slightly higher than that of the control group, the views of both groups on SDL abilities were all positive. The qualitative results confirmed the results of the quantitative results. This study extends the knowledge of investigating the relationship between SDL using CHAT as a research lens and serves as a useful report on how ECAs might be used as a tool to enhance student learning.

Key terms: Extracurricular activities, Self-directed learning, academic achievement, Tshwane University of Technology students, Mixed-methods sequential explanatory, Cultural Historical Activity Theory.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS AND ACRONYMS

1GAT	First generation activity theory
2GAT	Second generation activity theory
3GAT	Third generation activity theory
4GAT	Fourth-generation activity theory
ACUHO-I SAC	Association of College and University Housing Officers-International South Africa Chapter
C.A.	Correlations Analysis
CCR/T	Co-curricular record/transcript
CFA	Confirmatory factor analysis
CHAT	Cultural Historical Activity Theory
DVC	Deputy Vice-chancellor
ECAs	Extracurricular activities
GPA	Grade points average
KMO	Kaizer-Meyer-Olkin
NASDEV	National Association of Student Development
NWU	North-West University
	Professionals
QUAL	Qualitative
QUANT	Quantitative
REC	Research Ethics Committee
SAASAAP	South African Association of Senior Student Affairs
SAED	Student Affairs and Extracurricular Development
SDL	Self-directed learning
SEAs	Structured extracurricular activities
SEM	Structural equation modelling
SRC	Student Representative Council
SSPS	Statistical package for the social sciences
SWOT	Strength, weaknesses, opportunities and threats
TUT	Tshwane University of Technology

UEAs	Unstructured extracurricular activities
URL	Uniform Resource Locator
ZPD	Zone of proximal development

CHAPTER 1

BACKGROUND AND OVERVIEW OF THE STUDY

1.1 INTRODUCTION

Extracurricular activities (ECAs) have become an essential element of learning institutions and can impact student learning. Researchers such as Kariyana, Maphosa and Mapuranga (2012) maintain that learning institutions worldwide are usually expected to offer core academic curricula together with ECAs. It is clear, therefore, that ECAs are part of the educational environment. In the literature, ECAs are seen as voluntary activities sponsored or sanctioned by schools/ universities that supplement or complement the school's instructional programme but are not part of it (e.g., Cary, 1992:1; Freeman, 2017:1 Saqib, Raheem, Iqbal, Salman & Shahzad, 2018:1). In a similar vein, Holland and Andre (1987; cited in O'Dea 1994:1) propound the view that ECAs are considered pure leisure and not part of schools' or universities' purpose. As such, ECAs are activities that students participate in that do not fall into schools' standard academic curriculum (Massoni, 2011:84 & Gyanunlimited, 2013:1). Asim, Fahad, Wafaa, Maha, Maha and Esmail (2016:1) define ECAs as activities that students undertake apart from those required to earn a qualification. Moreover, students' participation in ECAs is out of personal interest, and students choose to participate in ECAs of choice.

Lewis (2004:1) points out that participation in ECAs increases school belonging and motivates students to achieve academic goals. Similarly, Akos (2006:2) highlights an essential aspect of ECAs: "student involvement in ECAs may enhance their connectedness to the school." Maestas, Vaquera and Zehr (2007:1) also posit that participation in ECAs leads to an improved sense of belonging and improved academic achievement[1]. De Beer, Smith and Jansen (2009), and Hurtado and Ponjuan (2005) argue that campus climate, and students' participation in ECAs, affect student adjustment, persistence, and academic success and that students perceiving an adverse environment on campus may experience difficulties in

[1] "achievement", or "performance" are used interchangeably throughout

adjusting academically, socially and emotionally. This is in line with Sebald's (2014:1) view, which contends that students who participate in ECAs often hold more positive academic self-concepts than those students who do not. When one considers Seow and Pan's (2014:1) views that ECAs have become an integral of students' school life and that many schools have invested significant resources in them, there is a compelling reason to motivate a study of this nature. Research done by Jayanthi, Balakrishnan, Ching, Latiff and Nasirudeen (2013: 752 - 756) on ECAs and academic performance shows that student involvement in ECAs was linked to an improved grade points average (GPA), which takes into account tests, course work, and examination results. De Beer and Henning (2011:3) underline that some learning seeds are embodied within 'playing,' thus constitute the central part of ECAs.

Furthermore, Francisco (n.d.) investigates the effects of ECAs on the academic standing of students. He observes six benefits, namely, a) better grades, b) higher standardised test scores, c) attending school regularly, d) having a positive self-concept, e) increased connectedness to school, and f) decreased absenteeism (p.1). Gwathney (2014:1) clarifies that students' exposure to various ECAs might result in better student academic achievement. It is interesting to note that improved self-directed learning (SDL) is not part of Francisco's list. The literature on ECAs is generally silent on the potential influence of participation in ECAs on SDL. And that is the "gap" that my study will address.

Four considerations are essential when arguing the role of ECAs (Dimaggion, 1982; Bourdiew, 1997 & Coleman, 1998 cited in Ralph & McNeal, 1999:292). Firstly, students' involvement in ECAs becomes the source of human capital and is considered to show students' level of skills, knowledge, and educational achievement. Secondly, students' participation in ECAs enhances social capital, which is the network of relationships established with other people within the parameters of academic learning. Thirdly, participation in ECAs is linked to the acquisition of more intrinsic forms of human capital such as life skills, strong work ethic, self-esteem, perseverance, and locus of control, which are associated with positive academic outcomes (Broh, 2002:1; Freeman, 2017:1). Finally, school as a social context provides opportunities for students to adjust to the environment.

Therefore, the involvement in ECAs has a broader scope of benefit that produces a well-rounded and socially adept student. Authors such as Kusano (2014), Kovalenko and Smirnova (2015) and Forneris et al. (2014) indicate that involvement in ECA's could promote SDL. However, as already stated, no empirical work in this regard has been done in the higher education sector in South Africa.

In contrast, the work of Nikkie (2009) highlights that ECAs sometimes lead to the overuse of alcohol and drugs amongst students. Turning to Coleman (1961, cited in Seow et al., 2014), participation in ECAs negatively impacted students' academic achievement. Similarly, Correa, Dumas, Jones, Mbarika and Ong'oa (2015:169) believe that not all ECAs contribute to better academic achievement. There are thus diverse views on the relationship between participating in ECAs and academic achievement, and this study aims to investigate this conundrum in the literature chapter. However, the literature is scanty on the role of ECAs in possibly enhancing SDL, which is the focus of my inquiry.

A growing body of literature mentions the importance of ECAs in higher learning institutions, such as universities. To quote from the Organisation for Economic Co-Operation and Development (OECD) (2013:116), "Instruction doesn't just occur inside classroom walls; ECAs, such as sports activities and teams, debate clubs, academic clubs, bands, orchestras or choirs, can improve students' cognitive and non-cognitive skills." On this basis, it may be inferred that there is a need for universities to develop and support non-academic activities that help students improve their academic performance and SDL skills. Above all, higher learning institutions' effectiveness lies in the quality and quantity of high throughput rates. And to achieve this balance in education (Holland & Andre, 1987; Shulruf et al., 2008; cited in Seow et al., 2014), enough resources need to be invested by the institution. Minnesota (2007; as mentioned in Ali et al. 2013) rightly points out that higher education performance worldwide depends upon the graduate's academic performance. Numerous authors (*cf.* De Beer, Petersen & Dubar-Krige: 2011) emphasise the need of institutions of higher learning allocating appropriate resources to maximise the involvement of students in ECAs. In this regard, Tshwane University of Technology (TUT) is one such institution. TUT offers various out-of-classroom activities through the Department of Student Affairs and Extracurricular

Development (hereafter, SAED), and this includes choir, debate, drama, peer education, poetry sessions, top-junior leadership programmes and soccer. These ECAs are executed within the framework of student affairs National Bodies such as the South African Association of Senior Student Affairs Professionals (SAASSAP), the National Association of Student Development (NASDEV), the Association of College and University Housing Officers-International South Africa Chapter (ACUHO-I SAC), and Student Health and Wellness. Moraka (2013:1) emphasises that the faculty of student affairs is the custodian of ECAs in higher education.

1.2. PROBLEM STATEMENT

While there are numerous studies on the possible influence of ECAs on school learners' academic achievement, little is known about such effects on university students' academic achievement or the potential role of ECAs on students' SDL. Whereas some authors (e.g., Forneris et al., 2015; Kusano, 2014 and Kovalenko and Smirnova, 2014) show that involvement in ECAs could enhance SDL, no attention has been given to this in the South African higher education sphere. Since the establishment of the TUT in 2004, the rate of students' participation in the ECAs has risen significantly. As indicated by Moraka (2013:1) the institution sometimes fails to absorb the high numbers of students who apply to be involved in ECAs. Moraka (2013:3) further highlights that for the past four years, there has been a trend of students excelling in ECAs but continuing to struggle with their academic performance. Nonetheless, I have also witnessed students in TUT doing well in ECAs and performing well in their studies. How participation in ECAs may influence students' SDL might also provide insight into student success and potential drop-out. The following primary research question guided this study:

> **What are the perceptions of TUT students on the relationship between their involvement in ECAs, their academic performance, and their self-directed learning?**

In an attempt to answer this primary research question, several secondary questions guiding this study emerged:

- What are the factors that motivate students to join certain ECAs, and how do they motivate students to join ECAs?
- What perceptions do TUT students hold about their involvement in ECAs?
- What differences (if any) exist in the views of students from different demographic groups, regarding their participation in ECAs?
- What is the perceived effect of being involved in ECAs on their student academic performance?
- What is the perceived influence of participation in ECAs on students' SDL? (Students in the experimental and control groups will both complete the Cheng questionnaire for SDL).
- What strategies could student affairs practitioners follow and how may they be scaffolded to ensure that ECAs assist students in their development and learning?

1.3. PURPOSE STATEMENT, RESEARCH OBJECTIVES AND AIM

1.3.1 Purpose statement

The purpose of this mixed-methods research case study is to investigate university students' perceptions of the influence of ECAs on their academic performance and perceived self-directed learning.

1.3.2 Aim

This study aims to explore and investigate how students' involvement in ECAs can influence their academic performances and own self-directed learning from their perspective. This is the gap in the literature that this study addresses. It is hoped that the study will be useful to HEIs, who spend large sums of money in providing ECAs for students.

1.3.3 Research objectives

- To identify factors that motivate students to participate in ECAs (there is an increased involvement of students' in ECAs at TUT) and describe how they motivate students to join ECAs.
- To describe how students view their participation in ECAs;
- To compare the students' involvement rate (number of hours) in ECAs per different demography indicators;
- To compare students' participating in ECAs perceptions of their own self-directed learning with students not involved in ECAs; and
- To distil design principles which student affairs practitioners at HEIs can follow in developing and managing ECAs.

1.4. THEORETICAL FRAMEWORK AND RESEARCH LENS

The current research problem was explored and investigated grounded in a theoretical framework with the view of providing a general representation of the relationship between the study variables, i.e., SDL and the ECAs. There is considerable literature on theories that underpin this subject. The premise is that self-directed learners are in a better position to achieve success in their studies. Authors such as Mentz and Van Zyl (2016:102) show that self-directed learners possess characteristics such as inquisitiveness, improved learning methods and motivation to learn. One could, therefore, postulate that more self-directed learners are likely to achieve better academically. This is indeed the case- Tekkol and Demirel (2018:1) show that students who are more successful academically are more likely to use the SDL strategies.

(a) Drawing on Coleman's (1961) research, Seow et al. (2014:362) put forward the ***Zero-sum theory***. According to this theory, participation in ECAs has a negative effect on students' academic achievement because students devote more time to ECAs, than to their academic studies.

(b) This study is also centred on ***Astin's theory of student involvement*** (Astin, 1999:518), which propounds the view that student change and development result from participation in ECAs and that academic performances correlate with student involvement in ECAs and other campus activities. In this regard, Kuh and Pike (2005:185) conclude that participation in ECAs has a positive correlation with students' retention and academic performance. This theory

suggests that students' involvement in ECAs has a positive effect on their academic achievement. Astin (1984; cited in Foubert & Grainger, 2006:168) points out that different students exhibit different levels of involvement in various activities at different times. As such, involving students in ECAs appropriately would benefit their academic performance in such a way that it would appear to be a positive thing to do.

(c) Another extant theory encircling the current study is the ***Threshold theory*** which denotes that academic achievement increases at low and moderate ECA participation levels and then declines at the highest participation levels of involvement (Marsh, 1992:464). In the same vein, others (e.g., Seow et al*.,* 2014) maintain that this theory suggests that students' participation in ECA positively affects their academic performance to a certain point, beyond which participation results in a negative effect.

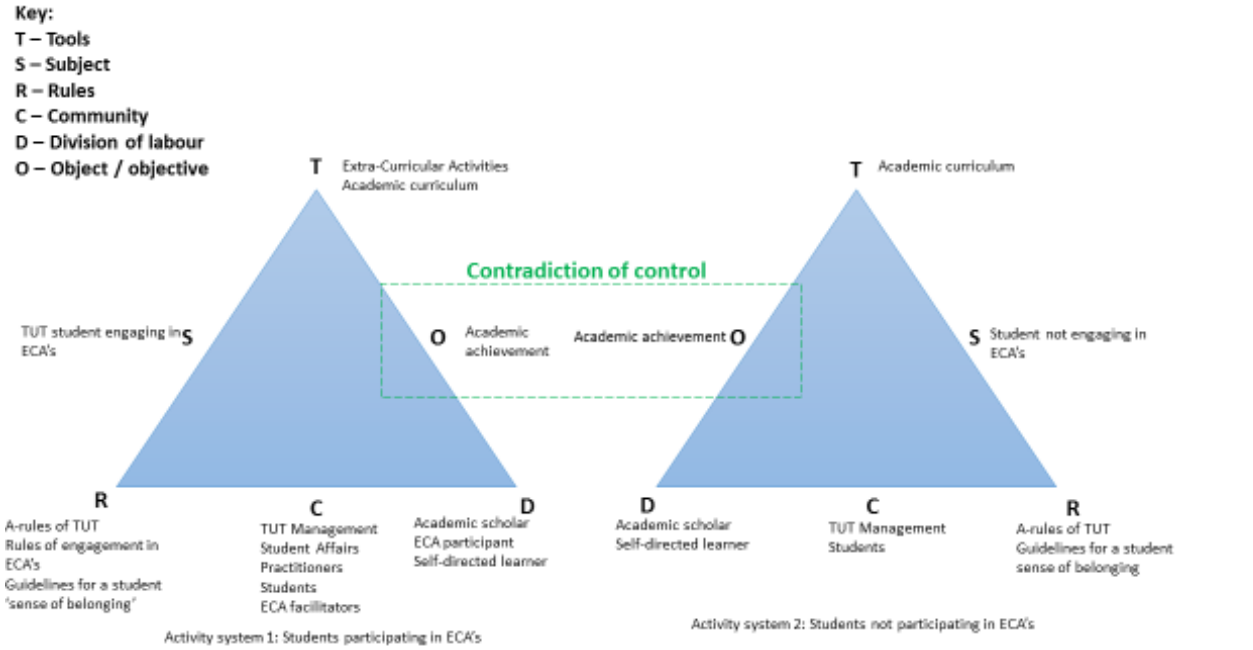
(d) Marsh (1992:468) draws from ***Developmental theory*** advocating that participation in ECAs has little or no effect on students' academic achievement and contributes to desirable outside classroom outcomes such as a **sense of belonging**. This theory indicates no direct correlation between students' participation in ECAs and their academic performance.

This study's important focus was on self-directed learners' characteristics (refer to Mentz & Van Zyl, 2016) quoted above, and how ECAs support these characteristics.

Research lens employed in this study

These theories alone cannot yield enough insight into the complex problem that the current study investigates. Therefore, I used third-generation **Cultural Historical Activity Theory** (CHAT) as an analytical lens (Engeström, 1987) to understand the TUT students' experiences of engaging in ECAs. CHAT considers human psychological functioning as embedded in culture and history (Mentz & De Beer, 2017:101). The research on CHAT has a long history. Recent studies (e.g., Mentz & De Beer, 2017:101) show that CHAT provides a specific look into the activity system to identify a subject, an object, tools and signs, rules, the community and the division of labour within the activity system." This lens, depicted in Figure 1.1, provides insight into the design and implementation of the ECAs (the 'tool') that extend academic abilities and SDL (characteristics of self-directed learners) ('object' of the

activity system) of the TUT students (the 'subjects'). I have engaged with the 'rules' that guide the activity system (e.g., TUT A-rules that guide the promotion of students, rules for student participation in various ECAs), the 'community' (the interaction between various stakeholders such as TUT Management, Student Affairs practitioners, and students), as well as the 'division of labour' (students' involvement in ECA's, their engagement in the academic project, and students as self-directed learners). A detailed explanation of this theory is dealt with in chapters three and five of this study.



Source: de Beer, J. J., & Mentz, E. (2017). A cultural-historical activity theory focus on the holders of indigenous knowledge as self-directed learners: Lessons for education in South African schools. Suid-Afrikaanse Tydskrif vir Natuurwetenskap en Tegnologie, 36(1), 11.

Figure 1. 1 The use of CHAT as a research lens

1.5. RESEARCH METHODOLOGY

Rajasekar, Philominathan and Chinnathambi (2013) and Kothari (2004) describe research methodology as procedures by which researchers describe, explain, and predict phenomena under study.

1.5.1 Research paradigm and design

This study is embedded in a pragmatic paradigm. Feilzer (2010:8) states that "pragmatism sidesteps the contentious issues of truth and reality, and accepts,

philosophically, that there are singular and multiple realities that are open to empirical inquiry and orients itself toward solving practical problems in the real world." In a similar vein, Tashakkori and Teddlie (2003:1) describe pragmatism as a paradigm that focuses on "what works" in order to answer the research questions. In an attempt to explore and investigate the students' perceptions of the effects of the ECAs on their SDL, this study is grounded in a case study research design. The empirical inquiry focuses on research subjects in a particular situation over a period of time. Merriam and Tisdell (2016: 37) describe a case study as "an in-depth description and analysis of a bounded system," in this case, TUT. A case study pertains to the fact that "a limited number of units of analysis such as an individual, a group, or an institution are studied intensively", (Welman and Kruger, 1999:190). In the current study, the focus is on the description of students' perceptions of the effects of ECAs on their SDL, specifically in the TUT context. Unfortunately, as McLeod (2018:1) highlights, a case study compromises the generalisability of the study results since one can never know whether the investigated case is representative of the wider body of "similar" instances (e.g., students' experiences of ECAs at other universities). On the other hand, the literature shows that the case study's valuable findings can give rise to further research. As such, other universities might draw lessons from the findings of this study.

This case-study adopts the mixed-methods sequential explanatory research design (Quan-QUAL) (Creswell, 2009:211) to explain, interpret and contextualise quantitative results through the collection and analysis of the follow-up qualitative data to answer the question(s) under study. Simply put, the strategy is set to provide the general understanding of the research problem by allowing the researcher first to collect and analyse the quantitative data, and secondly to collect and analyse qualitative data from the same respondents but at different times (Creswell, 2014:224). In this respect, the qualitative results help explain and interpret the numerical data obtained in the study's quantitative component (Ivankova, Creswell & Stick, 2006).

1.5.2 Strategy of inquiry

1.5.2.1 The quantitative phase

According to Botma, Greeff, Mulaudzi and Wright (2010:82), a quantitative inquiry is a research approach that frequently generates questions that should be explored qualitatively. DeFranzo (2011:1) and Regoniel (2015:1) state that “quantitative research is used to quantify the problem by way of generating numerical data or data that can be transformed into usable statistics to provide an in-depth understanding of the phenomenon at hand or that relates to human behavior such as feelings, values, and beliefs.” With this in mind, this phase of inquiry identifies the trends, but verification of such trends requires qualitative intervention. That said, this phase serves as a survey to capture numerical data collected through a structured questionnaire, with contingency questions, and helps assess the associations between the variables. Questions were set for students participating in ECAs and some for students not participating in ECAs. In this regard, a descriptive research design was used during the quantitative phase to establish how the variables identified in this study are related.

1.5.2.2 The qualitative phase

Botma, Greeff, Mulaudzi and Wright (2010: 182) propound that qualitative inquiry reveals the story or meaning behind numbers. Crossman (2017) contend that with qualitative inquiry, the researcher collects and studies non-numerical data and then draws conclusions based on the data. In the same breath, Denzin and Lincoln (2011, cited in Creswell and Poth, 2018:5) posit that in qualitative inquiry, researchers analyse things in their natural setting and interpret the meaning of phenomena. In this regard, the second phase of inquiry seeks to extract the meaning of the quantitative results to ferret out why the relationship between variables, if any, exists and/or does not exist.

Furthermore, as Creswell (2013) advocates, it helps to contrast the quantitative (numerical) results with the qualitative (text) results. In this respect, I used open-ended interviews to collect qualitative data. Jamshed (2014) suggests the use of interviews as the most common format of data collection in qualitative inquiry.

1.5.3. Data collection method

1.5.3.1 Quantitative data collection method

In order to explore the relationship between ECAs participation and students' academic performance as well as self-directed learning, the numerical data were collected first using a questionnaire. According to Christensen (2007:55), this method involves sending questionnaires to the research participants and requesting them to return the completed questionnaire, consisting of three sections. Due to COVID-19 pandemic and lockdown regulations, the questionnaire was sent to participants in an online mode using a web-based survey, i.e., through Google Forms. In doing so, the researcher generated the automatic Web uniform resource locator (URL) for the questionnaire and the link was sent and shared via the participants' emails and/or their WhatsApp contacts. This process was feasible since the researcher works for TUT and that students' database with contacts was requested from the SAED and ECAs practitioners. However, students' data will be used only for the purpose of this study. The questionnaire explored TUT students' perceptions of the effects of ECAs on their academic achievement and explored their thoughts on the impact ECAs have on SDL. In this regard, the Saylor Academy (2012a:1) posits that a questionnaire survey is a reliable mode of inquiry because it is "standardised in that the same questions, phrased in exactly the same way, are posed to participants." The questionnaire comprises 'Section A' with demographic questions, 'Section B' focusing on students' perceptions on ECAs, and 'Section C' posing questions on self-directed learning (the items in the questionnaire were developed by Cheng, Kuo, Lin, and Lee-Hsieh, 2010:1157). In this regard, students participating in ECAs at TUT in 2018 to 2020 academic year(s) were requested to complete all sections of the questionnaire. However, students who did not participate, completed section A and C of the questionnaire to determine their views on their own self-directed learning across the domains of learning, namely learning motivation, planning and implementing, self-monitoring and interpersonal communication (*cf.* Shen, Chen, & Hu, 2014).

A five-point rating Likert-scale was used (Christensen, 2007:56) to allow research participants to choose from a limited number of predetermined responses. Bhandari

(2020:1) maintain that Likert scale is a rating scale used to assess opinions, attitudes, or behaviors and allows researchers to operationalise personality traits or perceptions. It took students approximately 10 - 15 minutes to complete the survey tool. With this in mind, I ascertained the accuracy and reliability of the questions by following a pretesting approach. Tools4dev (2014) allows the researcher to pretest or pilot the study questionnaire with a minimum of five people. This process was online using Google Forms. Five students from TUT were selected to pilot the data collecting tool before sending it to the research participants. Also, the questionnaire was perused by the North-West University (NWU)'s Statistical Consultation Services.

1.5.3.2 Qualitative data collection method

Sutton and Austin (2015:226) agree that qualitative research helps researchers access what research participants think and feel about different experiences, enabling the researcher to better understand the meaning attached to experiences for participants. I conducted personal interviews to learn more about their experiences regarding their participation in ECAs and to assess their SDL abilities. In this study, I used semi-structured personal interviews to collect qualitative data. As Martin (2016) recommends, I employed an interview protocol, listing a range of topics to use as prompts. Gill, Stewart, Treasure and Chadwick (2008:291) note that "semi-structured interviews consist of several key questions that help define the areas to be explored and allow the interviewer or interviewee to pursue an idea or response in more detail." In the same vein, Botma et al. (2010) state that semi-structured interviewing is used to gain a detailed picture of participants' beliefs or perceptions about a particular topic. It is noteworthy to realise that such interviews' timing should not negatively impact classes and students' study time. Therefore, I used telephone interviews during their (research participants') convenient time. In this case, I contacted (through telephone) research participants and scheduled interview times and dates that worked best for them. The interviews were recorded using an audio recording device. Interviews lasted 30 to 45 minutes and were conducted at a convenient time for the students, after obtaining ethical clearance from North-West University and TUT.

1.5.4 Population and sampling

A research *population* includes the entire group of people or cases of direct interest to the investigation. Banerjee and Chaudhury (2010:62) describe the population as an entire group about which some information is to be ascertained. Soetewey (2020:1) highlights that the population includes all members from a specific group, possible outcomes, or interest measurements. Surbhi (2016:1) defines it as “a large group consisting of elements having at least one common feature.” In this study, the population are all registered TUT students, i.e., those students, including the postgraduate[2] students, who participated in ECAs at TUT in 2018, 2019 and 2020 academic years, and all registered TUT students who did not participate.

According to Trochim (2006:1) and Klopper (2008:69), “sampling is the process of selecting units from a population of interest so that by studying the sample, researchers may generalise study results back to the population from which they were chosen.” A non-probability sampling design was selected for the study's quantitative and qualitative phase(s), as elaborated in chapter three.

1.5.4.1 Sampling for the quantitative phase

In the current study, units of analysis were partitioned by the type of ECAs TUT students were involved in, thus establishing seven categories. I drew quantitative data from each ECAs category using the convenience sampling technique. Etikan, Musa, and Alkassim (2016:2) indicate that “convenience sampling (also known as haphazard sampling or accidental sampling) is a type of nonprobability or nonrandom selection where members of the target population meet specific practical criteria, such as easy accessibility, geographical proximity, availability at a given time, or the willingness to participate are included for the purpose of the study.” A convenience sample was used to get n=520 students who participated in ECAs at TUT and n=320 students who did not participate. (A detailed description is provided in Chapter Three).

[2] Postgraduate students were be labelled as “others” in this study, and were Masters and Doctoral students.

1.5.4.2 Sampling for the qualitative phase

There have been inconclusive debates about the right sample size in qualitative research (Dworkin, 2012:1319). Furthermore, it is believed that “a sample size in qualitative research should be smaller than that used in the quantitative method” (Dworkin, 2012:1319). Creswell (1998:1) recommends between five and twenty-five as ideal sampling sizes for qualitative research, although it is not a fixed rule. In this study, participants in the second phase of the inquiry, as mentioned earlier, were drawn from the quantitative phase results. In this case, students who participated in ECAs at TUT were selected. Therefore, convenience sampling was used to determine the research participants *(n=27)* for the interview. (A detailed explanation is provided in chapter 3).

1.5.5 Data analysis

The analysis of data was conducted according to the sequential stages of data collection:

1.5.5.1 Quantitative data analysis

The study employed a descriptive statistical technique to analyse the survey results. Boeree (2005:1) states that descriptive statistics summarise a large set of quantitative (numerical) information. As stated above, this study aimed to explore and investigate how students’ involvement in ECAs can support universities’ core function of teaching, learning, research, and outreach to improve students’ SDL. The analysis was done through a *frequency distributions method* to summarise the quantifiable data, show all data values, and determine patterns of occurrence of data value. Manikandan (2011:54) defined frequency distribution as an organised tabulation or graphical representation of the number of individuals in each category on the scale of measurement. Brinkerhoff (2006:75) regards frequency distribution as the most important type of descriptive statistics measures in case studies. Therefore, I used Microsoft Excel for quantitative statistical analysis. Rose, Sprinks and Canhoto (2015:1) concede that Microsoft Excel can be used for descriptive statistical analysis functions. I also liaised with the NWU Statistical Consultation

Services for guidance. Data was interpreted using tables, graphs and charts for each ECAs category and answers on SDL. A cross-*tabulation method* was used to analyse the relationship between the variable groups of respondents in a tabular form. According to DeFranzo (2012:1), cross tabulation is “a quantitative research method which is appropriate for analysing relationships between two or more variables by comparing the results for one or more variables with others' results.” Therefore, it is noteworthy to mention that the numerical data was classified based on the demographic information to compare respondents’ answers to the survey questions. The researcher also used the *factor analysis* and *t-test* to analyse the quantitative data (the detailed description will be presented in chapter three of this study). The SDL data was analysed with the assistance of the NWU Statistical Consultation Services, which has rich experience in analysing data gathered through the Cheng questionnaire.

1.5.5.2 Qualitative data analysis

As recommended by Creswell (2009:186), the audio recorded data was transcribed *verbatim*, i.e., in an emic voice of the research participants in order to bring life to the results that the researcher’s etic voice cannot accomplish. The transcription was analysed manually by reading through the transcripts to get the general sense of the text and locating the text segments and assigning a code to the texts to develop themes (Chahine, 2020:68). (A detailed description of the qualitative data analysis is dealt with in Chapter three of this study).

1.6. RESEARCHER’S ROLE

As a researcher of the mixed-methods sequential explanatory study, my role varied according to the phases of the study. In the quantitative phase of the inquiry, and as recommended by Simon (n.d.) I abstained from influencing the research participants' completion of the questionnaire so that the participants could act independently without bias to ensure the validity, reliability and trustworthiness of the study results. However, it was my responsibility to design the standard questionnaire and to pre-test it. After that, I appointed an independent person to distribute (via online platform) questionnaires to the research participants. In qualitative study Denzin and

Lincoln (2003, cited in Simon, [n.d.]) maintain that the researcher becomes the instrument of data collection to ensure credibility, dependability and transferability of the qualitative outcomes. To obtain the qualitative results, I constructed semi-structured interview questions, conducted interviews, recorded the data, transcribed, analysed and interpreted the data in accordance with Creswell's (2009) recommendations.

Furthermore, to maintain the study's rigour and credibility, I obtained research ethical clearance and further adhered to the TUT and the NWU research ethical standards and guaranteed and maintained confidentiality throughout the research process. The researchers' role in the qualitative phase was also guided (cf. Jack, 2008) to protect the participants' rights to anonymity, confidentiality and reduce any risk associated with participating in the interview. I recorded and presented the research findings in writing.

1.7. QUALITY CRITERIA

1.7.1. Validity and Reliability in quantitative phase

Validity and reliability are important considerations to enhance quality in quantitative research (Bryman, Becker & Sempik, 2008:1).

1.7.1.1 Validity

Validity refers to the meaningfulness of the research from the research methodology perspective. This means that the research process should be handled so that the study produces actual results and that the findings become true reflections of what the study was designed for. In this regard, all possible threats to the study should be avoided when measuring what the study intends to measure. Validity is defined by Botma et al. (2010: 174) "as a technique that indicates whether the conclusion of the study is justified based on the design and interpretation." Therefore, the following quality criteria recommended by Frambach, Van der Vleuten and Durning (2013:552) was used to ensure the validity of the study, namely internal validity and external validity. Basically, to determine *internal validity,* I ensured a large enough sample

size from the research population and the standardised data collection tool was used to collect data from the research participants. Pre-testing of the questionnaire (see, Tools4dev, 2014) was done to prevent internal threats to the study and ensure that questions were designed to explore students' perceptions of the effects of ECAs on their SDL (and possibly academic achievement). To avoid confounding quantitative results, Microsoft Excel and Statistical package for the social sciences (SPSS) were used for statistical data analysis to add credibility to the study results. To ensure *external validity*, the researcher used a convenience sampling technique to sample the research population. Findings would not be generalised to other contexts, except to TUT, since the study was contextualised in TUT exclusively. However, lessons drawn from the study could be applicable in similar settings.

1.7.1.2 Reliability

Reliability in a study denotes that the measuring instrument should yield the same results should the same study be conducted with another group in a similar context. Reliability has been used by Phelan and Wren (2006:1) to refer to "the degree to which an assessment tool produces stable and consistent results." To that end, as a researcher, I did not influence responses at all. I played a neutral role and relied on the participants' scores to arrive at the quantitative findings in this study. That said, data on the questionnaire was accurate, precise, cogent, consistent, and free from vague statements or questions.

1.7.2 Trustworthiness in the qualitative phase

Although there is no consensus on whether validity and reliability are suitable concepts for qualitative inquiry, the general panorama of the literature is that the concepts can be used but with the criterion for quality assurance different from that of quantitative inquiry. Therefore, this study was grounded in certain criteria or techniques to ensure the qualitative phase of inquiry and findings' trustworthiness. Lincoln and Gumba (1985, cited in Golafshani, 2003: 597) propound important quality enhancement criteria in qualitative paradigms.

1.7.2.1 Credibility

To meet this criterion, I drew conclusions from the data analysis of the research participants' correct information. Furthermore, the study report was structured in a coherent way so that the research constructs and ideas flow and make sense. In the literature, credibility tends to refer to the "extent to which the study's findings are trustworthy and believable" (Frambach et al., 2013:553).

1.7.2.2 Neutrality or Conformability

I established this criterion by not allowing my own bias to influence the study outcome. In this regard, my background and position as a SAED practitioner would not be allowed to influence the direction of the study outcome or to obtrude on the study. I explained the rationale for all decisions taken during all stages- from data collection to data analysis and findings.

1.7.2.3 Consistency or Dependability

I analysed the qualitative data more than once to check if the same analysis yielded the same conclusions (code-recode approach), to diagnose and rectify possible mistakes in the study processes (Frambach et al., 2013:553).

1.8. PROPOSED LAYOUT OF THE STUDY

This study is divided into five Chapters.

(i) *Chapter One* introduces the research study topic and states the study's objectives and the rationale for the study. The research methodology and design are briefly discussed.

(ii) *Chapter Two* provides a detailed literature review to conceptualise the influence of ECAs on students' SDL.

(iii) *Chapter Three* provides, a detailed discussion of the research design and methodology

(iv) *Chapter Four* outlines data analysis and interpretation. This chapter presents the research findings by analysing quantitative and qualitative data. Figures and tables are used to enhance the analysis of the data.

(v) *Chapter Five* presents major findings, contributions and limitations of the study, recommendations, and conclusions regarding the study's research problem

CHAPTER 2

AN ANALYTICAL OVERVIEW OF THE INFLUENCE OF EXTRACURRICULAR ACTIVITIES ON ACADEMIC ACHIEVEMENT AND SELF-DIRECTED LEARNING

2.1 INTRODUCTION

In recent years, there has been consensus among social scientists that student learning is interwoven with non-academic experiences in institutions of higher learning such as colleges and universities (Long, 2012:1). Claiborne, Morrell and Bruff (n.d.:1) claims that “teaching and learning become inherently spontaneous and student-centred when moved from the confines of the classroom into the world at large.” Authors such as Klasse (1994, as cited in Craft 2012:23) emphasise that success in the classroom is linked to student involvement in ECAs. A large and growing body of literature suggests that a relationship exists between ECAs and students’ academic success. Thus, the Department of Education’s policies on student learning urge the provision of ECAs so that institutions of learning need to consider them as part of the college curriculum in an attempt to achieve a balanced education. The work of Garrison (2018:1) suggests that a balanced education also means shifting education from teacher-centred to student-centred approaches. Both approaches centre-stage the concept of self-directed learning (SDL), which is part of the conceptual framework of this study, since they equip students with skills to track own learning and set learning goals for themselves (Mosbey, 2016:1). This chapter provides an overview of the literature on the influence of participation in ECAs on students’ academic performance and SDL. In this regard, I will provide a section on the analytical review of the general literature and scientific research on ECAs. Therefore, this chapter is divided into five parts. The first part deals with the historical overview of ECAs. This section will outline the origin of ECAs from a global perspective and national perspective. The second section presents the theoretical framework of the relationship between participation in ECAs and students’ academic performance. In the third section, a description of ECAs at institutions of higher learning is provided. In the fourth section, I provide an analyses and critique of

research findings on students' perceptions of the effects of ECAs on their academic performance, and this will be presented in two ways, i.e., secondary schools' perceptions and universities' perceptions. Finally, the chapter provides some important insights into SDL as part of students' experiences in institutions of higher learning. In so doing, a section outlining the role of ECAs in students' SDL will be presented in the last section of this chapter.

2.2 REVIEW OF LITERATURE AND SCIENTIFIC RESEARCH ON EXTRACURRICULAR ACTIVITIES

On the basis of the evidence currently available, it seems fair to suggest that the relationship between ECAs and the students' academic performance is a topic open to polemics (Correa, Dumas, Jones, Mbarika & Ong'oa, 2015:169). In this regard, researchers such as Kavallos (2015:1) agree that the topic of extra-curricular involvement has been studied in various forms. However, such research has looked at primary and secondary education paying little attention to students in higher education (Kanallos, 2015:1). Nevertheless, there has been inconclusive debates about the relationship between students' participation in ECAs and their academic performance. Simply put, the literature shows no consensus on whether students' involvement in ECAs creates positive or poor academic results. Researchers such as Blomfield and Barber (2010:108), Rawat, Rastogi, Jaiswal, Nigam (2014:475), Jayanthi, Balakrishnan, Ching, Latiff and Nasirudeen (2014:756) and Ahmad, Rahman, Ali, Rahman and Al-Azad (2015:45) on the one hand, support the hypothesis that students who actively participate in ECAs tend to receive higher grades on academic subjects while those who do not participate in ECAs receive relatively lower grades. On the other hand, other researchers such as Rubin, Bommer and Baldwin (2002:451) acknowledge that such participation is a waste of time and harmful to student academic achievement. Despite such dissentients, research also seems to validate the view that the relationship between students' participation in ECAs and academic achievement could depend on the degree of participation. Therefore, it is plausible that students who spend most of their time in ECAs will obtain lower grades compared to those who spent less time in ECAs. In this regard, Annu and Sunita (2014:8) further posit that although ECAs are approved and sponsored by universities, they carry no academic credit towards graduation.

This simply suggests that ECAs are unimportant to the primary purpose of the school, which is, according to Holland and Andre (1987:437), the “pursuit of academic excellence and transmission of formal knowledge.” The current study aims to contribute to the body of knowledge by documenting the relationship between ECAs and students’ academic achievement and SDL in the context of Tshwane University of Technology (TUT). In doing so, certain analytical features in trying to answer the research problem of the study are worth describing.

2.2.1 The Historical Overview of ECAs

Although there has been increased research interest in ECAs, little has been done on historical knowledge, timeline and trends in the development of ECAs. Early research, (Heck, 1933: 222) shows that only a few studies have been done showing trends in the establishment of ECAs. Seemingly, limited research on the historical knowledge and understanding of the development of ECAs is disconcerting as it appears to have led to the slow development of ECAs. For that reason, ECAs were regarded as “a fad that would pass and quickly fade out of style” (Adeyemo, 2010: 112). With that in mind, it can be concluded that the succeeding generations may fail to realise the ideals upon which ECAs were established. Adeyemo (2010: 112) argues that people, including teachers, are often sceptical of participation in ECAs, believing that schools should primarily focus on narrowly specified academic results, particularly test scores. In this regard, Sidhu (2019:1) states that many schools really don’t care for ECAs. Similarly, Sotomayor (1940:1) finds that the responsibilities of colleges regarding ECAs were minimal so that students’ engagements were without supervision even in the early stages of ECAs in the education system.

It is reported in the literature that participation in ECAs was discouraged as ECAs were viewed as being primarily recreational, of little ascribed value to schools and adversarial to academic achievement, which cause dropout (Olato, 2018:1; Marsh & Keitman, 2002, cited in Adeyemo, 2010:112). Massoni’s findings lend support to the claim that ECAs were just “an additional part of the normal academic schedule for the year” (2011:84), and “that they are, in some form, as old as our educational system” (Sotomayor, 1940:1). Many researchers contend that prior to 1900, the purpose of schooling was purely academic and that students were restricted from

participating in ECAs (Brown & Theobald, 1994 cited in Powell & Lee, 2004:284). Students who failed a subject were not allowed to participate in ECAs. Davis (1994, cited in Powell & Lee, 2004:306) states:

> "No pass, no play. Texas made a rule that students could participate in extracurricular activities only when they maintained passing grades. The penalty, which is preventing students who failed one course from participating in extracurricular activities for six weeks, made ineligible students miss entire seasons of athletic competition."

It is, therefore, evident that schools do not see a positive relationship between participation in ECAs and academic performances. Seemingly, there is also a lack or little understanding of the broader realities of ECAs in that researchers show no consensus in defining ECAs. For example, Bartkus, Nemelka, Nemelka and Gardner (2016:693) highlight that there is a lack of a generally- accepted definition of ECAs which results in an ambiguous and unclear definition. Bartkus, Nemelka, Nemelka and Gardner (2016:1) further maintain that lack of a proper and common definition does not allow proper classification of ECAs. Emmer (2010) and Lunenburg (2010) highlight the inconsistency in ECAs definition (as cited in Soe, 2014:13). In addition, Don, Hussin, Raman and Kasim (2016:90) maintain that the concept of ECAs is poorly understood in the history of ECAs, with the result that the definitional issue becomes a concern. For example, Cadwallader, Wagner and Garza (2002:1) and Graft (2012:16) define ECAs as "activities that take place after the regular school day has ended." Attaching this definition to ECAs raises questions on the classification of ECAs. Watkins (2004:7) defines ECAs as "an umbrella term for all educational activities outside the classroom that are sponsored by the high school." Thompson, Clark, Walker and Whyatt (2013:136), in the same vein as Garner (2012:38), states that ECAs "are activities and events that students engage in, which are not part of formal degree classification and that they are not part of the school curriculum." The variation of these definitions lies in their explanation of whether ECAs are part of the curriculum or not. The former implies that ECAs are part of the curriculum and the latter rejects the proposition. Clegg, Stevenson and Willott (2010:617) reach the conclusion that the definition of ECA varies widely so that curriculum and ECA are blurred, overlapping and inconsistently applied. Bartkus (2012: 694) advocates that such inconsistency exists because literature gives no clear definition of an ECA.

Some researchers (*cf.* Holland & Andre, 1987:438; Marini, 2016:266) even go to the extent of confusing "extracurricular activities" with concepts such as "co-curricular activities" as well as "intra-curricular activities." Bartkus, Nemelka, Nemelka and Gardner (2012:694) maintain that "…the lack of a generally-accepted definition serves to impede our understanding of the role the ECAs play in the education and career equation because it does not provide adequate guidance on how they should be classified." Simply put, Adams (2002, cited in Bartkus, et al. 2012:694) maintains that:

> "Definition precedes classification. Classification enables analysis. Analysis allows critical reasoning. Critical reasoning contributes to creative problem solving."

This implies that unclear definitions of ECAs pose serious implications for ECAs research. In this regard, Whitfield (2012:1) propounds the view that a lack of common understanding raises more questions on the essential nature of ECAs. Regardless of the disparities in definitions, previous studies advocate the development of ECAs. For example, Brigga (1938, cited in Sotomayor, 1940:3) clarifies the basic attributes of ECAs in the following respects:

> "First, they offer the school its best opportunity to help pupils do certain desirable things that they are going to do anyway viz., take their place as members of social units, and exercise, each according to his ability, those qualities of leadership, initiative, cooperation, and intelligent obedience, and all fundamental in society.
>
> Second, they offer a ready channel through which the schools may utilise spontaneous interest and activities of the adolescent and through these lead to a higher type of activities and make them both desired and possible of attainment."

Literature is rather silent about the history of ECAs in South Africa. However, there is a rapidly growing body of literature on the history of ECAs in America, which indicates that ECAs first made their appearance in the colleges during the 19th century and have their roots in the 18th century at Harvard and the Yale universities (Garner, 2012:39) where they started as physical education programmes. In the same vein, Heck (1933:222) affirms that the ECAs originated in America. An increasing number of research studies (e.g., Gholson, 1985 cited in Watkins, 2004:1)

finds that ECAs were offered as part of the educational system in America in early 1900 and that they became known as co-curricular activities. In this regard, La Torre and Gwynne (2009, cited in Garner, 2012:39) allude:

> "With the support of Frankling and Jefferson, physical education began to gain acceptance among Americans. With this acceptance came the idea that schools are primarily responsible for the physical and intellectual education of its youth. Still, there were those who held to the belief that extracurricular activities, such as physical education, were a waste of time."

This implies that research communities were divided over the introduction of ECAs in school as some saw education without ECAs as incomplete. Rees (2008:4) states that parents encouraged their children to participate in ECA so that they could be more competitive applicants to attend better universities. Rees (2008:4) further notes that researchers have different opinions of the academic value of ECA participation. However, researchers such as Mendez (1984:60) agree that ECAs contribute to the overall student learning programme. Mendez (p.60) further maintains that it is for that reason that, during the 1970s, the term "co-curricular" was more acceptable than "extra-curricular." Powell and Lee (2004:284) claim that "since the 20th century, there has been debate on the benefits of participating in ECAs." Therefore, it is worth asking if it is necessary to establish ECAs in institutions of learning. Mason (2017:1) gives a certain answer saying,

> "…As well as being enjoyable in their own right, extracurricular interests provide a welcome distraction from the troubles of school life and the general angst that comes with one's teenage years. The stress relief alone allows young people to return to their studies with a clear and focused mind."

Marsh and Kleitman (2002:1) state that it is "educational practitioners and researchers who took a more positive perspective, arguing that ECAs may have positive effects on life skills and may also benefit academic accomplishments." In recent years there have been considerable reports that ECAs are one of the approaches implemented to maintain students' good behaviour instead of more disciplinary administrative methods (Balyer & Gunduz, 2012:4803), and such behaviour is intertwined with academic performances (Wagner & Ruch, 2015:1). This seems to indicate that ECAs are related to student academic performance. In the

same vein, Fujita (n.d.:1) underlines that the effects of ECAs on students' academic performance and education have been apparent for many years. Other researchers even go to the extent of drawing a distinction between forms of ECAs, viz., unstructured and structured (Balyer & Gunduz, 2012:4803).

2.2.1.1 Structured Extracurricular Activities

There is growing support maintaining that the introduction of structured extracurricular activities (SEAs) in schools is one strategy that potentially "builds resilience in adolescents by supporting pro-social behaviour, engagement with school and related activities, constructive academic performance, and growth in subjective well-being" (Compas, 1993; Larson, 2000; Mahoney, 2000., Cited in Meyers & Perez, 2004:31). Fletcher, Nickerson and Wright (2003:641) state that SEAs are "those activities that are organised by adults around specific social or behavioural goals." Along similar lines, Balyer and Gunduz (2012:4803) also state that SEAs are kinds of optional facilities designed and carried out inside or outside school within a plan after classes (*sic*). Blomfield and Barker (2010:114) provide examples of SEAs, namely, "sporting teams, drama clubs, academic clubs, church groups, and service activities." Balyer and Gunduz (2012:4803) also outline examples of SEAs, namely, "excursions, competitions, physical education, scouting, music, folklore, newspaper/ journal preparation, shows, theatre, fashion shows, exhibitions, tennis, basketball, fairs and creative arts." This being the case, Eccles (2003, cited in Wimalasiri & Jayathilake, 2016:31) categorises them into five groups, namely, *pro-social activities* such as church attendance; *performance activities* such as school bands, drama, and dance; *team sports activities* such as soccer and netball; *school involvement activities* such as student government, cheerleading; and *academic club activities* such as debating, foreign language learning, maths or chess clubs, science fairs, or tutoring in academic subjects. Lawhorn (2008:18) posits that "students should choose activities that are based on their interests and then weigh the potential conflicts those activities would have with other demands on their time—including academic study" (*sic*.). Literature asserts that SEAs are highly structured activities made up of three separate parts; skill building, adult leadership and group supervision, all of which are achieved under the guidance of competent adult leaders (see, Wimalasiri & Jayathilake, 2016:31; Wilson, 2009).

Several publications have appeared in recent years documenting that student participation in SEAs has an impact on academic achievement. For example, Covay and Carbonaro (2010:21) assert that SEAs contribute to the development of non-cognitive skills, which are closely related to academic achievement, and enhanced student learning. Balyer and Gunduz (2012:4806), in their study on the effects of structured extracurricular facilities on students' academic and social development, find that students' grades gradually got better after their participating in SEAs. Ivaniusina and Aleksandrov (2015:34) maintain that a SEA is thought of as an ECA consisting of visits to clubs, sections and courses at classes taught by teachers. In this regard, it is clear that SEA is a conduit for the provision of increased opportunities for student learning and development.

2.2.1.2 Unstructured Extracurricular Activities

Unstructured Extracurricular Activities (UEAs) are defined by Ivaniushina and Zepletina (2015:2409) as activities that do not have schedules, leaders, nor well defined groups of participants. According to Ivaniushina and Aleksandrov (2015:34), UECs "include all kinds of activities that a child pursues alone, with friends, with their parents, or on the Internet." Jujita (n.d.) contends that UEAs are informal activities that are less structured and can also be called leisure activities. Bartko and Eccles (2003:234) reiterate that these activities also involve effort, self-discipline, and determination, and that they are considered to be more directly related to skills development, self-concept, and identity. Houtz (2017:1) contends that UEAs require participants to decide on how to play, where and when to play, and what to play with and who to play with. Thus, UEAs are meant for children and youths, and they denote what they do in the unstructured pursuit of relaxed leisure activities. Therefore, UEAs can be regarded as the kind of optional leisure time activities that are enjoyable and unorganised but are carried out inside or outside school. Bartko and Eccles (2003:233) studied adolescent participation in structured and UEAs. As posited by Barto and Eccles (2003:233), the results reveal that little is known about the link between adolescents' choices of leisure time activities for academic, psychological, and behavioural functioning. Bartko and Eccles (2003:33) further state

that participation in UEAs “can provide opportunities to develop specific life skills and a sense of belonging to particular peer groups and recognition from others.”

In order to fully comprehend the notion of “unstructured activities,” the work of Safvenbom, Wheaton and Agans comes under scrutiny to avoid misinterpretation of the concept (2018:2002):

> “…The contexts observed in this study were not unorganised (or organised), but self-organised; not undetermined (or determined), but self-determined; not unstructured (or structured), but self-structured; not unsupervised (or supervised) but collaboratively supervised, and finally; not aimless, but relationally process-oriented…”

It is, therefore, clear that UECs do not denote that the activities are aimless. This simply suggests that UECs are those that are designed without the involvement of the school and teachers. In this regard, as stated by Safvenbom, et al. (2018:2002), students take responsibility to self-generate, self-organise, self-structure and collaborate to generate new knowledge. Jeong (2019:1) lists some examples of UECs: “bicycling, bowling, curling, horseback riding, golfing, hiking/walking, skating, skiing and swimming, painting, drawing, reading, listening to music, or meditating.” Despite this, the literature review shows that the values of participating in UECs are not clear. Kloep and Hendry (2003, cited in Shannon, 2006:402) find that adults generally do not value adolescent behaviour that involves unstructured social activities such as hang-out. “Thus, parents fill their child’s schedule with a series of adult-guided, highly structured activities, such as music lessons, language lessons, sports practice, or math tutoring” (Semenov, 2013:3). Ivaniushina and Aleksandrov (2015:38) believe that, although the effect is much less pronounced, with unstructured sports, students’ academic self-esteem will increase. Conversely, Blog (2018:1) indicates that UECs do not provide any learning outcomes. It can therefore be concluded that participation in UECs can have both good academic enabling and inhibiting effects. Jackson (2017:1) reported:

> “Teachers in many schools have had to convince some parents and guardians to permit their children to participate in extracurricular activities. This is because the parents feel that those afterschool activities distract them from their studies or caused them to get home late. Some

students also feel that they do not need the activities, all they need is to concentrate on their books."

Realising this concern, it is therefore clear that institutions of learning such as colleges and universities should encourage students to participate in ECAs. McClelland and Giles (2014:136) suggest the following to minimize inhibiting good academic performances:

- Offer spaces within the organisation where youth can spend self-directed leisure time and socialise in a safe and welcoming location. This does not have to be structured in nature, but could simply be to offer a supply of board games;
- Offer a sign-out programme for leisure/sports equipment that youth can use on their own time;
- Inform street-involved youth of subsidised programming in the city (e.g., subsidised gym memberships) and provide private or group membership of the facility so that youth can learn of the programmes and services held at the centre and become familiar with the facility while in a comfortable group setting;
- Encourage street-involved youth to join social activist groups that align with their beliefs and values; and
- Offer safe spaces (e.g., safe injection sites) to reduce potential harm for those who are involved with drugs and alcohol.

2.2.1.3 Pattern of Students Participation in Extracurricular Activities

Although all students are encouraged to participate in ECAs, the literature review shows that the level and trend of participation varies across the students' population (*see*, Ivaniushina & Aleksandrov (2015:26-31). Several factors for the variation can be extrapolated (Dumais, 2008:73 – 97; Jiang & Peguero, 2017:314-340; Guest & Schneider, 2003: 89 – 109).

(i) School Context

According to Bascia (2014:1), school context "entails various factors that make up the school as an organisation, and the influence that these factors have on classroom teaching and learning." These factors include, but are not limited to, school location, size, communities they serve, structuring of schooling, teaching and learning, school policies and curriculum (Department of Education, 2019:1; Muller, 2016:1-2). The pattern of students' participation in ECAs is seen to be influenced by the context of the school. For example, in their study, Guest and Schneider (2003:103) find that students participating in sports were considered more responsible especially at schools with a low academic standard, and also at schools in low socio-economic communities. In contrast to this finding, Guest and Schneider (2003:103) also find that "participants in non-sports ECAs were likely to be seen as good students at schools with high academic expectations and at schools in wealthy communities." This variation suggests that school context shapes students' levels of participation in ECAs. Forneris, Camire and Williamson (2015:53) warn that academics without participation in ECAs may not, by itself, lead to any developmental asset acquisition. Therefore, it is necessary that students also go for education beyond the classroom for personality and social competencies development (Ivaniushina & Aleksandrov, 2015:34).

Historically, ECAs were seen to be associated with the size of a school so that students in large schools participate in ECAs in far fewer numbers than students in small schools. Stevens and Peltier (1994:119) conclude that firstly, students in a small school experience and response to an increased opportunity to take part in ECAs because of the relatively fewer number of students at the school. Secondly, the small school setting leads students to participate in ECAs. Thirdly, the small-school environment encourages participation among students and creates a feeling of unified community for the ECAs to succeed. Fourthly, the advantages of ECA participation are long lasting and positive. Lay (2007:799) believes that while larger schools may offer more opportunities for participation for most students, there is a greater number of students who take advantage of the opportunities that are available to them in smaller schools. Therefore, it is clear that a higher number of students in small schools participate in ECAs than students in larger schools.

Interestingly, GreatSchools Staff (2012:1) states that “when it comes to school size, there is no right size that works for every student. Some students thrive in a smaller environment where they get lots of attention, while others prefer the variety of activities and peer groups available in a larger school.”

Previous research, on the one hand, shows that some schools have pressure to increase students’ test scores and to deal with severe budget cuts with the result that they decrease and/or suspend funding for ECAs. (Craft, 2012:6). This suggests that, in this kind of setting, fewer students will participate in ECAs since ECAs also require a budget for implementation. On the other hand, schools want students to get involved in some activities, and that all students should be involved in one or more activities each day (Jones, Bennett & Gray, 2019:1). On the basis of this evidence, it seems fair to suggest that there will be a high number of students’ participation in ECAs in schools where ECA is part of the school system as compared to the schools that have budget constraints and do not consider ECAs as an integral part of the educational process.

For the most part, the structures and processes in schools tend to mirror the socio-economic status of the surrounding community and family (Thrupp & Lupton, 2011:1). There is overwhelming evidence for the notion that ECAs participation is low in rural schools and high in urban areas schools. Previous research (e.g., McCracken & Barcinas, 1991:38) reports that urban schools offer more ECAs than schools in rural areas. Mtika (2019) states that in most instances, ECAs are not free, and as such, only students who can afford to pay can participate. In the study on factors associated with educational disadvantage in rural and urban areas, 73.3% of urban students indicated that they spent their leisure time hanging out with friends outside school hours every day or nearly every day compared to just 43.3% of rural students (Weir, Errity, & McAvinue, 2015:100). In the same study, “35.5% of urban students reported spending at least 2 to 4 hours playing computer games every day compared to just 22.4% of rural students” (Weir, Errity, & McAvinue, 2015:100). Croft and Moore (2019:1) find that 82% of rural students reported somewhat less access to a laptop or desktop computer at home compared to 87% of non-rural students. This variation suggests that students from poor communities are subjected to less

ECAs related opportunities during their spare time than students who stay in urban areas.

Notably, there is strong evidence in the research literature of ECAs that the level of participation of high-income students is high and that participation of low-income is limited. Thus the social background of the student should be considered in ECAs research. For example, one study (Alhadeff, 2019) shows that wealthy students were more likely to participate in sports than students from the lowest socioeconomic bracket. Magliocco and Duffy (2019:1) assert that many rich parents encourage their children to participate in ECAs like sports, arts, or other groups. Pew Research Centre (2015:11) reported that “parents with annual family incomes of $75,000 or higher are far more likely than those with lower incomes to say their children have participated in ECAs.” According to the C.S. Mott Children’s National Poll on Children’s Health (2015:2), “middle and high school students from households earning <$60,000/year participate in school sports at substantially lower rates than their higher-income peers.” Busby (2019:1) affirms that students from the wealthiest families are three times more likely to be ECA participants than students from the poorest backgrounds. Burkhardt (2016:4) maintains that higher income families have more resources and options when it comes to allowing their children to participate in an organized activity. Therefore, it is clear that the socio-economic status of the family determines the distribution patterns of students’ participation in ECAs. However, one study found that the cost involved, amongst other reasons, in participation in ECAs makes students not to participate because it becomes too expensive for them to participate. In his survey, Burkhardt (2016:25) requested students to give reasons for not participating in ECAs. Figure 2.1 illustrates the findings of the survey:

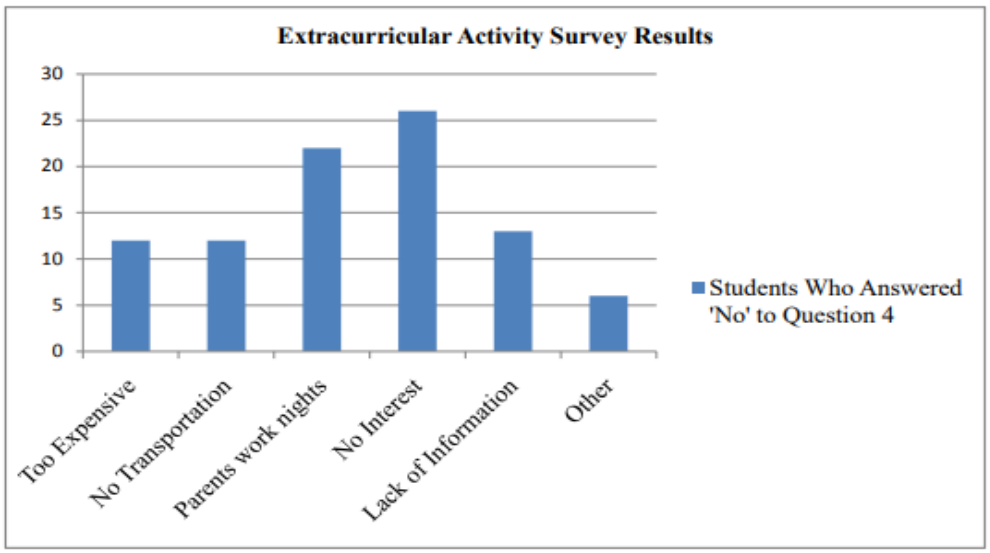


Figure 2. 1 Extracurricular activities survey results

Source: Burkhardt (2016:21).

The empirical data in Figure 2.1 indicates several factors behind the lack of participation in ECAs. Notably, the most leading response, 28%, for not participating in ECAs was attributed to “no interest.” However, only 12% of responses were attributed to “too expensive.” The implications of this variation mean that the majority of students do not participate in ECAs because of a lack of interest. Other participants in the study (12%) indicated that they did not participate in ECAs because of the high cost. These findings show that although the majority of students might not participate in ECAs because of lack of interest, the participation costs also prevent them from participating. Furthermore, these findings might also suggest that students who come from low-income families might not be able to participate in certain ECAs that require some sort of student self-funding. For example, students with poor economic backgrounds might not be able to participate in playing soccer as they cannot afford soccer boots and other relevant training equipment.

(ii) Generational gap

Kayton (2018:1) explains generation as “a group of people born around the same time and raised around the same place so that they exhibit similar characteristics, preferences and values over their lifetimes.” A growing body of research demonstrates that various age categories of students participate differentially in

ECAs (e.g., Stuart, Morgan, Lido & May, 2009:207). Jiang and Pequero (2017:133) find that American immigrant youth have low rates of participation relative to non-immigrants. Stuart, Morgan, Lido and May (2009:207) also find that “mature students spent more time with their families, in prayer/worship and in the library.” In contrast, young peers spend more time in pubs and bars, seeing friends, in shops and cafes. Figure 2.2 indicates how age disparities are associated with extracurricular participation.

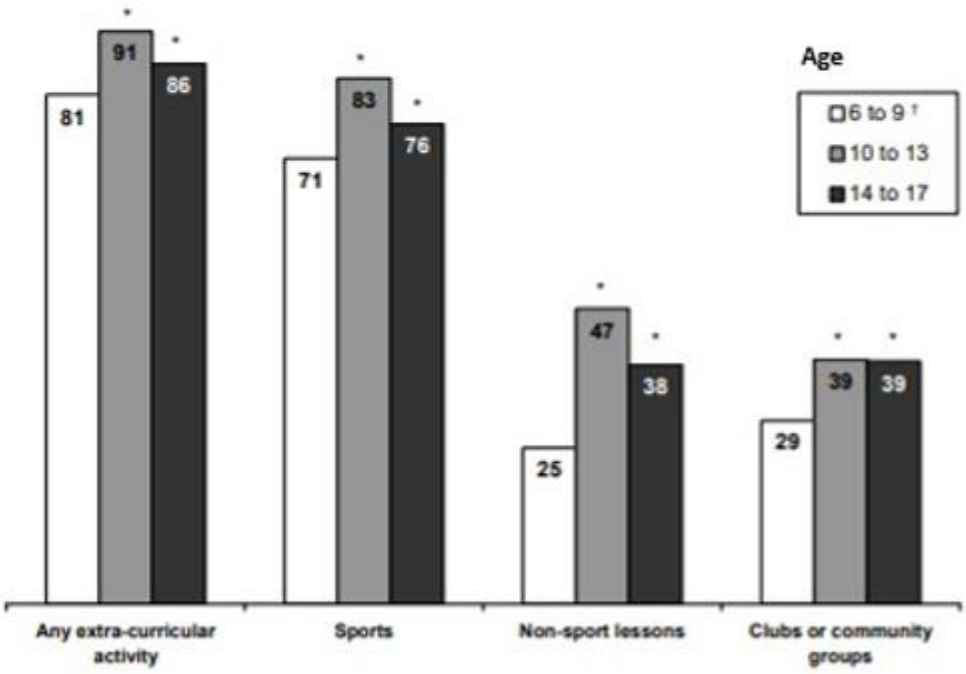


Figure 2. 2 Percentage of students who participated in at least one extracurricular activity, by age group and type of activity, 2000/2001
Source: Guevremont, Kohen and Findlay (n.d.:1).

In terms of participation, three distinct patterns were distinguishable. Firstly, fewer children between the age group of 6 to 9 years participated in ECAs. Secondly, youth aged 10 to 13 years participated in sports more frequently than other age categories. And thirdly, youth aged 10 to 13 and 14 to 17 participated equally in clubs and community groups. This suggests that age is linked to extracurricular participation. However, this belief will still be confirmed or nullified through answers given to the research questions later in chapter four of this study.

(iii) Gender Differences

Much of previous research literature has assessed the link between gender and ECAs participation. A number of studies (e.g., Lehman, 2017; Mello & Worrell, 2008; Dumais, 2008, Chachra, Chen, Kilgore & Sheppard, 2009), for example, have reported that participation in ECAs is related to gender disparities. Eccles, Barber, Stone and Hunt (2003, in Mello & Worrell, 2008:94) contend that the rate of ECAs participation varies between male and female students based on the type of ECAs. For example, Chambers and Schreiber (2004:328) asserted that girls participate in sport less frequently than boys and are also less likely to be involved in vocational activity. Mello and Worrell (2008, 100) found that "more males participated in athletic and organised activities, whereas more females participated in artistic and religious activities. Among 6 to 9 year olds, boys were more likely to participate in sports and girls were more likely to participate in non-sport lessons and clubs or community groups." Guevremont, Kohen and Findlay (n.d., 10) found that "girls age 10 to 17 were more likely to participate in non-sport lessons and clubs or community groups than boys, but are as likely as boys to participate in sports." Chachra, Chen, Kilogore and Sheppard (2009:3) reported that female students showed higher levels of involvement in student engineering activities than male students. In the same vein (Stuart, Morgan, Lido & May, 2009:207) found that "male students appear to be engaging more frequently outside the classroom in university and non-university activities, but did not value voluntary work as highly as did the female students." And again, Ivaniushina and Aleksandrov (2015:27) found that fitness and aerobics are ECAs attended by more girls than boys. Bodybuilding and fitness were found to be ECAs attended by boys (Inaniushina & Aleksandrov, 2015:27). Similarly, Vermaas (2009:13) found that arts, crafts, dance, community and religion attract more girls, while team sports and games attract more boys. Figure 2.3 gives data pertaining to the relationship between gender and participation in ECAs.

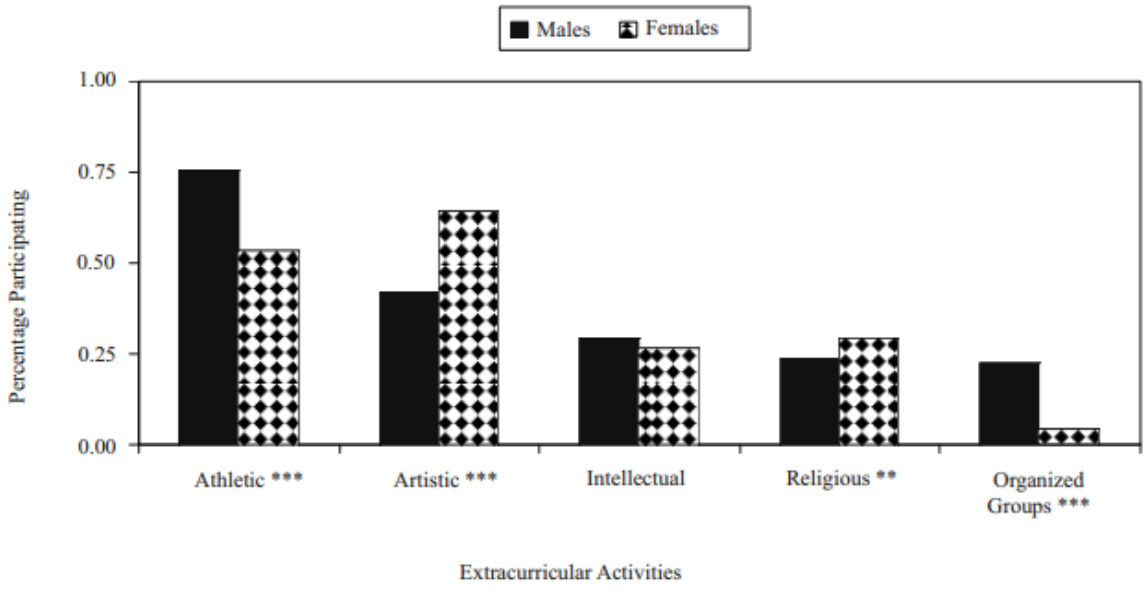


Figure 2. 3 Gender difference in Trinidadian adolescents' participation in extracurricular activities

Source: Mello and Worrel (2008:97).

An important observation from Figure 2.3 is that the level of participation in athletics is higher among males than in females. This figure also indicates that the level of participation in artistic activities is higher for females than their male counterparts. This means that certain ECAs attract certain genders. However, one needs to be critical about the deceptions in a research so that no research participant and/or reader(s) feel discriminated against.

(iv) Type of extracurricular activities

It is believed that various types of ECAs have different “nutrients” that contribute to positive development in various ways (Oberle, Ji, Magee, Guhn, Schonert-Reichl & Gadermann, 2019:1). Thus, students show diverse interests in various types of activities since (Feldman & Matjasko, 2005:194), not all ECAs share the same characteristics. In this regard, Feldman and Matjasko (2005:163) found that sports were the most popular activity. Figure 2.4 illustrates this variation.

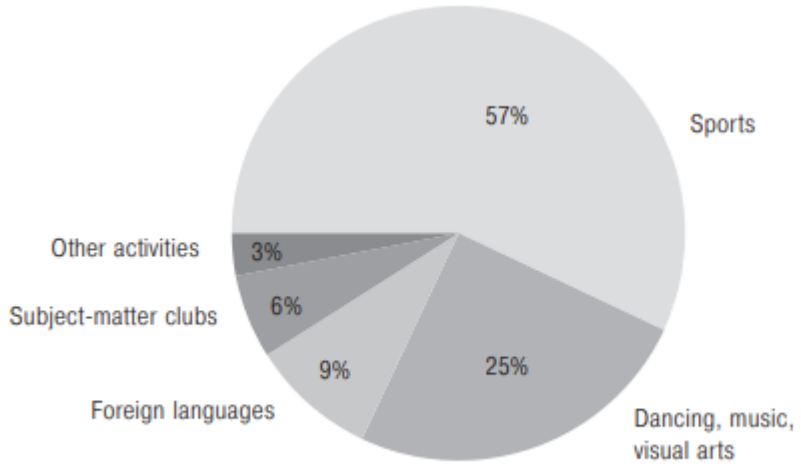


Figure 2. 4 Frequency of participation in different types of extracurricular activities (Ivaniushina & Alexandrov, 2014:179)

As illustrated in figure 2.4, 57%, of students participated in activities associated with sports while 25% of students participated in dancing, music and visual arts. Furthermore, the level of participation in subject-matter clubs and foreign language activities varies slightly, showing a distinct pattern of activity engagement.

(v) Race/ethnicity

Some authors associate ECA participation with ethnicity. For example, Brown and Evans (2002:52) found that ethnic student groups' level of participation in ECAs varied, resulting in different patterns of participation. For example, it was reported that the European American students were much more likely to participate in activities, whereas the Hispanic American students were significantly less likely to participate (Brown & Evans, 2002:52). Interestingly, this disparity was not found for sports participation. Brown and Evans (2002:52) found that sports participation seemed to cut across ethnic boundaries. These differential trends and levels of participation in ECAs are also visible from the work of Stuart, Morgan, Lido and May (2009:207). They found that White students have done a larger number of university-based activities compared to Black students who engage in community and religious activities, but fewer university-based activities. In this regard, fewer of White students' activities were undertaken for religious reasons (Stuart, Morgan, Lido & May, 2009:207). Furthermore, Meier, Hartmann and Larson (2018:13) assert that

race plays a role in the patterns and trends of ECA participation. They found that non-Hispanic Black and non-Hispanic White youth were more likely to participate in ECAs whereas Hispanic youth and youth from other races were less likely to participate (Meier, Hartmann & Larson, 2018:1313).

2.2.2 The values ascribed to extra-curricular activities

Although there is still a debate on whether ECA participation is associated with academic success, volumes of studies suggest that students' participation in ECAs accrue a wide scope of values (e.g., Carbonaro & Maloney, 2019:1). Equally important is Keenan's (n.d.:157) conclusion that the effects which ECA participation produces are not uniform or indeed all positive. Iuca and Platis (2012:4250) use table 2.1 to analyse this variation by putting forward the strength, weaknesses, opportunities and threats (SWOT) regarding ECAs in higher education.

Table 2. 1 SWOT analysis regarding extracurricular activities in universities

S • Diversity in the university activity • Routine is diminished • Teaching can be improved	**W** • Lack of organisation for different event • Lack of student motivation • No financial benefit for companies which participate • Expectations of students and professors are not satisfied
O • New placement opportunities for students • New cooperation alternatives between university and economic environment • Prestige of the university increases	**T** • Prioritising the extracurricular activities while neglecting the teaching and research • Competition may be too high from different providers of such activities

Source: Iucu and Platis (2012:4250).

In light of the table above, it is conceivable that ECA participation has positive and negative values in institutions of higher learning in general. In this regard, Tanner (2017:159) claims that participation in ECAs may have positive and negative values for students. This means that it is not generally agreed that ECA participation results in a positive outcome in the students' learning experience in schools and/or institutions of higher learning.

2.2.2.1 Positive values of ECAs

As stated by Forneris, Camire and Williamson (2014:48), positive contributions of ECA participation include promising environments that encourage students to participate in school programmes and to develop skills that motivate a successful transition to adulthood. Generally, positive contributions of ECAs imply that good opportunities may possibly arise through participating in ECAs. A study by Eccles and Roeser (2009, cited in McCabe, Dupere, Dion, Thouin, Archambault, Dufour, Denault, Leventhal & Robert, 2018:2) mention that "positive growth occurs when there is a connection between the opportunities and demands in student's immediate environment (including ECAs) on the one hand, and their developmental needs and goals on the other hand." Eccles and Roeser (2009:415) point out that ECAs can fill up time and thus reduce the time available for learners or students to get into trouble. Jackoson (2017:1) explicitly states that "when students have no life outside classrooms, when all they do and think is their books, they become zombies whose world revolves around books with no room for their development as human beings" (sic.). This implies that ECAs have a positive impact on student's learning and development. In this regard, Morris (2019:28) maintains that "it may matter less which activities students participate in, but rather that they experience positive benefits from participating in the activity." Shaffer (2019:11), Rees (2018:6 – 18), Tanner (2017:159 - 161) and Massoni (2011: 84-86), for example, provide a list of positive contributions ECAs may have on students.

(i) A balanced life

Delhi (2016:1) states that "chasing school project deadlines, finishing homework and keeping up with studies are the most strenuous forms of exercise that many students

engage in while passionately honing their sports skills." In this regard, students need to demonstrate the ability and skill to maintain a school-life balance. According to Tanner (2017:158), a balanced life denotes "a way of life in which a healthy balance between work, leisure, and other personal pursuits is maintained." Loretto (2019:1) posits that ECAs help college students to face their academic duties and obligations with renewed energy and a renewed sense of purpose so that their 'social life and academics remain balanced.' In this regard, the American College Testing (2006:2) provides tips for maintaining a student's balanced life, namely, resisting temptation, setting internal priorities and scheduling time, working in the library or quiet places, choosing the right living environment, joining clubs, taking care of their bodies, coordinating free time with friends, and understanding that being a student is a full-time job. Therefore, participation in ECAs seems to enhance students' multi-tasking and time management skills, thus, creating an opportunity for students to be self-directed students (David, 2018:1). Other authors such as Kim, Gook, Kim, and Yoon (2016:1) highlight that globally, schools, colleges and universities are structured in such a way that there is a synergy between students' academic programmes and ECAs participation. For example, Kim, Gook, Kim, and Yoon (2016:1) state that in India, "the Department of Education activates school physical education and club activity into 'school sports clubs' intending to establish a healthy school culture of studying while playing and playing while studying." It is, therefore, clear that ECAs have been shown to sometimes contribute towards student development and involvement thus linking to better student academic performance.

Self confidence

According to Rees (2008:13), "a student's self-perception of competence can affect his own self-concept either in a positive or negative manner." On logical grounds, there is no compelling reason to argue that (Rivers, 2018:1) students who participate in ECAs are better able to multitask and are more likely to request assistance on unfamiliar or hard to understand assignments. Similarly, Wilson (2009:4) stresses that competing in a speech contest may help a student feel more comfortable, while being a member of a youth group or scouting organisation may help the student learn from others and connect with the community with ease. Rees (2008:1) maintains that ECA participation motivates students to do well in every aspect of life,

thus increasing academic performance. In this regard, Becton (2020:1) asserts that the more students work on the skills they gain through their ECA participation, the more confident they will feel.

(ii) Sense of belonging

According to Strayhorn (2018:24), students' sense of belonging refers "to students' perceived social support on campus, a feeling or sensation of connectedness, and the experience of mattering or feeling cared about, accepted, respected, valued by, and important to the campus community or others on campuses such as faculty, staff, and peers." This definition seems to imply that many aspects that feed into a sense of belonging are also aspects of ECA's and therefore the potential exists that ECA's could contribute to sense of belonging. Along similar lines, Xin (2003:340) maintains that a sense of belonging to a school enhances commitment to schooling. The question about the ways in which participation in ECAs contribute to a sense of belonging now arises? Hallas (2015:1) points out that students who feel disconnected from the school and their peers or an adult in the building can participate in ECAs to reconnect with the school and learning overall. Hallas (2015:1) further states that being involved with ECAs promotes positive peer relationships, contributing to one's sense of belonging and the overall positive school climate. Therefore, it is beneficial for a student to 'belong to others' and 'to be belonged'. A study by Ruvalcaba, Gallegos, Borges and Gonzalez (2016:6) finds that adolescents who were members of artistic, sports and or scout social groups reported greater emotional intelligence and resilience levels than those who were not members of any such group. Becton (2020:1) posits that when students belong to a club, sport, or activity, they have a safe space from which they can regroup and fit in while they are at school.

(iii) Reduced behavioural problems

College students' everyday life often includes engagements in various risky behaviours (Basic & Erdelez, 2016:1). A study by Ozcebe, Uner, Tezcan, Erbaydar &Teletar (2012:2), for instance, support that risky behaviour is usually the major cause of students' mortality in institutions of higher learning. They also state that

risky behaviour is more common among male students (Ozcebe, Uner, Tezcan, Erbaydar & Teletar, 2012:2). Le (2013:20) posits that risky behaviour can undermine the educational progress and increases the risk of developing social, behavioural, physical, and mental health problems later on. Authors such as De Wet, Muloiwa and Odimegwu (2018,431), Francis and Morojele (2019:1), Gresse and Seaman (2017:2) and John-Langba (2007:26) give examples of risky behaviour, namely risky sexual behaviour such as having multiple concurrent sexual partners, unprotected sex, exchange of sex for money, illicit drug use, binge drinking, sedentary lifestyle, unhealthy eating habits and gender-based violence. Rees (2018:1) affirms that ECAs participation benefits high-risk students immensely because it discourages risky behaviour and (Le, 2013:22) is likely to lead to less engagement in risky and delinquent behaviours. Table 2.2 summarises a number of behaviours which students can learn by participating in ECAs.

Table 2. 2 Extracurricular activities and behaviour learned

Activities	**Concept Integration**	**Learned Behaviour**
Simulation and Games	Using simulation/ Games to reach concepts in different subject areas	Co-operation, respect, obedience, etc.
Sports / Inter-house sports	It involves out-of-class activities	Co-existence, conflict resolution, team spirit, co-operation, etc.
Religious organisation	Teach morality, encourage students to demonstrate good behaviours and obey those in authority	Humility, honesty, respect, obedience, responsible for their actions
Drama	To teach issues and concept in the society.	Appreciation, fair.
Clubs, press club, literary and debate	To teach skills, concepts with demonstration	Consideration, peer interaction, self-confidence, social harmony.
Visiting / Excursion	Expose students to wild	Obedience, compassion,

	varieties of knowledge	perseverance
Leadership assignment	Involve students in group work and assign leaders with responsibilities	Perseverance acquire leadership skills
Girls' Guide, Boys Brigade, Red Cross, Student Union	Teachers should extend in-class activities to After-school hours	Acquire complex skills building, respect and unity
Student-Residence life	Students get involve in After-school hours activities	Peer interaction and respect for other people's culture
Academic Societies (Jet Club)	Extent concept focus	Academic excellence

Source**:** Okoro and Amadioha (2016:19).

It is therefore clear that ECAs participation has the potential to influence students to be less likely to engage in delinquent behaviour. In this regard, the TUT student community could also benefit if they participate in ECAs, and this might contribute to the holistic development of TUT students.

(iv) Higher grades and positive attitude towards school

Although there are diverse views on the relationship between participation in ECAs and student academic performance, it is worth noting that other research maintains that there is a statistically significant difference between participation in ECAs and grade point average. For example, Watkins (2004:44) finds that female students who did not participate in any ECAs had significantly lower grades than female students who took part in ECAs. Craft (2012:44) concludes that students who took part in the choir program had a higher grade point average than students who were not involved. Again, Craft (2004:44) finds that students who were members of the school clubs had significantly higher grades than students who were not club members. In this respect, Okoro and Amadioha (2018:16) affirm that education is not learned by reading text books, but also by participating in ECAs. Wilson (2009:4) asserts that for

participation in ECAs, students have to maintain good grades to meet eligibility requirements. In turn, as stated by Wilson (2009:4), they strive to earn good grades to continue participating in the ECAs. Rivers (2018:1) states:

> "Students who do not miss classes are more likely to have a higher grade point average. This goes hand in hand with extracurricular activities, because the majority of sports, arts and academic clubs require a good GPA for participation. Enforcing this rule motivates students to stay on-task with their classroom and homework assignments. Fellow participants encourage each other to keep good grades. Often, while waiting for practice or meetings to begin, students can work on homework assignments together. In addition, physical activity increases brain function and concentration levels, which lead to higher grades."

Zakhir (2019:128) finds a positive effect of ECAs on students' achievement in English. In this regard, students considered ECAs participation as a useful tool to learn English and improve their communication skills (Zakhir, 2019:128). Furthermore, Becton (2020) finds that students participating in ECAs develop a positive attitude towards schools resulting in becoming successful in their studies. Table 2.3 gives an example of indicators of school success.

Table 2. 3 Percentage of high school seniors participating in extracurricular activities vs. high school seniors not participating in extracurricular activities across selected indicators of school success

Indicators of school success	Participating	Non-participating
GPA of 3.0 or higher	30.6	10.8
Top 25% in math and reading assessment	29.8	14.2
Plan on earning a college degree	68.2	48.2
No unexcused absense*	50.4	36.2
Never skipped a class*	50.7	42.3

Adapted from Becton (2020:1).

An important observation from Table 2.3 is that students participating in ECAs seemed to be more successful in school than those who do not participate in ECAs. For example, students who participated in ECAs attended classes more often than

students who did not participate. Table 2.3 also suggests that participation in ECA is linked to higher academic achievement and a strong desire among students to obtain their degrees.

(vi) School Completion

Research generally shows that ECA participation has a positive effect on student school completion. In this regard, Bush (2003:21) found that students who did not participate in ECAs tended to drop out of school more readily than students who participated in ECAs. A study by Bradley and Conway (2016:708) found that students who participated in a fine art programme, such as dance or drama, had 20% lower chance of dropping out of high school than students who did not partake in such ECAs. For decades, one of the most popular ideas in the positive values of ECAs literature is that dropouts participated in fewer ECAs throughout all grades, including years prior to dropping out or stop-out (Mohoney & Cairns, 1991:245). As stated by Rusin (2018:1), student stop-out refers to temporal withdrawal from enrolment at a college or university, while student dropout is referred to as permanent withdrawal from enrolment. Research by Sosu and Pheunpha (2019:1) finds that "while the beginning of the second year was a critical period of dropout, with almost 20% of students leaving at this time, as many as 10% of students drop out between the second and final year." Saele (2016:29) asserts that students should participate in ECAs from their first year of study in colleges or universities in order to decrease the dropout rate. This means participating in ECAs could positively contribute to academic performance and completion of studies and possibly be a contributory predictor only. In essence, a dropout from a college or university is also associated with academic and/or prior academic failure (Obiakor, 2010:1). In the same vein, Sosu and Pheunpha (2016:1) found that academic vulnerability remains one of the significant predictors of dropping out.

(vii) Productive skills

Many authors such as Osae (2015:1), Ekechukwu, Ateke and Akenedo (2014:275) and Massoni (2011:85) mention that "by participating in ECAs, students learn lessons in leadership, teamwork, organisation, analytical thinking, problem solving,

time management, learning to juggle many tasks at once and allows them to discover their talents." In spite of this, Ekechukwu, Ateke and Ekenedo (2014:275) conclude that ECAs offer youths the opportunity to strengthen their relationship with others. Furthermore, they maintain that students can reinforce leadership qualities such as individual and collective responsibility, team spirit, accountability, prudence in resource allocation, decisiveness, and accommodativeness and communication skills. Acers (n.d.:1) calls these skills 'a real world life skills' which give "one the chance to explore one's passions to discover things one may be interested in beyond academics while taking some time off from hitting the books." Osae (2015:1) is eloquent on productive skills related to ECA participation:

> "When a student decides they want to join an extracurricular activity, they look for one that interests them and one that they like or enjoy. When students are in high school or college, this could be the thing that helps them find a career. By participating in extracurricular activities, they will find something they enjoy and see how they can use that as a career. Participating in certain extracurricular activities having to do with the field that the student is interested in could help them find a job. If someone is looking at a resume for a potential employee, and they see they have experience or interest in what they are looking for, they will be more likely to hire that person. These students will then have higher career aspirations. Certain extracurricular activities also look good on college applications. Colleges look to see if students participate in certain things before they are accepted. Participation in some of these activities could also help a student get a scholarship for college. When students participate in extracurricular activities, especially at a young age, it teaches them about long term commitments. If they want to participate in a certain activity, they sign up for a long time. Not just for a week or a few days. This is good for students to learn because school is a long term commitment, jobs, and other things that they will have to deal with as adults."

(viii) Social connected

The study by Wachsmuth (2013:74) found that participation in ECAs had a significant positive effect on school engagement, social skills and academic performance. Research by Jamal (2012:5) maintains that ECAs provide students opportunities to grow socially through student to student interactions, friendship formation, cooperation with other individuals, developing self-confidence, self-determination, mediation and communication skills, conflict resolution, decision making and leadership qualities. Students that are involved in ECAs meet many new

people and learn how to listen, to have a good conversation and to use natural charm to persuade (StudyGate, 2018:1). This seems to suggest that participation in ECAs help students to be socially connected. Hou (2018:1) holds the view that participating actively in sports, clubs and extracurricular events means more face-to-face interaction and less time on activities such as screen and social media, which has been shown to impede international students' acculturation. This confirms that ECA participation creates opportunities for students to accept other students, establish positive social relations and remain comfortable in their own skin leading to the development of a sense of belonging to the institution in general. In this regard, St-Amand, Girard and Smith (2017:115) affirm that students' sense of belonging is of paramount importance for students' academic, engagement as well as emotional intelligence. Therefore, participation in ECAs can serve as a vein that supports students' positive growth and development. One study (Ruvalcaba, Gallegos, Borges & Gonzalez, 2016:6) concluded that students who belonged to teams that engaged in artistic, sports, and/or scout social group activities showed higher levels of social intelligence than those who did not belong to any team. Another study (Martinez, Coker, McMahon, Cohen & Thapa, 2016:80) found that participation in ECAs is associated with a higher level of school connectedness in participating students than in students that did not participate. Moreover, ECA participation builds supportive relationships that are characterised by warmth, closeness, caring, and respect (Martinez, Coker, McMahon, Cohen & Thapa, 2016:80; Mahoney, Eccles & Larson, 2004:116). In a second study, Coker, Martinez, McMahon, Cohen and Thapa (2017:13) found that students who participated in ECAs reported more social-emotional security, high level of student support, adult support and high level of school connectedness than students who did not participate in ECAs. Tanner (2017:161) asserts that the more a student believe that he or she is accepted and feel more at home at school, the more likely that student will perform well academically. The Conversation (2018:1) describes sense of belonging in school as "the degree to which students feel respected, accepted and supported by teachers and peers." Salmeen, Alkhaldi, Alshaber and Majrashi (2019:57) asserted that by participating in different activities, the students have the chance to interact with other students and form friendships outside of their normal social circle. This means that ECA participation creates opportunities for students to connect with other co-

participating students, which can result in building a friendship while integrated into campus life (Kelley-Hall, 2010:8).

(ix) Self-directed learning

The classic definition of Knowles (1984:18) states that “in its broadest meaning self-directed learning describes a process by which individuals take the initiative, with or without the assistance of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes.” Van Deur (2004: 74) concludes that SDL implies a student’s ability to self-regulate so that the student directs him/herself to learn or reach goals individually and/or with no direct help from others. Vitin (2012, cited in Kovalenko and Smimova, 2015:394) states that SDL refers to “various types of individual and group activity that students have undertaken in the classroom and ECAs at home without the direct participation of the teacher.” Tekkol and Demirel (2018:2) opine that students with high level of SDL skills are aware of their learning needs, so they can arrive at a decision on how they want to learn.

For decades, Brockett and Hiemstra (1975, cited in Tekkol & Demirel, 2018:2) list the characteristics of self-directed learners:

- They set clear goals for themselves;
- They shape their learning process in line with goals and plans;
- They monitor their own learning process;
- They evaluate the outcomes of their own learning;
- They are autonomous;
- The have self-motivation;
- They are open to learning;
- They are curious;
- They are willing to learn;
- They value learning, and
- They take the initiative to learn.

This means that students become responsible owners and managers of their own learning process (Khadabandehlou, Jahandar, Seyedi & Abadi (2012:2). To this end, the question that surfaces is 'how does participation in ECAs equip students with SDL skills? In this instance, Naik (2018:1) and Pearce (2014:1) suggest that students who participate in ECA learn how to commit themselves to learn through setting clear goals for learning and deciding on a learning plan within a particular timeframe. Since SDL is also the focus of this study, a detailed description of the relationship between ECA and SDL will be dealt with in section 2.5 of this chapter.

(x) ECAs and the 'decolonisation of the curriculum' debate/ Indigenous knowledge perspective

Nkopodi and Mosimege (2009:377) posit that since 1994, South Africa has committed itself to advancing and respecting all cultural groups in all spheres of life. In this regard, the education system is not an exception. Meier and Hartell (2009:180) reveal that the South African education system has historically been characterised by desegregation in order to achieve racial equality in the society. This means that South African universities value this cultural diversity by opening space for students to participate in ECAs such as indigenous games, songs and dances. As stated by Kaya and Seleti (2013:33), indigenous games, songs and dances remain a pillar of the African way of knowing. Furthermore, Walker (n.d.:1) posits that songs reinforce the collective identities of people, for example, they can "educate others about the goals of nonviolence and the effectiveness of adhering to nonviolent principles." This means that ECAs can provide students with the opportunity to preserve their own identity through music/songs, even at universities and colleges. According to The Conversation (2020:1), "music is a repository of ecological knowledge, with songs embedding ancestors' knowledge, teachings and wisdom." On the same footing, Amlor (2016:14) is of the view that play and games are sources of leisure and learning for children, and also avenues for acquiring indigenous knowledge that forms part of the socio-cultural values. According to the University of Melbourne (n.d.:1), "dance is a way of improving one's intimate knowledge about individual animal, behaviour and characteristics, so that the hunter can almost think like the animal itself." This was supported by Ndiko (2018:1), who opines that when

playing indigenous games, one can begin to grasp the social and cultural context of the people who invented, continue to invent and play these games. And again, Ndiko (2018:1) notes that some of the indigenous games are team building exercises which can be defined as “physical and character-building activities that originate in various communities of South Africa.” (Stockenstroom, 2018). Equally important, (Mweli, 2018: 104) indigenous games could be a great asset in students’ self-confidence, identity and healthy living.

2.2.2.2 Negative attributes of ECAs

Negative attributes of ECAs are obstacles to achieving the claimed positive attributes of ECA participation (Rainer, Griffiths, Cropley & Jarvis, 2015:245). In spite of the growing evidence emphasising the importance of participating in ECAs (e.g., Zakhir, 2019:133), some authors document the opposite effect of ECA’s. A study by Sebuj, Datta and Rafiq (2018:381) examines the effects of ECAs on the academic performance of university students and finds that ECA participation may lead to lower academic results. Ting (2014:18) indicates that there is no connection between student’s ECA participation and their academic performance. Another study (Barnett, 2007:340) finds that female students who did not participate in ECA had negative attitude towards school as well as poor school attendance and academic performance. Roland (2018:1) posits that ECAs may have some adverse effects, and that students should be cognisant of such potential concern and challenge. Similarly, Saqib, Raheem, Iqbal, Salman and Shahzad (2018:16) found that ECA participation diverts students from his/her duties, i.e., academic programmes. In this regard, the literature review shows a common and formidable array of these hindrances.

(i) The extent of participation in ECAs

As outlined by Campbell (2014:1), taking on too little or too many ECAs could have negative consequences on students so that they become anxious, fatigued, easily irritated and depressed. In the same vein, Hurst (2016:1) notes that over-participation in ECA crowds out academic work and causes critical harm to students’ intellectual and personal development. The Taylor and Francis Group (2018:1) found

that majority of children who took part in organised activities for four to five days per week were negatively impacted so that they spent less time with their families and their energy was often depleted. Wilson (2009:27) noted that ECAs participants also tended to have higher rates of alcohol and illicit drug use. Hou (2018:1) asserts that students tend to prioritise quantity over quality and sign up for too many different ECAs, and as a result, do not have time to really participate, have an influence, and learn from clubs, teams, and organisations. On the one hand, Norman (2018:1), highlights that many ECAs may result in grades falling. A study by Kirsch (2013:5) suggests that participation in ECA may make students too fatigued to complete homework and assignments. On the other hand, Endozo and Oluyinka (2019:3167) found that the majority of university students with low level of participating in physical activities had sedentary lifestyle, which according to Pitcher, Morris, Bryant, Merritt and Feigl (2017:1) could be a separate health risk factor that could negatively impact on students' studies. This purports that too much involvement of students, too little or no involvement in ECAs remain the obstacles to achieving the values claimed.

(ii) Anti-social practices

Chima, and Nneka (2017:7) describe anti-social behaviour as "a behaviour that lacks consideration for others and may cause damage to society, whether intentional or through negligence." Furthermore, Chima and Nneka (2017:7) state that anti-social behaviour encompasses, murder, rape, use of the illegal substance, cliques and alcohol abuse. A study by Kwan, Bobko, Faulkner, Donnelly, Cairney (2014:503) found that sports participation is positively associated with greater alcohol use during adolescence and early childhood. This suggested that sport had the potential to produce both positive and delinquent behaviour. Another study by Ahmadabadi (2018:47) found that female athletes had reported more alcohol and drug abuse than inactive people. And again Rees (2008:24) found that students involved in athletics were just as likely to consume alcoholic drinks or liquor as were students that did not participate in any ECAs. This means that sport activity does not always help to reduce social harm (Ahmadabadi, 2018:54). Kirsch (2013:5) documented that students may be influenced negatively by peers with whom they spend time during ECA. Several studies (e.g., Holt, Knight & Zukiwski, 2012:17) suggested that while

ECA is good for students, interpersonal disputes and arguments between two or more teammates are often inevitable.

(iii) Supervision

Several studies suggested that ECA could be just as demanding for personnel and/or teachers who supervise them (e.g., Gardner, 2016:1). In line with the previous studies, The Conversation (2018:1) noted that ECAs could be risky environments because they were not always properly supervised. In this regard, Forbes (2017:1) asserted that unsupervised ECAs may present opportunities for gender-based violence, bullying, risky sexual behaviour, sex scandal, alcohol abuse, drug abuse, and other risky behaviours, which in turn hurt the prestige of schools, colleges, and universities.

(iv) Economic consideration

Participation in some ECAs is very expensive, resulting in students from lower socio-economic backgrounds finding it difficult to join or to be part of the club or group. In this regard, Mostafavi (2016:1) observed that students, especially disadvantaged students, were often not fully engaged in a well-rounded school experience due to a lack of financial resources. This suggests that participation in ECAs might vary according to income levels, creating student cliques. University of Michigan (2019:1) indicated that participation fees and other expenses such as travel fees remained a barrier to students' participation in ECA. In the same line, Forbes (2017:1) stated that intercollegiate athletics was financially costly resulting in students from poverty stricken backgrounds often being denied access. Burkhardt (2016:24) concluded that families living in poverty could often not afford extra costs for ECAs, and this resulted in a negative effect on their wellness. As stated by Burkhardt, (2016:24), this denies them access to the physical, mental, emotional, and social wellness benefits associated with ECPs. According to Ciobanu (2013:1), this concern could be addressed better in countries where students' services were seen as part of university management than in countries where these ECAs were outsourced to special organisations. Research by King (2005, in Kelley-hall, 2010:49) indicated that "students from lower socioeconomic status categories were disadvantaged in ECA

participation and rewards because their social environment may not provide the types of cultural capital required for success, such as linguistic patterns, behavioural traits, and orientation towards schooling, high expectation, or encouragement of college aspirations." Nevertheless, TUT continues to accommodate all students regardless of their economic background in that ECAs are open to every single student registered in TUT, but this aspect will be detailed in chapter five of this study.

(v) Conflicting schedule

Research (Tanner, 2017:162) indicates that ECAs produce negative effects if students lack energy and time for their studies. Formaro (2018:1) states that students who participate in almost every ECA get tired and do not have time for schoolwork. Hoch (2015:1) asserts that dual participation in ECA spread student's time too thinly and the academics suffer. This might be one of the reasons why Shaffer (2019:12) maintains that ECA has a negative effect on academic achievement. In a like manner, Delhi (2016:1) states that "…often, having students involved in ECAs like sports can pose a catch-22 situation, as the benefits of sports for students come with the demand for their time, thus sacrificing the time meant for academic rituals." This suggests that ECA participation might have a negative impact on students, especially when he/she participates in different activities at the same time.

(vi) Narrow identity

Literature reports that students tend to describe themselves by their ECAs credentials and place little emphasis on the academic roles they play as students. And this perception seems to be detrimental to student academic life. Beron and Piquero (2016:142) find that in situations when the relationship between identity and GPA was consistently negative, the student was most frequently identified as an athlete rather than as a student. Similarly, Bimper, Harrison, & Clark (2012:19) studied, "successful African-American collegiate athletes and found that the athletes were encouraged to identify as athletes more than they were encouraged to emphasise any other "pertinent role." Therefore, it is clear that there is a need for students to always re-establish the purpose of their existence in universities or

colleges and that purpose should not be overridden by any other factors including ECAs.

2.3 THEORETICAL-CONCEPTUAL FRAMEWORK ON RELATIONSHIP BETWEEN STUDENTS' PARTICIPATION IN ECAs AND ACADEMIC PERFORMANCE

2.3.1 Theoretical Framework

As stated by Imenda (2014:189), a theoretical framework supports a theory or offers an explanation that sheds some light on a certain research topic or problem. This study seeks to explore and investigate the effects of ECA participation on student learning and their SDL. In doing so, the study is guided, structured and constructed upon social constructivism as a theoretical framework as conceptualised by Vygotsky (cf. Slavin, 2003 cited in Mentz & De Beer, 2019:260). According to Lynch (2016:1), social constructivism indicates that social worlds develop out of individuals' interaction with their culture and society. Masciotra (n.d:11) points out that in social constructivism, adult learners construct their knowledge in social situations with the context also affecting their personal construction of knowledge. In a similar vein, Rupp (2015:22) posits that social constructivism is about how reality is constructed through human activity and how members of a society join to invent the properties of the world. He further indicates that learning is a social process and occurs when people are engaged in social activities (2015:22). It is clear that students learn through interaction with others, and new knowledge is constructed through these interactions. In this regard, Masciotra (n.d.:10) states that in order to construct new knowledge, a person acts on the object of knowledge (assimilation) and the objects react, which forces the person to adjust his or her action (accommodation). Vygotsky points that every person has an actual development, and if there is no intervention or interaction with more knowledgeable peers, he/she will develop but not as much as if there is an intervention, where scaffolding takes place. Figure 2.5 demonstrates the role of ECAs as a scaffold for students' development.

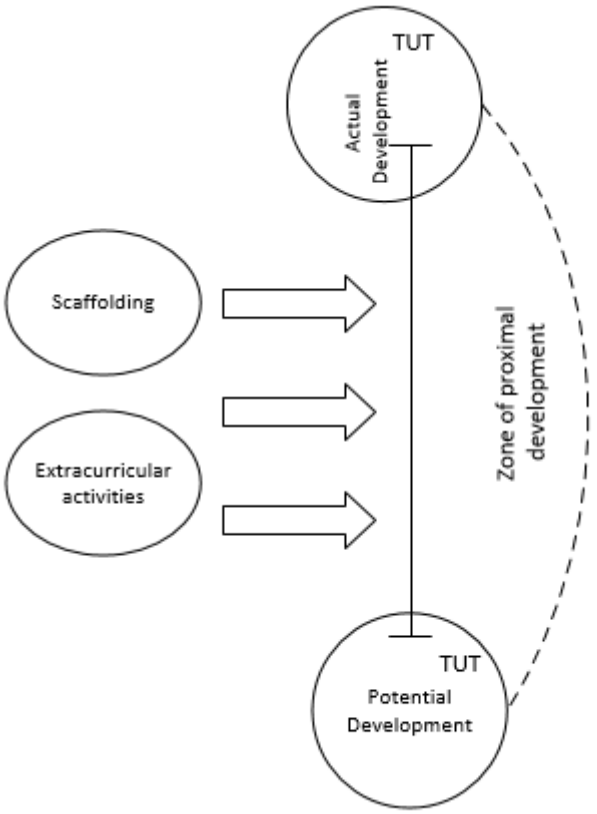


Figure 2. 5 ECA as a tool for student development at TUT
Adapted from Shabani, Khatib and Ebadi (2010: 238).

From the representation in Figure 2.5, it is apparent that Tshwane University of Technology (TUT) has ECAs that play a role in the scaffolding of the students to allow them to reach their potential development level. Rhalmi (2014) refers to scaffolding as a structure which provides assistance to students in the construction of their learning. This Figure reveals that TUT non-academic programmes (ECAs), not just academic programmes, provide scaffolding for students to become more enhanced and better equipped individuals while learning. Data from Figure 2.5 suggests that when students interact with their peers and mentors or coaches through ECA. The zone of proximal development (ZPD) is defined (Vygotsky, 1962:86) as “the distance between the actual development level and the level of potential development.” Shabani, Khatib and Ebadi (2010:238) emphasise by stating that the ZPD refers to the “actual level of development of the learner and the next level attainable through the use of mediating semiotics, environmental tools and capable adult of peer facilitation.” In the context of this study, and as shown in this

Figure, the next level of development is attainable through ECA participation. What is also interesting in Figure 2.5 is that it is apparent that TUT provides instructional scaffolding to help students construct new knowledge through interaction with others during ECAs. For instance, by *participating in the choir* during activities students learn certain knowledge and skills. Amaka and Okonkwo (2013:309) assert that choral teaching is a foundational stride that bolsters the quality of singing and the improvement of singing skills The study by Heyning (2010:68) maintains that through the use of printed words of songs, choristers learn to build sight vocabulary and develop student oral language skills. This seems to suggest that the choir conductor provides scaffolding to lead the students to their potential development. With regard to *students who play soccer*, the soccer coach teaches them valuable life skills. For example, Zulkifli and Kulinna (2018: 2) conclude that by participating in soccer, some learning responsibilities are shifted to students to allow them more ownership in the learning process so that they inquire, speculate, reflect, analyse and find a solution themselves during soccer practices and/or games. Moreover, in the academic classes, where students interact with lecturers, students learn new subject content to achieve their potential development. In this regard, Foldnes (2017:1) emphasises that students' class attendance and their interaction with the lecturers can be viewed as a vein through which new knowledge is attained. Therefore, Vygotsky's theory of social constructivism has been selected to shed some light on the research problem of the current study.

2.3.2 Conceptual Framework

According to Imenda (2014:189), a conceptual framework is defined as "the end result of bringing together a number of related concepts to explain or predict an event or give a broader understanding of the phenomenon of interest or simply of a research problem." As suggested by Imenda (2014:189), a research cannot meaningfully be conducted in reference to a single theory, i.e., theoretical framework. In this regard, Imenda (2014:189) further posits the need for the existing views in the literature concerning the research problem be synthesised in order to explain or predict a research question. In that light, I will use certain constructs as conceptual framework to predict possible answers to the research question. Schematically, it is shown in Figure 2.6.

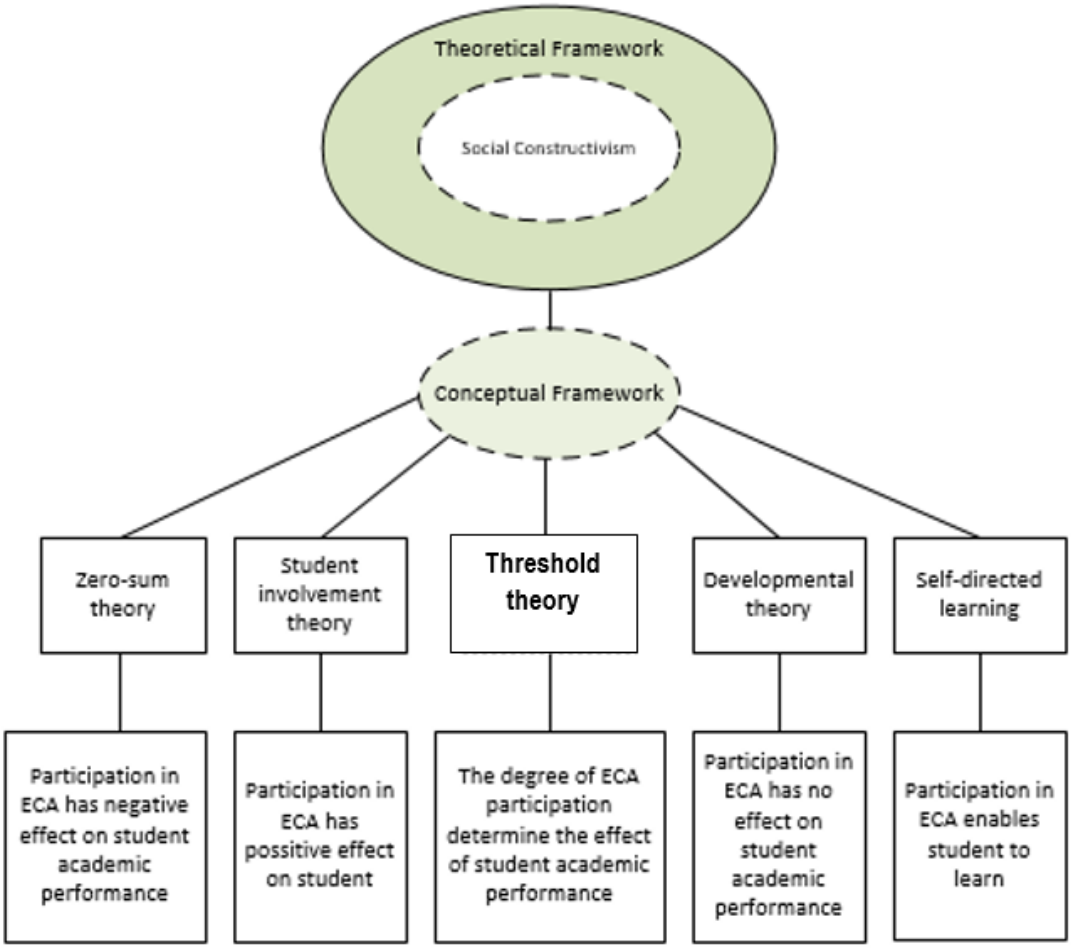


Figure 2. 6 The use of Conceptual Framework to predict the relationship between students learning and ECA participation

Figure 2.6, contains various system concepts that embody this study's conceptual framework, namely a) zero-sum theory, b) student involvement theory, c) threshold theory, d) developmental theory, and e) SDL theory. I have synthesised these concepts, which were drawn from various sources (e.g., De Beer, 2019; Bosch, Mentz & Goede, 2019; Seow & Pan, 2014; Shen, Chen, & Hu, 2014; Johnston, 2013) to make predictions on the link between ECA participation and students' academic performance. It is noticeable from this Figure that each theory has different predictions of the relationship between ECA involvement and academic achievement and/or student-centred learning. Since some concepts have been dealt with in the first chapter of the current study (*see*, section 4 of chapter one), the focus will now be on SDL and a detailed description of SDL will be dealt with in section 2.5. In doing so, I will be able to investigate the relationship between ECA participation and SDL.

Figure 2.6 also shows that it is not a contravention to differentiate a conceptual framework from a theoretical framework. Jansen (2008) states that *conceptual framework* is a lower level of conceptual organisation in which one or more concepts are strung together in order to explain a particular event. Jansen (2008) also states that *theoretical framework* constitutes a higher level of conceptual organisation in which a full-blown "theory" would be invoked to explain a research question. Therefore, as Figure 2.6 shows, it can be observed that the two frameworks vary due to their level of organisation in this study. However, these frameworks assist in investigating TUT students' perceptions of the influence of ECAs on their academic achievement and their SDL.

2.4 OUTLINE OF EXTRACURRICULAR ACTIVITIES AT TSHWANE UNIVERSITY OF TECHNOLOGY

2.4.1 Background

Institutions of higher learning contribute to the education of students in various programmes, namely academic and non-academic. For the purpose of and in the context of this study, the discussion will point to the non-academic program. According to Karp and Stacey (2013:1), “non-academic activities are designed to encourage the academic success of students but do not deal with the academic content.” Table 2.4 outlines mechanisms through which non-academic programme support the academic success of students.

Table 2. 4 Non-academic support mechanisms

Non-academic support mechanisms	
Creating social relationships	**Clarifying aspirations and enhancing commitment**
• Students who have strong relationships with peers and instructors are more likely to feel that they belong in higher education, and they are more likely to have access to information and resources that can help them succeed. • Student support activities should promote sustained and meaningful interactions between students and their professors, advisors, and classmates so that students can develop strong college-based-relationships	• Most students understand that a college degree is important and will make them more employable, but many do not know what career they want to pursue or how college majors and course pathways are related to specific careers. • Support services should help students gain clarity about their academic and career goals and should make clear how the completion of particular course pathways will help them achieve these goals. This increased clarity should in turn strengthen students' commitment to achieving their higher educational goals
Developing college know-how	**Making college life feasible**

• Students- particularly those from families with no college-going experiences-may lack college know-how and become overwhelmed by the cultural, behavioural, and logical demands of collage.	• Many community college students face challenges related to work, single parenting, or poverty that create barriers to academic success.
• Support activities should help students develop college-readiness competencies such as time management skills and should help them understand when, how, and where to access important college services, such as financial aid advising.	• Support services can help students overcome obstacle in their daily lives that, if left unaddressed, could become large enough to stymie progress towards a degree. For example, offering on-site day-care would help minimise the conflict between family and school, particularly for female students.

Source: Karp and Stacey (2013:2).

Table 2.4 indicates that non-academic programmes are scaffolding measures that enhance the students' success in colleges and/or universities to succeed academically. The mechanisms used to support students, as shown in Table 2.4, are provided namely, creating social relationships, clarifying aspirations and enhancing commitment, developing college or university know how and making college or university life feasible. It is therefore clear that the non-academic programmes at institutions of higher learning enable students to perform well academically as socially responsible people. Table 2.4 suggests that non-academic programmes are ECAs in which students participate outside the classroom. Lunenburg (2010:2) states that ECAs provide students with the experiences which are not included in formal courses during classes, thus, integrating knowledge and experience.

2.4.2 Overview of extracurricular activities at Tshwane University of Technology

ECAs are part of non-academic programmes offered by TUT under the auspices of the Deputy Vice-Chancellor (DVC) of Student Affairs and Extra-Curricular Development (SAED). According to Tshwane University of Technology (2020a:1), the main intention of ECAs at TUT is to enhance "student success, learning and the overall quality of campus life in a student-centred environment." In order to achieve this goal, various directorates within SAED have been assigned the responsibilities of taking care of individual ECAs. Table 2.5 highlights ECAs offered by different directorates within SAED at TUT.

Table 2. 5 Types of ECAs at Tshwane University of Technology

Directorate	**Role**	**Type of ECA**
Student Governance and Leadership Development	- Offers planned opportunities for students to integrate their curricular and extracurricular experiences to develop the knowledge, skills and experiences needed to make an impact in the world. - Provide a chance for students to reach their potential by coaching them to recognise and enhance their strengths, develop and implement creative solutions, and engage others in accomplishing positive, substantive results	▪ Student Governance ▪ Roundtable Sessions ▪ SRC Elections ▪ TUT Journal Newsletter ▪ Community Outreach Projects ▪ Educational Excursions ▪ Induction Sessions ▪ Top Junior (First year students' empowerment Programme) ▪ Young women empowerment ▪ Young men empowerment
Health and Wellness	- Offer extracurricular learning and development in the form of the Peer Education Program	• Peer education Programme
Accommodation, Residence Life and Catering	- Offers residence accommodation to students	_

Extracurricular Development	- Enhancement of the students' university experience, contributing to the holistic development and enrichment of campus life. - Provides students with the opportunity to express talents by joining a wide range of interactive and cultural societies.	▪ Drama ▪ Debate ▪ Choir ▪ Choir festivals and Competitions ▪ Art ▪ Poetry ▪ House of tradition ▪ Cultural workshops ▪ Cultural festivals ▪ Book club ▪ Mr and Miss TUT Pageant ▪ Annual talent festivals ▪ Annual talent search and first year's concert ▪ Spiritual facilities ▪ Prayer sessions ▪ Gospel Weeks/concerts
Sport and Recreation	- Contributes to building a strong TUT brand and the University's sportsmen and women, including coaches and administrators	▪ Aerobics ▪ Badminton ▪ Athletics ▪ Basketball ▪ Chess ▪ Cricket ▪ Darts ▪ Tennis ▪ Football ▪ Softball ▪ Supa-Pool ▪ Volleyball ▪ Netball ▪ Pool table ▪ Karate ▪ Bodybuilding ▪ Gymnasium ▪ Table Tennis

		▪ Hockey ▪ Rugby ▪ Squash ▪ Golf ▪ Dance Sport

Source: Tshwane University of Technology (2020:1).

What is notable in Table 2.5 is that there is a variety of ECAs in each directorate, except in the directorate of Accommodation, Residence Life and Catering, which deals only with the accommodation of students. The huge number of ECAs suggests that TUT is one of the institutions of higher learning which perceives the non-academic programme to be one of the pillars of student academic performance and part of education. Since I work at TUT within SAED, I have also noticed that each directorate receives a financial budget annually in order to implement the ECAs. For the purpose of this study, I identified specific ECAs in order to answer the research questions on choir, debate, drama, peer education, soccer, street poetry, and Top-Junior leadership programme (Student's empowerment programme).

2.4.3 Implementation of ECAs at Tshwane University of Technology

ECAs are voluntary programmes that allow "for a well-rounded, balanced and expansion of the curriculum by reinforcing learning, supplementing the required and elective curriculum, integrating knowledge, and carrying out the objectives of democratic life" (Annu & Sunita, 2014:8; Lunenburg, 2010:4). This suggests that students decide which ECAs they want to participate in. Therefore, the directorates annually recruit and appoint student volunteers for their respective ECAs. Although the TUT ECA program falls outside the regular university curriculum, students are obliged to sign and adhere to the code of conduct of each ECA. The ECAs take place during the day, in the evening and also on weekends. Only students registered at TUT are allowed to join the ECAs groups, and are contracted for a year with the possibility of renewal based on performance and availability of space. Students who join ECAs are allocated TUT staff personnel who serve as their supervisors within each directorate. At the end of the programme, usually in October each year, various

directorates organise function(s) to acknowledge the work of all ECA participants where they are given a certificate and medals or trophies as a token of appreciation.

2.5 RELATIONSHIP BETWEEN SELF DIRECTED LEARNING AND EXTRACURRICULAR ACTIVITIES PARTICIPATION

As stated by Kapur (2019:1), educational institutions are implementing programmes and practices in an innovative response to self-directed learning (SDL). I argue that extracurricular activities (ECAs) represents one such programme. For example, Kapur (2019:2) indicates that students develop SDL skills by participating in ECAs such as sports, physical activities, dancing, and singing. Kapur (2019:1) maintains that educational institutions programmes promote SDL and that participation in ECAs creates opportunities for students to develop skills such as self-guided reading, participation in discussions, electronic dialogues and reflective writing (Kapur, 2019:3). In this section, I put forward the presumption that while ECAs participation may result in students missing classes or lectures, such students become more responsible and take much more initiatives for their own learning away from direct contact with their lecturers. In their research on how students dealt with skipping academic programme for games, Zou and Zou (2018:1) posit that students had to put in their own time in order to make up the work. Squires (2011:1) finds that participating in spring sports took students out of school with an average of 15.1 periods that were missed, winter sports pulled students from class an average of 7.3 periods, and participating in the fall sports took students from class an average of 4.3 periods per quarter. However, findings (Squires, 2011:1) show the same students who participated in ECAs performed well academically despite the missed class/lecture time. Delhi (2016:1) maintains that students taking part in both ECAs and academics are better focused, self-disciplined, concertation and manage time effectively. Gil (2014:1) asserts that self-discipline lends itself to academic focus. It is clear that ECA participation equips the student with skills to pay attention and to be a self-directed learner. (Kapur, 2019:1). Bosch, Mentz and Goede (2019:1) put it nicely when they say, “self-directed learning is an approach to education where learners take responsibility for their own learning...” This, therefore, implies that, with the application of SDL theory in this study, one can claim a positive relationship between ECA participation and improved cognitive skills, which results in students' enhanced

academic performance. Johnson, Johnson and Smith (2006, cited in Johnson & Johnson, 2019:38) concede that enhanced academic performance is also due to students' willingness to work, help each other and their ability to work by themselves to achieve their learning.

2.6. CONCLUSION

This chapter shows the effects of ECAs participation on students' academic performance and SDL. In doing so, the theoretical framework and conceptual framework underpinning and guiding this study were discussed. This was also done to illuminate the literature on the association between ECAs participation and students' academic achievements. The ECAs of TUT was also discussed in terms of background and implementation. According to my knowledge and findings this far, this is the first study to investigate the relationship between ECA participation and SDL in the South African context. For that reason, the relationship between these two variables was discussed. Although there may be other studies that involve the relationship between ECAs and academic performance, no study was conducted to broaden the knowledge of such a relationship from a South African university's perspective. And lastly, no study was conducted to juxtapose such a relationship using CHAT as the research lens. Therefore, this study seeks to find answers to these relationships in order to broaden research knowledge. The next chapter describes the procedures and methods used in this investigation.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

The purpose of this chapter is to present the research methodology for this mixed-methods study regarding the nature of the relationship between Tshwane University of Technology (TUT) students' involvement in extracurricular activities (ECAs) and self-directed learning (SDL). This approach allows a deeper understanding of students' perceptions of the influence of ECAs on their academic performance at TUT and provides a way of understanding how students' involvement in ECAs potentially supports SDL. This chapter gives an outline of the primary components of the research methodology, including the research design, population and sampling, data collection and data analysis methods, quality criteria, and finally, the research lens of this study (Cultural Historical Activity Theory) and the ethical concerns are presented.

3.2 RESEARCH QUESTIONS

The central question that guides this study is, what the perceptions of TUT students are with regards to the relationship between their involvement in ECAs and their academic performance on the one hand, and their self-directed learning on the other. In an attempt to explore the central research question of this study, the following secondary research questions emerged:

-
- What are the factors that motivate students to join certain ECAs, and how do they motivate students to join ECAs?
- What perceptions do TUT students hold about their involvement in ECAs?
- What differences (if any) exist in the views of students from different demographic groups, regarding their participation in ECAs?
- What is the perceived effect of being involved in ECAs on their student academic performance?

- What is the perceived influence of participation in ECAs on students' SDL? (Students in the experimental and control groups will both complete the Cheng questionnaire for SDL).
- What strategies could student affairs practitioners follow and how may they be scaffolded to ensure that ECAs assist students in their development and learning?

Answers to some of these questions were provisionally provided in the literature review from a theoretical point of view. Nevertheless, it was necessary to conduct an empirical investigation in order to get answers to the primary and secondary research questions from the research participants in order to satisfy the aim and objectives to this study.

3.3 **RESEARCH PARADIGM**

Kuhn (1970, cited in Perera, 2018:5) describes the research paradigm as the shared beliefs and agreements of scientists about how to address a problem. According to Johannesson and Perjons (2014:167), a research paradigm is "a set of commonly held beliefs and assumptions within a research community about ontological, epistemological, and methodological concerns." As the researcher employed the mixed-methods to get answers to the research questions on the influence of ECAs on students SDL, this study was approached from the pragmatic paradigm. Kivunja and Kuyini (2017:35) assert that the pragmatic paradigm arose among philosophers who argued that it was not possible to access the 'truth' of the real world solely through a single scientific method. Patel (2015:1) posits that pragmatists believe that reality can be interpreted and debated with the goal of arriving at the most effective solution. Kivunja and Kuyini (2017:35) further indicate that the pragmatic paradigm advocates the use of mixed-methods to gain understanding of human behaviour.

3.4 **RESEARCH DESIGN**

Various social scientists and researchers have put a number of definitions of research design forward. According to Sileyew (2019:2), research design "is

intended to provide an appropriate framework for a study." Christensen (2007: 299) defines research design as "an outline, plan, or strategy specifying the procedure to be used in seeking to respond to the research question." Chahine (2020) agrees with Akhtar (2016:68) and defines research design as the glue that binds all the different elements in a research study together. Welman and Kruger (1999:46) describe a research design as a plan according to which research participants are recruited and data collected from them. For Kothari (2004:1), research design is an arrangement of conditions for collecting and analysing data in a manner that aims to combine relevance to research purpose with economy and procedure. For Haliimah (2010:63), research design "is much more than a work plan because the research design's main purpose is to help avoid the situation in which evidence does not address the initial research questions." These definitions stress the importance of collecting the right information in a systemic and well-defined manner, and of adhering to an established research design (Akhtar, 2016:68).

Hence, this study employed a **case study research design** to investigate the effects of ECAs on students' SDL at TUT. Crowe et al. (2011:1) state that a case study is known as naturalistic design and is used to generate an in-depth, multi-faceted understanding of a complex issue in its real-life context. This design enables researchers to explore and examine contemporary real-life phenomena through a detailed analysis of a limited number of events and their relationships (Zainal, 2007:1). Therefore, this design, as indicated by Zainal (2007:1), allows the researcher to go beyond the quantitative statistical results and understand the situational constraints through the participants' perspectives, and also enables the researcher to closely examine the data within a specific setting, in this case, the setting is TUT.

3.5 POPULATION AND SAMPLING TECHNIQUE

The population of a research study has been widely defined by various scholars. However, all definitions point in the same direction (Yaya, 2014:1). Onen (2020:1) refers to the population of a study as "a complete set of elements (persons or objects) that possess some common characteristics defined by the sampling criteria established by the researcher." Klenton and Scott (2020:1) describe it as the overall

group of people, objects, events, hospital visits, and measurements. Majid (2018:3) also sees it as the target population that the study is intended to investigate or treat. The view of Elfil and Negida (2017:1) state that this makes it simple to comprehend the role of population in a study.

> "The whole population is sometimes called "target population" while the sample population is called "study population." When doing a research study, we should consider the sample to be representative to the target population, as much as possible, with the least possible error and without substitution or incompleteness."

With reference to this study, which seeks to explore and investigate how students' involvement in ECAs might influence academic performance and their SDL, the target population constituted of registered TUT students. Roach (2001:1611) asserts that participants in the target population should share at least one single attribute for them to be regarded as eligible members of the population. The population in this study were all registered TUT students (including postgraduate students) studying towards a tertiary qualification. However, one section of this population participated in ECAs at TUT in 2018, 2019, and 2020 academic year(s) while the other group did not participate. In order to access the research population, the TUT REC, (Research Ethics Committee), (see APPENDIX D) as well as the NWU REC (see APPENDIX E) granted permission for these students to take part. However, since it was impossible for the researcher to include the entire population in the study, certain sampling techniques were employed in this study.

Sampling, according to Onen (2020:4), is the process of selecting elements (people or objects) procedurally for participation in a study to represent the target or accessible population. Majid (2018:3) refers to sampling as the process of selecting a statistically representative sample of an individual from the population of interest. Phrasisombath (2009:4) sees sampling as the section of study units from a defined study population. Dyer (2006: 50) also defines sampling as "the process that allows a sub-group (the sample) to be drawn from the much larger population group (known as the population or universe) with the intention of obtaining an accurate representation of the characteristics of interest in the population within the sample."

According to Hassan-Sa'id and Madugu (2015:51), sampling is done for the following reasons:

- Among the elements that make up the population of the study, there are similarities, and therefore, a study of a few of these elements will give the researcher sufficient knowledge of what obtains in the entire population of the study.
- Sometimes it is practically impossible to take a complete and comprehensive study of the population because of the nature and pattern of distribution or dispersion of the elements of the population. Consequently, sampling becomes imperative because it is the only way to estimate the population characteristics in such circumstances.
- It is obviously cheaper to study a sample than the entire population.
- Sampling enables researchers to be more thorough and affords him/her better supervision than with complete coverage of the entire population.
- Sampling enables quicker results than does a complete coverage of the population.

In this study, and guided by the above definitions, the researcher perceived sampling as a process by which a smaller number of research participants were sampled from a larger population. Ishak and Bakar (2014:29) agree with Banerjee and Chaudhury (2010:60), who maintain that research studies are usually carried out on a sample of subjects rather than the whole population for the sake of time, cost-effectiveness, and the accuracy of the study findings. Therefore, a sample of registered TUT students was studied to generate the quality results of this research study. With this in mind, the researcher utilised the **non-probability sampling technique** for both the quantitative and the qualitative phase(s) of inquiry. This is because of the researcher's inability to predict which individuals would be selected (Gravetter and Forzano, 2003:118). Bhat (2020:1) defines non-probability sampling as a sampling technique that relies on the judgement of the researcher rather than a random sampling method. Explorable.com (2020:1) views non-probability sampling as a type of sampling where samples are gathered without everyone in the population being able to be selected. Howard (2019:1) refers non-probability sampling to cases in which the list of participants was not randomly selected and the researcher cannot

know how big the sampling error is (missed persons, unequal representation, etc.). Devault (2019:1) puts it nicely when he states, “you don’t know which person from the population will be chosen for the sample.” Similarly, Albert, Tullis and Tedesco (2010:43) maintain that in non-probability sampling, not every member of the population has an equal chance of being invited to participate. Marshall (1996:523) highlights that in non-probability sampling, the researcher chooses the most productive sample to answer the research question and that if the research participants are known to the researcher, they may be stratified according to their perceptions in order to examine them in detail.

In this study, a **convenience sampling method** was used for quantitative and qualitative data collection. Bhat (2020:2) refers to convenience sampling as a non-probability sampling method which is used where samples are selected due to being conveniently available and not chosen at random. Elfil and Negida (2017:1) contend that with convenience sampling, the researcher enrols subjects according to their availability and accessibility. Etikan, Musa and Alkassim (2016:2) view convenience sampling as a type of non-probability sampling where members of the target population that meet the criteria for being convenient are included in the study. Furthermore, it is important to note that convenience sampling does not provide results that can be generalised to the entire population (Etikan, Musa, and Alkassim, 2016:1). As McMillan and Schumacher (2001:177) maintain, the size of a sample embodies sufficient numbers of study units of analysis to provide credible results. (Students may of course be involved in other ECAs not offered by TUT, and for this reason, students were asked if they participated in such ECAs, and if so were excluded from the sample). As I work in TUT under the SAED, the research participants were no strangers, therefore getting the most productive sample to answer the research questions and/or achieve research objectives was feasible.

3.5.1. Sampling for the quantitative phase

The convenience sampling was adopted with the aim of securing a sample (n= 580) of participants engaging in ECAs. Students from different ECAs were invited to fill in the questionnaire, but as soon as about *n=100* from choir members, *n=80* from debate students, *n=80* from drama, *n=60* from soccer, n=50 from street poetry, *n=90*

from peer education, and *n=120* from the leadership program responded, the data gathering process was stopped. This group was then considered the experimental group. There was also a control group (students that did not participate). In this case, population (n=80) students from each academic year group were requested to complete the SDL instrument and some demographic variables. Thus the control group, constituted (n=400) students, but not less than n=200 to keep a reasonable balance between groups.

3.5.2. Sampling for the qualitative phase

For the purposes of this mixed-methods sequential explanatory study, participants for this second phase of the study were drawn from the sample frame of registered students at TUT who participated in the quantitative phase of the inquiry. In this regard, Morgan (2018:1) outlines that in the explanatory sequential mixed-method study, only those participants who will assist the researcher to a deeper understanding of the quantitative results were eligible to participate in the qualitative phase of inquiry. In the same vein, Nguyen-Trung (2018:1) posits that the population in the qualitative stage of study is drawn based on the sampling of the quantitative sample frame to conduct qualitative exploration, so that the researcher is provided with extra information that helps clear up the ambiguity arising from the quantitative analysis of the study. However, this second phase of inquiry was also carried out with students who were available and accessible. The convenience sampling method was used to draw the qualitative data from a sample *n*=21 research participants participating in ECAs comprising *n*=3 students from each of the seven ECAs. This was done to follow up on the quantitative data analysis outcomes of this study. Furthermore, a qualitative phase of inquiry on SDL was conducted with students not participating in ECAs at TUT, and such inquiry was based on the quantitative results to garner an in-depth understanding of their SDL abilities outside the parameters of ECAs. A convenience sampling method was used to get a sample (n=6) for the semi-structured telephonic interviews with research participants not participating in ECAs. This was to get an in-depth understanding of their thoughts and feelings about their SDL abilities as well. These figures translate to the population on n=b27 for the qualitative phase of inquiry.

3.6 RESEARCH METHODS

Jory and Stanford (2016:3) state that research methods help the researcher to collect, reflect on and interpret the data to reach new insights. Niville (2007:5) adds that research methods include the different tools that researchers use to collect and analyse data. Therefore, in this study, the researcher used a **mixed-methods approach** to collect and analyse data. Timans, Wouters and Heilbron (2019:193) see the mixed-methods as a research approach which lends itself to combining two research methods. In trying to satisfy the objectives of this study, the researcher conducted this study within a specific type of the mixed-methods design, that is, the **mixed-methods sequential explanatory** design.

Creswell (2014:224) refers to the mixed-methods sequential explanatory as a design that provides the general understanding of the research problem by allowing the researcher first to collect and analyse the quantitative data, and secondly to collect and analyse qualitative data from the same respondents but at different times. In this respect, the qualitative results helped to explain and interpret the numerical data obtained in the quantitative component of the study (Ivankova, Creswell & Stick, 2006). With this mixed-methods sequential explanatory design (*see* Creswell and Plano, 2011:1), the researcher collected and analysed the quantitative data and then collected and analysed the qualitative data that built on and followed up the quantitative results as shown in Figure 3.1.

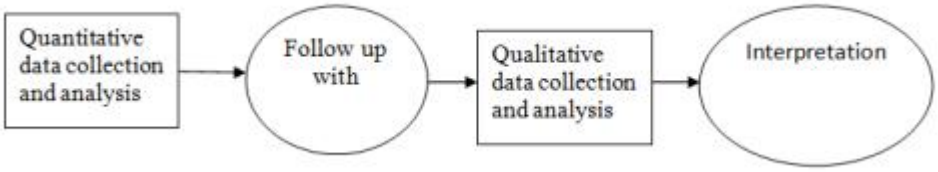


Figure 3. 1 Sequential explanatory design

Source: Subedi (2016:573)

Figure 3.1 outlines the procedure for gathering data when conducting the mixed-methods sequential explanatory study. In this study, the researcher (Creswell, 2009:211) explained, interpreted and contextualised the quantitative data results by

collecting and analysing follow-up qualitative data to answer the question(s) of this study.

3.6.1 Data collection methods

Rahim (2019:1) views data collection as the process in which information is gathered for analysis and decision making. Belyh (2017:1) and Kabir (2016:202) define data collection as “the process of gathering data and measuring data information on variables of interest in an established systematic fashion that enables one to answer stated research questions.” Martin (2000:341) states that certain data collection methods are more appropriate for specific situations than other methods. Caliman (2015:3) postulates that data could be collected qualitatively, quantitatively or a mix of both. That being said, Caliman (2015:3) agrees with Block (1981, in Martin, 2000,341) and suggests some ways to collect data, namely, interviews, surveys, paper and pencil questionnaires, focus group interviews, document analysis, direct observation, testing and personal experiences. In this study, **quantitative data collection methods** and **qualitative data collection methods** were used to satisfy the purpose and sequence of the phases of inquiry. Simply put, the quantitative data collection preceded the qualitative data collection phase.

3.6.1.1 Quantitative data collection method

The researcher adopted the quantitative method to collect data during the first phase of this study. As stated by Jovancic (2019a:1), this method of data collection deals with things that can be measured and quantifiable. De Vos, Strydom, Fouche and Deport (2005:166) identify various methods of data collection appropriate for quantitative approach, namely, questionnaires, checklists, scales and indexes. The questionnaire was the most appropriate data collection tool for the first stage of this study.

(a) Questionnaire

A questionnaire is “a research instrument consisting of a set of standardised questions to gather statistically useful information on some subject from one or more

respondents" (Pahwa, 2019:1). In a similar vein, McLeod (2018:1) refers to a questionnaire as a survey instrument containing various questions used to gather information from research participants. Moreover, Pahwa (2019:1) suggests some of the advantages of using a questionnaire as an instrument for data collection, viz., i) inexpensive way of collecting data, ii) generates a large amount of data, iii) has an easy-to-understand and easy-to-respond design, iv) the responses can be easily quantified and can also be used to compare and contrast with other research, and v) the results of a questionnaire are easy to analyse.

In this study, the researcher used a standardised questionnaire with Likert scale questions as the instrument (cf. Ndukwu, 2019a:1) for the collection of quantitative data from the sample of the population (see, table 4.1 for the sample) drawn from TUT students who participated in ECAs and students who did not participate. Ndukwu (2019b:1) describe a Likert scale as a psychometric rating scale used in questionnaires to gauge the degree to which research participants express their degree of agreement or disagreement with a statement. Christensen (2007:56) contends that a Likert scale is used to allow research participants to choose from a limited number of predetermined responses in the questionnaire. In this study, five-point Likert type questions allowed the participants to express their answers on their level of agreement or disagreement with the statement(s) on the influence of ECAs on their academic performance and their SDL.

The questionnaire had closed-ended questions allowing the research participants to choose an answer from the given options (see, Bhatia, 2018a:1). The questionnaire (see APPENDIX A) comprises of three sections, namely:

- 'Section A' with demographic questions,
- 'Section B' focusing on students' perceptions of influence of ECAs on academic performance, and
- 'Section C' posing questions on SDL. In this regard the SDL instrument (SDLI), a questionnaire developed by Cheng, Kuo, Lin, and Lee-Hsieh (2010:1157), which gage the students' perceptions of their own SDL abilities.

Students participating in ECAs in the 2018 - 2020 academic year were requested to complete all sections of the questionnaire. However, students not participating in

ECAs were required to complete sections A and C of the questionnaire to determine their views on their own SDL across the domains of learning, namely learning motivation, planning and implementing, self-monitoring and interpersonal communication (*cf.* Shen, Chen, and Hu, 2014). However, due to the Covid-19 pandemic, data were collected online. A web-based survey questionnaire was developed and data were collected using Google Forms. As stated by Raju and Harinarayana (2016:6), Google Forms is commonly used online survey software which is used to develop and design online questionnaire. Kumar and Naik (2019:119) assert that Google Forms allow a large number of people to provide the researcher with information and collect it all in a single place. The researcher generated the automatic Web uniform resource locator (URL) for the questionnaire and the link was sent and shared via the participants' emails and/or their WhatsApp contacts. This process was feasible since the researcher works for TUT and that students' database of contacts was available. TUT granted permission to access students' data, but only for the purpose of this study. All participants had to indicate their consent before attempting section A of the web-questionnaire. Through the consent form (see APPENDIX C), participants were also informed that they could withdraw from participation at any time if they so wished. A multiple-choice consent question was designed on Google Forms to give participants the option to give consent or not. This process also allowed research participants to return their responses to the researcher online.

In this study, the researcher piloted the questionnaire before the actual quantitative data collection phase started. Bowden, Fox-Rushby, Nyandieka and Wanjau (2002:323) see piloting of the questionnaire as "the main chance for the researcher to gauge the meaning attributed to the survey questions 'before it is too late', i.e., before a substantial investment is made in the wrong questions or in questions where the researcher cannot be sure about what is being asked." According to the Perneger, Courvoisier, Hudelson and Gayet-Ageron (2014:1), piloting a questionnaire is the process of testing and verifying a questionnaire on a small sample of target audience or respondents to assist the researcher in identifying both potential problems as well as possible solutions. In this study, the researcher piloted the questionnaire before administering it to the actual sample of the research participants. According to Trobia (2011:6), the piloting of a data collecting instrument

is the necessity to verify that it is well understood and does not yield obvious bias effects. Boynton (2004:1372) posits that “whether you have constructed your own questionnaire or are using an existing instrument, always pilot it on participants who are representative of your definite sample.” According to Tsang, Royce and Terkawi (2017:20) a questionnaire should be pilot tested on a small sample of the intended respondents. Furthermore, Tsang, Royse and Terkawi (2017:12) state that although there is no set guideline for number of questions a questionnaire should have, it should not be too long for respondents to complete. In this regard, the questionnaire was designed to take 10 -15 minutes to complete. This would result in a higher quality of responses from the actual participants and enable the questions to effectively capture the topic under investigation (Collingridge (2014:1). The piloting of the questionnaire, together with the perusal of the questionnaire by the NWU’s Statistical Consultation Services, also gave rise to the validation of the questionnaire (see APPENDIX K). Verial (n.d.) refers to questionnaire validation as a process in which the researcher reviews the questionnaire to determine whether the questionnaire measures what it was designed to measure. Similarly, De Yebenes Prous, Salvanes and Ortells (2009:173) assert that validation gives a research instrument its capacity to measure that for which it was designed.

In validating the questionnaire, the researcher was guided by certain questionnaire validation protocols, to ensure acceptable face and content validity (see, Strydom, Mentz & Kuh, 2010:7 and Collingridge, 2014). In short, first, the study supervisor and the co-supervisor read through the questionnaire to check the clarity of wording, readability, layout and whether the questions do not threaten or violate the privacy of respondents (Strydom, Mentz & Kuh, 2010:7) as they understand the topic under investigation. Again, the study supervisors assessed and checked if the questions effectively captured the topic of the current study. The questionnaire was evaluated by the NWU’s Statistical Consultation Services (experts on questionnaire design and analysis of quantitative data) to check for and correct common errors like ambiguous, unethical, frustrating and leading questions. Furthermore, they checked whether questions would allow consistency of responses and if the organisation of the questions was logical. The researcher tested the questionnaire by collecting pilot data from both the subset of the research participants who participated in ECAs at TUT in 2018, 2019 and 2020 and those who did not participate. A pilot test was

conducted on n=15 of the respondents, that is, 9 TUT students representing the group that participated in ECAs and six students representing the category that did not participate in ECAs. All respondents spent not more than 10 minutes in completing the questionnaire, and found all questions clear and easy to understand. Furthermore, the researcher did not receive any complaints about the layout of the questionnaire or the readability of the questions. This was taken to mean that the questionnaire was well structured, and therefore had a high face-validity. Finally, the researcher captured and analysed the pilot data in a Google Form spreadsheet and the pilot responses were consistent. The researcher found that questions were able to explore students' perceptions of the influence of ECAs on their SDL abilities.

3.6.1.2 Qualitative data collection method

In this study, the researcher used qualitative data collection methods for the second phase of this mixed-methods sequential explanatory research. According to Gill, Stewart, Treasure and Chadwick (2008:294), "there are a variety of data collection methods in qualitative research such as observation, textual or visual (e.g., from books or videos) analysis and interviews (individual or group)." Bhat (2020:1) asserts that qualitative data collection methods "are usually more focused on gaining insights and understanding the underlying reasons by digging deeper." Bhat (2020:1) further highlights that the collected research data is used to examine a) knowledge around a specific issue or a program, experience of people, b) meaning and relationships, and c) social norms and contextual or cultural practices demeaning people or impacting a cause. In this study, the researcher collected the qualitative data in order to probe deeper and get more insight by following up the students' claims, drawn from the quantitative results, regarding the influence of ECA participation on the academic performance and their SDL.

Since this is a sequential explanatory study, it was important to collect the qualitative data because the quantitative data alone could not enable the researcher to get in-depth answers to the research questions. Ainsworth (2020:1) stated that "qualitative data collection methods come into play after it became known that quantitative data collection methods were unable to provide a depth of understanding of raw data and also were unable to assess factors like the thoughts and feelings of the research

participants." Brinkerhoff (2003:91) notes that researchers use qualitative data collection methods to understand verifiable and documentable responses, which should be proven and supported by evidence. For this phase, the qualitative data was collected with permission from a sample *(see, section 3.5.2.2)* of TUT students who participated in the first quantitative phase of the study. Beryl (2017) claims that "qualitative methods are time-consuming and expensive to conduct, and so researchers try to lower the costs incurred by decreasing the sample size or number of respondents." For this study, individual interviews were used for the qualitative data collection.

(a) Personal interviews

McGrath, Palmgren and Liljedahl (2019:1002) view interviewing as a qualitative data-collection tool which assists researchers to understand the respondents' subjective perspective of a phenomenon. Gill, Stewart, Treasure and Chadwick (2008:295) assert that an interview is one of the main and most common methods of data collection in qualitative research and enables researchers to access areas not accessible using quantitative methods and/or where depth, insight and understanding of specific phenomena are needed. For this study, the researcher used individual interviews to elicit the meaning of the quantitative results about TUT students' perceptions of the influence of ECAs on their SDL.

Batmanabane and Kfouri (2017:7) categorise qualitative interviews into three types, namely i) structured, uses structured questionnaires with relevant and meaningful response categories, ii) unstructured, uses no specific predetermined questions, and iii) semi-structured, generally structured around a specific series of open-ended questions, with other questions emerging from the process of the interview. In this study, the researcher used semi-structured individual interviews to collect data as they were suitable for the exploration of perceptions of research subjects, and it was done in the students' spare time. DeJonckheere and Vaughn (2019:2) claim that "the overall purpose of using semi-structured interviews for data collection is to gather information from key informants who have personal experiences, attitudes, perceptions, and beliefs related to the topic of interest, support this approach." Adams (2015:494) agrees that semi-structured interviews can be useful as an

alternative to a survey, complementing and adding depth to other approaches. In doing so, the interview guide(s) was used to assist with the protocols of the interview. Adams (2015:496) states that the interview guide "is the outline of planned topics and questions to be addressed in their tentative order." Furthermore, Adams (2015:496) highlights that to conduct semi-structured interviews with different groups, each group will require a specific type of guide. It is for that reason that the researcher used specific interview questions for the two main groups of respondents respectively, namely i) questions for those that participated in ECAs at TUT (experimental group) and ii) for the group that did not participate (control group) (see APPENDIX B).

Drabble, Trocki, Salcedo, Walker and Korcha (2017:2) suggest two ways of conducting research interviews, that is, telephonic and in-person interviews. In this instance, telephone interviews were conducted to gather qualitative data and interviews were audio-recorded using an *Olympus* audio recording device. An audio recording of the interviews was identified as an appropriate choice for capturing so as to accurately transcribe the interviews more effectively (Jamshed, 2014:1) and that, as stated by Saylor Academy (2012b:1), recording interviews enables the researcher to focus on the interaction with the interview participant/s rather than writing down their words. Novick (2008:4) argues that telephone interviews allow participants to relax, talk freely and give requisite information. The interviews were done in sequence, first with the negative cases group (those students who claimed to have performed poorly academically because of their participation in ECAs), secondly with the positive cases group (those students who claimed to have performed better academically because of their involvement in ECAs) and finally with the zero case group (those students who claimed to have not experienced any impact of ECAs participation on their academic performance and/or SDL). Furthermore, as recommended by Botma, Greeff, Mulaudzi and Wright (2010:214), the interview recordings were transcribed verbatim from the audio recorder in preparation for the qualitative data analysis.

3.6.2 Data analysis methods

Various authors in social science research have described data analysis. For instance, Grant (2020:1) sees data analysis as a form of scientific study that aims to discover useful information from raw data. Brown (2019:1) defines it as “a process of examining in close detail the components of a given data set – separating them out and studying the parts individually and their relationship to one another.” Chapman (2018:1) refers to data analysis as the process of examining, organising and rearranging data in order to get useful information. Bhatia (2018b:1) confirms Chapman’s assertion and explains that “data analysis is how researchers go from a mass of data to meaningful insights.” In simple terms, Kawulich (2005: 97) describes data analysis as the process of selecting and organising the data into meaningful information. Various authors such as Arora (2020) and Perez (2019) contend that there are varieties of methods for data analysis, but all of them fall under two main methods, namely quantitative analysis and qualitative analysis. As stated by Peersman (2014:4), the choice of a specific data analysis method depends on the purpose the type of research questions that can intrinsically be linked to i) descriptive questions, which require data analysis methods that involve both quantitative data and qualitative data, ii) causal questions, that require a research design to address attribution and contribution (to what extent the intervention caused the observed changes, and iii) evaluative questions require strategies for synthesis that apply the evaluative criteria to the data to answer the key evaluation questions. Because of the descriptive nature of the research questions, this study adopted the data analysis methods that involved both the quantitative and qualitative data but followed the sequential phases of data collection. Onwuegbuzie and Combs (2011:3) suggest that this approach is a mixed analysis because it involves analysis, which occurs sequentially in two phases. In this study, the quantitative analysis of quantitative data precedes the qualitative phase analysis of qualitative data.

3.6.2.1 Quantitative data analysis method

Bhatia (2018b:1) suggests two data analysis methods in quantitative research, namely i) *descriptive analysis*, used by researchers to get true numbers to summerise individual variables and identify patterns, and ii) *inferential analysis*, which shows how multiple variables are related to each other to generalise results and makes a prediction. In this study, the **descriptive analysis method** was

adopted to process and analyse quantitative data, and it was used mainly to compute the responses of the participants regarding their perceptions of the influence of ECAs on their academic achievement and their SDL. In this regard, the researcher used descriptive statistics to calculate (see Gitlin, 2019:1 & Bhatia, 2018b:1), *viz.*, i) *percentages,* used to express how the value or set of responses in the data compares to another set of responses ii) *frequency distribution*, the number of times a value is found, and iii) *cross-tabulation*, which organises research participants' responses based on shared background information or survey responses, enabling a comparison between each group's responses. The researcher also used *factor analysis* to analyse the quantitative data. According to Stephanie (2014a:1), "factor analysis is conducted to find hidden patterns, show how those patterns overlap and show what characteristics are seen in multiple patterns." In this study, factor analysis was used to find out patterns and correlations among scores of the two groups of students regarding their perceptions on the influence of ECAs on their academic performance and SDL. Plucker (2003:20) refers to this process as a way of finding if the variable scores "clump together." Furthermore, the researcher also used a t-test to analyse the quantitative data. Jovancic (2019b:1) indicated that the t-test is a statistical test used to compare two means (averages) to find out whether they are different and how significant the difference is. Bevans (2020:1b) states that "a t-test is a statistical test that is used to compare the means of two groups." In this study, a t-test was used to compare the values of the means of students who participated in ECAs (experimental group) and students who did not (control group) and determine if any significant difference in mean scores exists between the two groups.

The quantitative data was also classified based on demographic information. DeFranzo (2012:1) asserts that demographic analysis enables the researcher to divide data "into various data groups based on demographic information gathered from the survey." Therefore, this information was used to compare respondents' answers to the questionnaire. As stated by Ruja and Harinarayana (2016:11), Google Forms enable researchers to analysis data and make graphical presentation online. The web questionnaire, which the participants completed online, allowed for an automatic data recording on a Google Forms spreadsheet. Ruja and Harinarayana (2016:10) further contend that Google Forms record the respondent

“data in its spreadsheet and provides an opportunity to export other statistical packages for further analysis if required”. The data responses that were stored in Google Spreadsheet were converted to a Microsoft Excel spreadsheet for further analysis. This means that the questionnaire responses were entered automatically into Microsoft Excel. Bose (2018) draws attention to the fact that entering data in Microsoft Excel helps the researcher to understand and recognise patterns in the data set. In the same tone Rose, Sprinks and Canhoto (2015:1) contend that Microsoft Excel is one of the best tools to be used for descriptive statistical function. The researcher also liaised with the NWU Statistical Consultation Services for guidance in analysing and interpreting the data gathered. Furthermore, data was analysed using the Statistical package for the social sciences (SPSS) software. Data was interpreted using tables, graphs and charts for each ECAs category and answers on SDL abilities.

3.6.2.2 Qualitative data analysis method

Wong (2008:14) defines qualitative data analysis as “the process of systematically searching and arranging the interview transcripts, observation notes, or other non-textual materials that the researcher accumulates to increase the understanding of the phenomenon.” Research-Methodology (2019) and Caulfield (2019) provide a repertoire of methods available for qualitative data analysis, namely i) thematic analysis, which is usually applied to sets of texts such as interview transcripts, ii) narrative analysis, which involves the reformulation of stories presented by respondents taking into account the context of each case and the different experiences of each respondent, iii) discourse analysis, a method of analysis of naturally occurring talk and all types of written text, iv) framework analysis, which consists of several stages such as familiarisation, identifying a thematic framework, coding, charting, mapping and interpretation, and v) grounded theory, which starts with an analysis of a single case to formulate a theory and then, additional cases are examined to see if they contribute to the theory. In this second phase of the study, and in view of its appropriateness to the research question, the researcher adopted the **thematic analyses method** to analyse the qualitative data. Caulfield (2019) explains thematic analysis as a method that allows researchers to closely examine the qualitative data to identify themes- topics, ideas, and patterns of meaning that

come up repeatedly. Maguire and Delahunt (2017:3353) point out that thematic analysis is “a pattern that captures something significant or interesting about the data and/or research question.” Similarly, Liamputtong (2009:135) regards thematic analysis as “a method for identifying, analysing, and reporting patterns (themes) within the data”.

Harrell and Bradley (2009:100) suggest two approaches to use when conducting qualitative data analysis, namely i) inductive analysis, used to examine the data and identify unexpected relationships or issues emerging from the data, and ii) deductive analyses, used to confirms information for the researcher. For this study, the researcher adopted an **inductive approach** to explore and elicit the meaning of interview data from the ECAs participants and non-participants. This was done to help the researcher to interpret and draw a conclusion on the influence of ECAs on students’ SDL abilities. Caulfield (2019:1) affirms that an inductive approach to thematic analysis involves allowing the data to determine the themes. In so doing, the researcher mirrors the steps required for the process of qualitative data analysis, as depicted in Figure 3.2 (cf. Chahine, 2020).

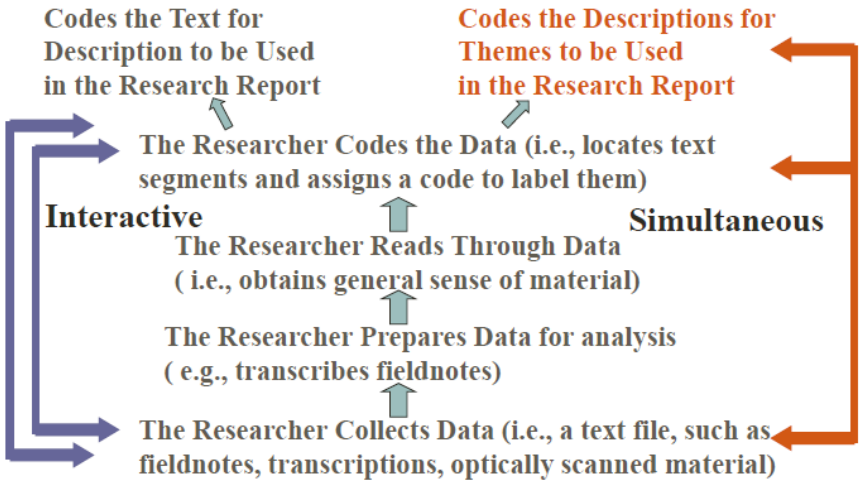


Figure 3. 2 The processes of quantitative data analysis
Source: Chahine (2020:68).

As shown in Figure 3.2, the researcher prepares, familiarises and arranges data to obtain a clear understanding of its general sense prior to in-depth analysis. In brief,

the researcher follows three major steps for the qualitative data analysis (Research-Methodology, 2019):

Step 1. Developing and Applying Codes

Kawulich (2004:98) asserts that coding of the transcribed data from the interview is the initial step in the process of qualitative data analysis. Therefore, the researcher transcribed the recorded interview audio verbatim, acclimatised himself with the data through reading and studied and analysed the data, and identified codes. In doing so, the researcher identified codes manually. According to Mortensen (2020:1), manual coding involves taking notes on the printed transcript to give a brief description of what was said in the interview. Furthermore, the researcher managed through highlighting sections of the transcribed texts to come up with a code to describe the contents (cf. Caulfield, 2019). In simple terms, the researcher labelled the sections of transcribed data that relate to the research questions with code word(s). Coding merely "involves subdividing the huge amount of raw information or data and subsequently assigning it into categories" (Wong, 2008:19). In addition, Saldana (2013:3) considers a code in a qualitative study to be "a word or short phrase that symbolically assigns, salient, essence-capturing, and/or evocative attributes for a portion of language-based or visual data." As recommended (Saldana, 2013:70), the researcher applied the in-vivo coding to get the word or section from the actual language found in the text. Through this process, a variety of codes emerged from the data. As a matter of fact the researcher sorted the codes and grouped interrelated codes together to generate thematic categories. Yi (2018) outlines that categorisation involves putting similar codes into the same category in order to find a way that reflects the analysis of data best and avoiding a messy collection of codes in the study.

Step 2. Identifying themes, patterns and relationships

Maguire and Delahunt (2017:3353) assert that a theme is a pattern that conveys the nature of the data being investigated. The researcher identified themes from each category of codes by narrowing down the codes and identifying the emerging patterns. Yi (2018) provides an extensive discussion of how the categorisation of

codes reflects themes. For this study, the emerged themes were descriptive in nature, i.e., the researcher used descriptive codes to summarise, “the basic topic of a passage of qualitative data in a word or short phrase, most often as a noun” (Saldana, 2013:62). In order to generate true meaning from the analysis, the researcher checked for text data that supported each theme by colour-coding that section of text. This theming process enabled the analysis of the texts which have in common a storied form and which give rise to repeated similarities in the research participants’ narrative (cf. Riessman, n.d.). Furthermore, the researcher checked the relationship between themes.

Step 3. Summarising the data

At this stage, as recommended by Nigatu (2009:63), the researcher demonstrated the meaning of each theme. This was done by showing data as evidence regarding the influence of ECAs on SDL.

In brief, interview data were examined and coded. All codes were further analysed for similarities and relationships. Codes that were interrelated were grouped together to form categories. Categories were further analysed and those that linked were grouped together and, themes emerged. As discussed earlier in this study, qualitative analysis was done through the Cultural Historical Activity Theory as the research lens.

3.7 RESEARCH LENS: CULTURAL HISTORICAL ACTIVITY THEORY

In this study, the researcher linked the identified themes to the various elements of Cultural Historical Activity Theory (CHAT), which is the research lens of the study, in trying to analyse the interview data for the provision of more nuanced insight into how ECAs participation influences students’ SDL. In doing so, the researcher used the third-generation CHAT (Engeström: 1987) to outline the dialectic relationship between students’ participation in ECAs and their SDL. Third-generation CHAT, as stated by Mentz and De Beer (2019a:56), is a useful research tool that helps the researcher to interpret and find meaning of data rooted in certain cultural and historical contexts. Simply put, Gretschel, Ramugondo and Galvaan (2015:51)

describe CHAT as a cogent conceptual tool to guide thinking about, observations of and analyses of what people do. Mentz and De Beer (2019a:56) state that “CHAT has its roots in social constructivism, and its development as a research lens was predominantly influenced by the work of Vygotsky and considers human psychological functioning as embedded in culture and history.” Yamagata-Lynch (2010, cited in Buma, 2012:72) outline CHAT as “a concept that was introduced in the 1920s by Lev Vygotsky (a Russian psychologist) who was interested in identifying methods that could objectively study and explain how human activity such as learning takes place.” Again, Mentz and De Beer (2017:101) conclude that “CHAT offers a cross-disciplinary perspective for analysing human practices as development processes in which both individual and social levels are interlinked.” In the same breath, Meyer (2007:1) states that “CHAT addresses human activities as they relate to artefacts, shared practices and institutions, thus going beyond individual knowledge and decision making to take a developmental view of minds in context.” Ratner (2002; 2006) also points out that “this systemic view of activity posits that each element is related to all other elements dialectically, that is, they are distinct yet interdependent.” In this regard, Wei (2019:40-41) states that “CHAT integrates various elements in human activities (i.e. subjects, tools, objects, rules, community, division of labour, and outcomes) in a systemic and interacting manner” within an activity system (cf. Figure 3.4 in the next subsection). Buma also (2015:75) notes that in an activity system, the subjects use mediating artefacts to act on the object in order to transform it into a specific outcome. Gretschel, et al. (2015:43-44) and Vygotsky (1978, cited in Foot, 2014:3) outline some basic tenets and characteristics of CHAT which the researcher found relevant to this study:

- CHAT provides a well-suited lens that recognises that what people do cannot be separated from the context and the aspects of power and power relations inherent in the context;
- CHAT dialectically links the individual and the social structures in which they exist, attending not only to the interpersonal and communicative behaviour of individuals but also to the historical, economic, cultural and political aspects shaping the object-orientated-ness of the activity;
- In CHAT the unit of analysis is the activity system (Engeström, 1987);

- CHAT offers an extended view of the interaction of activity systems and the way in which two or more activity systems may interact to form new objects and outcomes;
- With CHAT, humans act collectively, learn by doing, and communicate in and through their actions;
- Humans make, employ, and adapt tools of all kinds to learn and communicate; and
- The community is central to the process of making and interpreting the meaning and thus to all forms of learning, communicating, and acting.

3.7.1 Evolution of the Cultural Historical Theory (CHAT)

According to Gretschel, et al. (2015:52), the acronym CHAT "is extended as follows: i) *Cultural* positions humans-the subject of activity theory –as beings shaped by their cultural views and resources, ii) *Historical* highlights the inseparable influence of our histories on our actions, and how this history shapes how we think, iii) *Activity* refers to the doing of people, together, that is modified by history and culture, and situated in context, and iv) *Theory* refers to the conceptual framework that activity theory offers for describing and understanding human activity." Spinuzzi (2020:4) argues that although CHAT "is rooted in Vygotsky's sociocultural understanding of cognition, it was named and developed by Vygotsky's colleague Leontiev." However, the most influential factor is Engeström's activity theory which has been extended and modified to apply to learning in organisations (Engeström, 1987). Table 3.1 shows generations of activity theory and their differences.

Table 3. 1 Contrast across generations of activity theory

	Vygotsky(1AGAT)	Leontiev(2GAT)	Contemporary CHAT(3GAT)
Theory	Grand	Middle-range	Middle-range
Research focus	Basic	Applied, practical	Applied, practical
Disciplinary orientation (research)	Psychology	Psychology, psychophysiology, sociology	Organisational sociology, cultural psychology
Disciplinary orientation (application)	Pedagogy, defectology, rehabilitation, cross-cultural psychology (dyads of more and less culturally advanced practitioner)	Pedagogy, defectology, rehabilitation, (dyads of more and less culturally advanced practitioners)	Management (systems of employees and managers); Design (systems of users and symbolic artifacts)
Unit of analysis	Meaning and (later) sense	Labour activity	Organisational activity and activity networks
Empirical focus	Individuals and dyads: individual subjects	Individual-in-activity and dyads; individual subjects	Groups, organisations, and interconnected social systems, collective subjects
Location of development or change	The individual's capabilities	The individual's capabilities in relation to society	The organisation's capabilities (in mediators)
Agent	Self	State	Participants

Source: Spinuzzi (2018, cited in Spinuzzi, 2020:6).

Table 3.1 shows the three generations in the development of CHAT, i.e., first generation activity theory (1GAT) developed by Vygotsky, the second generation activity theory (2GAT) developed through Leontiev's contributions and the third generation activity theory (3GAT) which has emerged as contemporary activity theory. Furthermore, this table illustrates the sequential development of the generation activity theories with the 1GAT developed first and the 3GAT emerging after the 2GAT. And again, this table signifies that the 2GAT is an extension or modification of the 1GAT and that 3GAT was developed upon 1GAT and 2GAT.

- First generation activity theory

Engeström (1987:5) indicates that the 1GAT is commonly expressed as the triad of the subject, object and mediating artefacts as depicted in Figure 3.3. Vygotsky

(1978) highlights that human beings, as agents, respond to and act upon objects in their environment and, consequently, cause various outcomes.

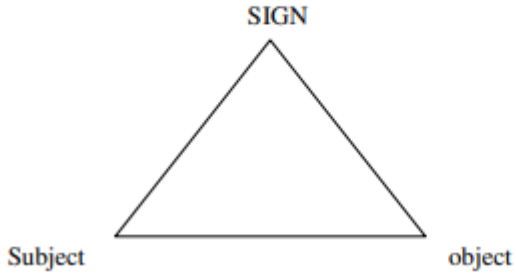


Figure 3. 3 First generation activity theory mediational triangle
Source: Vygotsky (1931, cited in Veresov, 2007:1).

Figure 3.3 shows that CHAT has a foundation on Vygotsky's 1GAT. This figure also suggests that developed mental functions do not appear through social relations but through sign-mediated operations between the subject and the object. This means that the subject relies on his individual action to reach the object, Vygotsky (1978, cited in Miettinen, 2001:298) highlights that the emergence of tools and the use of signs in an activity revolutionised the nature of higher mental functions. Bugrimenko and El'konin (2001:20-21) simplify:

> "Sign mediation in the context of Vygotsky's cultural historical theory refers to a change in the nature and structure of a mental process through a sign (the transition from the natural to the cultural, from the direct to the mediated); at the same time, it identifies the sign as a means used by man to organise his own behaviour… For the "learning activity" branch of Vygotsky's school, the participation of learning in development is a natural result of the child's construction of operations with objects within the logic of concept formation."

Although this activity theory has been modified over time, Veresov (2007:1) argues that it is easy to recognise Vygotsky's famous triangle even in the most advanced models of CHAT.

- Second generation activity theory

As indicated in Table 3.4, the second-generation activity theory is attributed to Leontiev. Roth (2007:40) emphases that 2GAT “drew its inspiration from Lev Vygotsky’s work but constituted an advance over Vygotsky’s 1GAT by explicitly articulating the dialectical relation between individual and collective.” Leontiev (1978, cited in Batiibwe, 2019:4) went beyond by modifying the individual into a collective activity by integrating community and the division of labour into Vygotsky’s model, thus making it more of a systems approach (see figure 3.4).

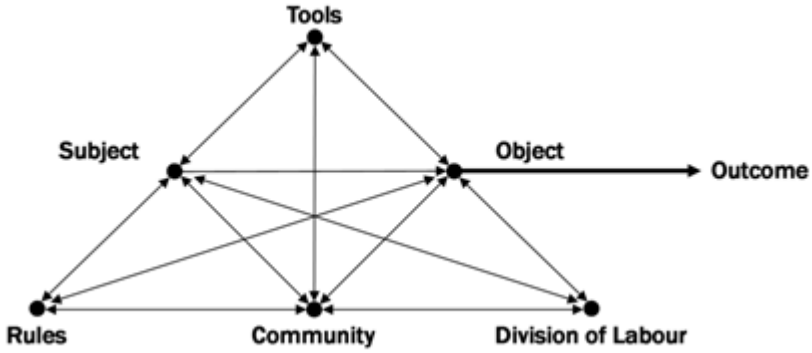


Figure 3. 4 Second-generation activity theory model
Source: Meyer (2007:1) and Engeström (1987: 78).

Figure 3.4 shows that the subject reaches his/her objective not only through the use of tools which are mediating artifacts, as it is the case with the 1GAT but through the rules, the community and division of labour in an activity system that play an equal role. This figure shows the triangle of Vygotsky at the top of the three added triangles, thus confirming his foundational role. This figure also shows that the subject reaches the objective through collective activity. Engeström (1987:5) states that although Leontiev tried to modify and overcome the limitation of the 1GAT, he did not graphically expand Vygotsky's original model into a model of a collective activity system, which resulted in its limitation so that 2GAT needed to be modified.

- Third generation activity theory

As shown in Table 3.4, the 3GAT is attributed to Engeström and it was developed by expanding 1GAT and 2GAT. Batiibwe (2019:5) mentions that Engeström incorporated the 1GAT "into his ideas by taking into account inter-relationships between the individual and the community, history, context, and interaction of the situation and activity." Engeström (2001, cited in Batiibwe, 2019:6) highlights that inter-relationships exist in an activity system to encourage collective learning, which is the central part of the 3GAT. According to Engeström and Glăveanu (2012:517), 3GAT "refers to theories and empirical studies that expand the unit of analysis from a single activity system to a multiple, minimally two; interacting activity systems" (see Figure 3.5). Thirdly, 3GAT brings the interaction of different activity systems and how different activity systems can integrate with one another to create new objects and outcomes. Yamazumi (2006, cited in Igira and Gregory, 2009:439) maintains that "3GAT goes beyond the limits of a single activity system and takes as its unit of analysis the plurality of different activity systems that mutually interact, promoting multiple perspectives and voices, dialogues, networks and collaboration between activity systems." This means student learning across the zone of proximal development can be attributed to many variables at play, as shown in Figure 3.5.

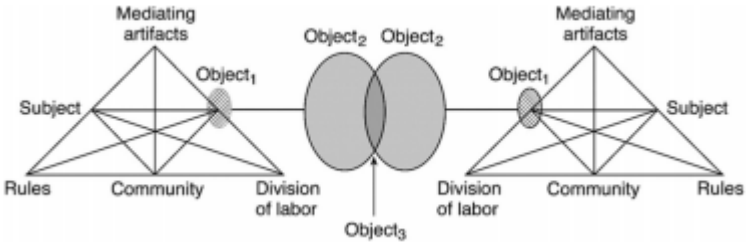


Figure 3. 5 Third generation activity theory model
Source: Hardman (2015, cited in Batiibwe, 2019:19).

In Figure 3.5, the researcher observes two interrelated activity systems that serve as the unit of analysis in this study. This figure also means that 3GAT, unlike the previous two activity theories, has more than one activity system with one shared object. As stated by Khayyat (2016:3), the 3GAT enables researchers to observe a potentially common object between two activities that are comparable. In this study, qualitative data were analysed, taking into consideration these two separate but

comparable activity systems, which represent both students participating in ECAs and students not participating in ECAs. Their views on the influence of ECAs on SDL were compared in order to answer the research questions.

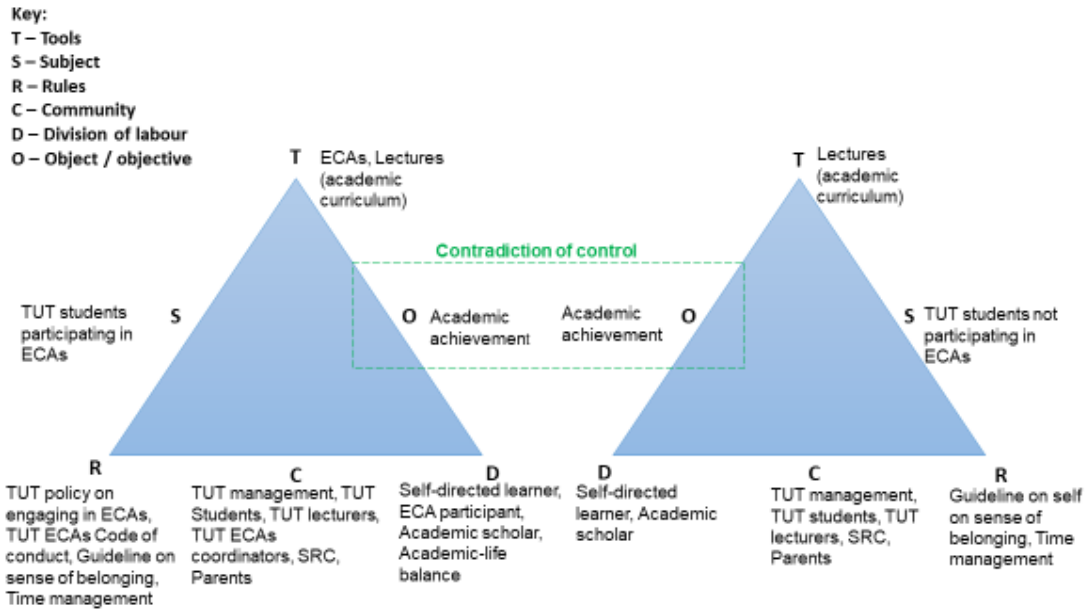
As shown in Figures 3.4 and 3.5, both generation activity theories have one thing in common, i.e., the learning takes place within an activity system that has various components at play that assist a student's learning.

Although table 3.1 above indicates three generations in the development of CHAT, authors such as Mentz and De Beer (2019), Spinuzzi and Guile (2019) and Khayyat (2016) highlight the improvement of 3GAT and the emergence of fourth-generation activity theory (4GAT). For example, Khayyat (2016:5) indicates that 1) four more elements have been added to the AT model (motivations, barriers, level of awareness, and effectiveness) and 2) some terms have been changed; the subject has been changed to people, and the object has been changed to the objective in order to remove the vagueness of both terms. As indicated by Mentz and De Beer (2019:266), third-generation CHAT provides insight into factors that hinder students' learning. However, it is only through the application of 4GAT that researchers get or provide solutions and recommendations on how to overcome these barriers. In this study, the researcher used 4GAT to develop recommendations to address barriers to SDL and promote good academic performance amongst TUT students.

3.7.1.1 Applicability of data analysis using CHAT in this current study

This study seeks to link ECAs participation and students' academic achievement using CHAT as the theoretical lens to extract meaning from the collected data. In doing so, the researcher developed the foundational unit of analysis, i.e., two activity systems, to check if there were tensions between them, as shown in Figure 3.6. Foot (2014:5) indicates that activity systems are multi-voiced in that they model collective activity undertaken by the actors with different roles, positions, and perspectives. Engeström (2009, cited in Mentz & De Beer, 2019a:61) points out that researchers should always consider two interdependent activity systems as the minimum unit of analysis when conducting research so that they juxtapose two activity systems and see if the contradiction of control (McNeil: 2013) exists. In this

study, the research contrasted the students participating in ECAs with students not participating in ECAs.



Source: De Beer, J. J., & Mentz, E. (2017). A cultural-historical activity theory focus on the holders of indigenous knowledge as self-directed learners: Lessons for education in South African schools. Suid-Afrikaanse Tydskrif vir Natuurwetenskap en Tegnologie, 36(1), 11.

Figure 3. 6 Cultural Historical Activity Systems with two interdependent activities

Figure 3.6 shows how the activity system works and how the two groups of the research participants were scaffolded to achieve their academic and SDL learning abilities, i.e., students who participated in ECAs and those that did not. As demonstrated in this figure, six components form the activity systems, namely subject, tools, rules, community, division of labour and the object. This illustration also supports the view of Mentz and De Beer (2019b:257), who indicate that CHAT provides a useful heuristic to develop an understanding of how tools, rules, the community, and the division of labour influence the envisaged object. In addition, this figure denotes that (Meyer, 2007:1) learning is not a one-time isolated event; rather, it is an ongoing process that is influenced by the environment and circumstances. Therefore, ECA participation could be one of the scaffolding that TUT uses to aid students to move from their actual to their potential development. Gretschel et al. (2015:52) put it nicely:

> "In the uppermost triangle, collective activity is reflected as the action/s undertaken by people (subjects) who are motivated by a purpose or towards the solution of a problem (object),

> which is a process mediated by tools used in order to achieve the goal (outcome). The lower three triangles extended on and introduced by Engeström highlight how the collective activity of the subjects is influenced by cultural and socio-historical factors including conventions (rules) and social organisation (division of labour) within the immediate context and framed by broader social patterns inherent in the community in which the activity exists. The intersecting arrows within the triangle highlight the reciprocal relationships between the elements of an activity system."

Figure 3.6 also denotes that the analysis of students from both units shows they have the same goals, that is, to have positive academic achievement. Therefore, the researcher analysed data using CHAT to see if students' involvement in ECAs had a negative or positive impact on their academic performance and the data was further juxtaposed with that of TUT students not participating in ECAs.

As stated above, various factors constitute that activity system:

The subject is the individual or groups of individuals involved or directly participating in the activity within the activity system studies (Matiibwe, 2019:6 & Gretschel, et al., 2015:53). Figure 3.6 shows that the subjects in this study are TUT students participating in ECAs at TUT and students not participating. Students (subjects) participating in ECAs comprise different groups, namely, choir students, drama students, debate students, peer education students, soccer students, street poetry students, and top-junior leadership students.

The object is the motivating influence behind the subjects' participation in the activity (Matiibwe, 2019:6). It is referred to as the target or product of the activity system (Nardi, 1996, cited in Trust 2017:100). It is the space towards which the subjects address their activity (Gretschel et al., 2015:53). In this study, all students from each activity system aim to perform well academically. The researcher compared data from both subjects to see if the contradiction of control exists because of the other subjects' involvement in ECAs, that is to say, to see if students participating in ECAs at TUT achieved better results academically and showed more SDL attributes, as compared to the group of students that did not participate.

Tools are symbols, signs, and conceptual understandings that serve as physical and psychological tools, mediating activity between the subject and the object (Matiibwe, 2019:6). “Tools are employed by the subject to act on the focal object or to pursue the desired outcome and can be either material or conceptual such as language, protocols, scientific methods and models, and other forms of cultural artefacts” (Foot, 2014:5). Figure 3.6 suggests that some students might use lectures and possibility of students using ECAs and lectures to reach their goal, i.e., to have a positive academic achievement. The researcher investigated the role played by ECA as a tool in student cognitive development and learning. Drawing on Shabani, Khatib and Ebadi (2010:238), the use of tools in learning move scaffold students from their actual level of development to the next (potential) level of development or higher mental function.

Rules provide a lens for understanding how to become a full participant in a community Rules are the etiquette and guidelines that influence participation in the community (Trust, 2017:100-102). “Rules in an activity system primarily mediate what the subject pursues the object of the activity, i.e., how the subject acts in relation to the object, including the tools employed and the ways they are used” (Foot, 2014:8). In this study, many rules govern this activity system, namely TUT policy on ECAs, TUT ECAs code of conduct, time management and guidelines of SDL. The researcher, who is a staff member at TUT in the faculty of Student Affairs and Extracurricular Development (SAED), is familiar with the policy and guidelines on ECAs participation. In brief, the policy and guidelines (Tshwane University of Technology, 2020b) advocate that students who participate in ECAs should balance their academic work and ECAs in order to succeed academically and socially. This also means that students need to respect and accommodate diversity and show respect to fellow students and staff members (Tshwane University of Technology, 2020a).

Community is the social and cultural group that subjects are a part of, with explicit rules or social norms that regulate and influence behaviour (Matiibwe, 2019:6 & Trust, 2017:100). In this study, as shown in Figure 3.6, a various group of individuals exist within an activity system to support the students (subjects) in reaching their potential development, namely TUT Management, TUT staff, TUT students, TUT

lecturers, TUT ECAs coordinators and Student Representative Council (SRC). As stated by Trust (2017:100), the community members negotiate the division of labour and rules for participation in ECAs.

Division of labour describes how tasks and responsibilities are distributed among participants as they engage in an activity (Matiibwe, 2019:6). It tells whether participants take on different roles in an activity (Trust, 2017:102). According to Foot (2014:8), "the division of labour construct in the activity system references the fact that who does what in relation to the object, i.e., which members of the community engage in which types of actions using which tools" (sic). As shown in Figure 3.6, for students (subjects) to achieve academic performance, they need to balance their social and academic life, they must be self-directed learners, academic scholars and participate in ECAs. The researcher paid attention to student participation in ECAs to check if indeed their involvement in ECAs at TUT influenced the students' academic achievements, which is the desired outcome.

3.8 COMPLIANCE WITH ETHICAL STANDARDS

The World Health Organisation (2011) and the American Psychological Association (2003) provide an extensive discussion on ethical standards and procedures in conducting scientific research. Fouka and Mantzorou (2011:3) point out that the ethical standards in research involve the protection of the dignity of research participants and the publication research results. Canterbury (n.d.:3) posits some reasons for the compliance to ethical standards and the need for ethics approval for research with human participants, namely: i) to protect the rights and welfare of participants and minimise the risk of physical and mental discomfort, harm and/or danger from research procedures, ii) to protect the rights of the researcher to carry out legitimate investigation as well as to protect the reputation of the university regarding for research conducted and/or sponsored by it, iii) to minimise the likelihood of claims of negligence against individual researchers, the university and any collaborating persons or organisations, and iv) because research funding bodies and refereed journals increasingly require a statement of ethical practices in applications for research funds and/or as a condition for publication. Similarly, Mostafa (2014:1) asserts that "the key ethical standards that should underlie a

research project are behavioural rules and regulations established by professional organisations and culminated in the researchers' inner desire to act honestly, fairly, and wisely". Editage (2018:1) argue that it is imperative for every researcher to adhere to the ethical considerations and to be aware of the ethical implications of the research. In that light, it is correct to state that ethical principles are crucial and also form an indivisible part of conducting research (UNICEF, 2013). In this study, the following principles were observed in order to clear research ethical quandaries:

3.8.1 Voluntary and informed consent

Nijhawan, Janodia, Muddukrishna, Bhat, Bairy, Udupa and Musmade (2013:134) contend that informed consent "is the process whereby a participant is informed about all aspects of the research, which are important for the participant to make an informed decision and after studying all aspects of the research the participant voluntarily confirms his or her willingness to participate in a particular study." In agreement with Nijhawan et al., Canterbury (n.d.:4) points out that informed consent entails three major components, i.e., *information*, *voluntariness* and *comprehension*. Therefore, in this study, the research participants were provided with sufficient and accurate detail about the nature of the study and the procedures involved. The participants signed the consent form (see APPENDIX C) prior to their involvement in this study, which required them to divulge their experiences and thoughts on ECA participation and their SDL abilities. The consent form explained their level of involvement, how and why they were selected, and that participation was completely voluntary so that they (the participants) could withdraw from participation at any stage if they so wished, without any negative consequences. Furthermore, participants were also required not to answer questions they were not comfortable with. Consent was voluntarily given and participants made informed choices regarding their involvement in this study.

3.8.2 Beneficence

According to ACFID (2017:8), "the ethics principle of beneficence implies that the expected benefit to participants or the wider community justifies any risks of harm or discomfort to participants." In this study, the researcher assured the participants that

participation in this study did not subject them to risks at all. The knowledge generated through this study could benefit the participants and the TUT community at large.

3.8.3 Confidentiality and anonymity

Wiles, Crow, Heath and Charles (2008:418) refer to confidentiality as “not discussing with others information provided by an individual and presenting findings in ways that ensure individuals cannot be identified (chiefly through anonymisation).” Wiles, Crow, Heath and Charles (2008:417) also believe that the “concept of confidentiality is closely connected with anonymity in that anonymity is one way in which confidentiality is operationalised.” Petrova, Turcotte-Tremblay and Sween-Cadieux (2018:6) argue that without the assurance of confidentiality, research participants aren't guaranteed privacy, so they might refuse to share data or may even hide important data from the researcher. Dewing and Camilleri (2014:3) also note that values associated with confidentiality include autonomy, privacy and keeping a commitment. As indicated by Kaiser (2009:4), researchers collect, analyse and report both quantitative and qualitative data without compromising the identities of their respondents. The researcher, therefore, replaced the names of respondents with pseudonyms during data analysis and reporting. The respondents were assured that their identities would remain anonymous and that the information provided was meant for the purposes of this study only. Over and above this, the researcher deleted the original audio records after transcription to avoid an information leak and the questionnaires data together with the interview transcriptions were kept in a safe place to avoid unauthorised person’s reach. Smith (2003) asserts that confidential records should be stored in a secure area with limited access, and considers stripping them of identifying information, if feasible.

3.8.4 Institutional permission

As stated by Buma (2015:19), this principle requires researchers to obtain the necessary permission from relevant authorities. To achieve this, the following was done:

- The researcher completed a 1-day research ethics training as required by NWU (see APPENDIX F);
- The researcher applied for and was granted ethical clearance for the research by the NWU-REC ethics (see APPENDIX E); and
- The researcher sought and obtained permission from SAED at TUT (see APPENDIX G - J for permission letter).

3.9 DELIMITATION OF THE STUDY

Theofanidis and Fountouki (2019:157) posit that delimitations refer to the boundaries or limits within which the researchers decided to conduct their work in order to achieve their overall goals. The focus of this study was on the perceptions of TUT students regarding the effects of ECAs on their SDL abilities. This study included students at TUT who participated in ECAs in the 2018 - 2020 academic year who agreed to participate in the current study and was confined to TUT. The rationale behind this selection was to explore and investigate whether their involvement in ECAs bore any meaningful effect on their academic performance. This study also included TUT students who did not participate in ECAs at TUT but consented to form part of the research study voluntarily. This was done in an attempt to determine whether a “contradiction of control,” to use CHAT (McNeil, 2013:1) language, exists between students who participated in ECAs at TUT and students who did not participate. TUT is one of the largest universities in South Africa with various ECAs for its students’ population. It was therefore not possible for the researcher to carry out investigations on all the ECAs offered at TUT as it would require too much time and of money. Hence, the investigation targeted students participating in Choir, Debate, Drama, Peer education, and Soccer, Street-poetry, and Top-junior leadership programmes.

3.10 CHAPTER SUMMARY

In this study, the research design, research methods, data collection and data analysis methods applied to answer the research questions were outlined. The reasons for using the mixed-methods sequential explanatory design were presented.

The ethical standards and procedures considered for this study were discussed. The next chapter will present the systematic analysis of data, findings, and results of the study.

CHAPTER 4

DATA ANALYSIS AND PRESENTATION OF THE RESULTS

4.1 INTRODUCTION

The purpose of this study was to investigate Tshwane University of Technology (TUT) (SDL). The students' perceptions of the influence of extracurricular activities (ECAs) on their academic performance and perceived self-directed learning first three chapters presented an overview of the study, and the problem statement (Chapter 1), literature review (Chapter 2), research design, and methodology (Chapter 3). In this chapter, the researcher will analyse and present data with the view of answering the following research questions of the study:

- What are the factors that motivate students to join certain ECAs, and how do they motivate students to join ECAs?
- What perceptions do TUT students hold about their involvement in ECAs?
- What differences (if any) exist in the views of students from different demographic groups, regarding their participation in ECAs?
- What is the perceived effect of being involved in ECAs on their student academic performance?
- What is the perceived influence of participation in ECAs on students' SDL? (Students in the experimental and control groups will both complete the Cheng questionnaire for SDL).
- What strategies could student affairs practitioners follow and how may they be scaffolded to ensure that ECAs assist students in their development and learning?

The researcher seeks to analyse and present first the quantitative (QUANT) results from the questionnaire, which is the requirement for participant selection for the second phase of the study in this mixed-methods sequential explanatory study. In doing so, the researcher will provide a descriptive statistical analysis of students' perceptions of the influence of ECAs on their academic performance and SDL.

Secondly, the results of the qualitative (QUAL) data analysis obtained through individual interviews will be reported. The theoretical framework employed in this study will guide the QUAL data analysis and presentation.

4.2 QUANTITATIVE DATA ANALYSIS AND PRESENTATION

Data analysis was conducted by comparing the numerical responses of the questionnaire. Therefore, responses were presented according to the organisation and sequence in the questionnaire. The researcher used descriptive statistics to calculate percentages, frequency distribution and cross-tabulation, allowing a comparison of the participants' responses. The researcher also used the factor analysis to understand responses to the multiple variables that seemed to be related and the t-test to compare the means of the students who participated in ECAs at TUT (experimental group) and those that did not participate (control group). It is noteworthy to mention that the NWU Statistical Consultation Services assisted in analysing and interpreting the quantitative data. This section presents firstly the demographic analysis to understand the profile of the respondents, secondly the results on students' perceptions of ECA participation influence on their academic performance, and lastly, the results on students' thoughts and feelings about their SDL.

4.2.1 Demographic data

This data represents the respondents' information captured in Section A of the questionnaire. This [3]section allowed the researcher to understand the characteristics and profile of the population of this study. These include the types of ECAs that students participated in, the respondents' year of study, and other demographic information, e.g., whether participants commute or whether they are residential students.

[3] (It should be noted that henceforth the researcher used a comma (,) and full stop (.) interchangeably to express mean scores, frequency distributions, and percentages.)

4.2.1.1 The type of ECAs students participate in

The results show that students participate in various activities in TUT. Table 4.1 demonstrates this by showing the number of participants who chose each option. The validity percentage was based on those who participated in ECAs.

Table 4. 1 Valid percentage of choices of ECAs at TUT

Extracurricular Activity at TUT	Frequency	Percentage	Valid Percent	Cumulative Percent	Valid Percent (based on ECAs participants)
Choir	21	4,1	4,1	4,1	8,7
Debate	10	1,9	1,9	6,0	4,1
Drama	8	1,6	1,6	7,6	3,3
Peer Education	91	17,6	17,6	25,2	37,6
Soccer	35	6,8	6,8	32,0	14,5
Top Junior	69	13,4	13,4	45,4	28,5
Street Poetry	8	1,6	1,6	47,0	3,3
Number of participants participating in ECAs	274	53,0	53,1	100,0	
Total Sample	516	100,0	100,0		

From Table 4.1, it is evident that just more than half of the sample (n = 516) indicated that they participated in ECAs at TUT (53%), and the remainder (47%) indicated that they did not. Of those who were involved in ECAs at TUT, the distribution is as follows: Choir (8.7%), Debate (4.1%), Drama (3.3%), Peer Education (37.6%), Soccer (14.5%), Top Junior Leadership (28.5%) and Street Poetry (3.3%). This suggests that the majority of the participants involved in ECAs during 2018 -2020 were Peer Educators as 37.6% selected Peer Education as their ECA of choice. A smaller number participated in debate, drama and street poetry.

4.2.1.2 Respondents' by year of study

In Table 4.2 below, the distribution of participants by year of study is illustrated.

Table 4. 2 Valid percentage of ECA participation per level of study

Options	Frequency	Percent	Valid Percent	Cumulative Percent
1st year	100	19,4	19,4	19,4
2nd year	106	20,5	20,5	39,9
3rd year	165	32,0	32,0	71,9
4th year	100	19,4	19,4	91,3
Other	45	8,7	8,7	100,0
Total	516	100,0	100,0	

As shown, the valid percentage of ECA participation differs according to the level of study. In this regard, the sample indicated that 19.4% of 1st year's, 20.5% of 2nd year's, 32.0% of 3rd year's, 19.4% of 4th year's and 8.7% of 'Other' students (the postgraduate students) participated in ECAs. These results could also imply that third-year students (32%) were proportionately overrepresented in the sample when compared to "other" students (87%). These findings may also imply that undergraduate students are more likely than postgraduate students to participate in ECAs.

4.2.1.3 Commute and/or resident students

The results of this study show that ECA participation at TUT is open to both the students who commute and the residential students, as depicted in Table 4.3 below.

Table 4. 3 Valid percentages of commute and residents students participation in ECAs

Descriptors	Frequency	Percent	Valid Percent	Cumulative Percent
Residential students (living on campus)	295	57,2	57,2	57,2

Students who commute	221	42,8	42,8	100,0
Total	516	100,0	100,0	

According to Table 4.3, slightly fewer than 60% of the sample indicated that they stayed at TUT residences (57.2%) and the remainder (42.8%) indicated that they were commuting students. These findings could suggest that residence students were significantly overrepresented in the sample, maybe because residential students are considerably more likely to participate in ECAs at TUT than commuter students.

4.2.2 The frequencies and the descriptive statistics on students' perceptions of ECAs and academic performance (Section B), and their thoughts on SDL (Section C).

The frequencies and descriptive statistics are provided, illustrating the mean and the standard deviation regarding students' perceptions of the influence of ECAs on their academic achievement and their thoughts on SDL. The researcher provided the summary, as shown in Table 4.4, of the frequencies of students' responses on the relationship between ECA participation and academic achievement *(Section B, question 1-12)* and their thoughts on SDL *(Section C, question 1 - 20)*.

Table 4. 4 Overview of responses on students' perceptions of the influence of ECA participation on the academic achievement and their thoughts on SDL

Statements	N	Minimum	Maximum	Mean	Std. Deviation
ECAs Participation statements (Section B)					
B1 Extracurricular activities create valuable study time	242	1	5	3,58	1,147
B2 I am able to plan my time for extracurricular activities and that of my academic activities	242	1	5	3,93	1,224
B3 My involvement in extracurricular activities motivate me to do my academic work	242	1	5	3,93	1,229
B4 I balance my schoolwork and my involvement in extracurricular Activities	242	1	5	3,93	1,210
B5 I attend classes even when there are extracurricular activity drives	242	1	5	3,84	1,210
B6 My involvement in extracurricular activities results in me feeling at home at TUT	242	1	5	4,09	1,241
B7 My involvement in extracurricular activities results in me getting higher marks	242	1	5	3,48	1,120
B8 Based on my experience I can recommend involvement in Extracurricular activities to fellow students	242	1	5	4,05	1,211
B9 My participation in extracurricular activities results in me attending class regularly	242	1	5	3,54	1,131
B10 My involvement in extracurricular activities helps me improve my self-esteem	242	1	5	4,13	1,261
B11 My participation in extracurricular activities results in me refraining from risk behaviour that can distract me from focusing on my academic work	242	1	5	4,02	1,230
B12 My participation in extracurricular activities results in me an enhanced learning strategies	242	1	5	3,87	1,179
SDLi- Self-directed learning statements (Section C)					
Items C1 – C6 refer to learning motivation					
C1 I know what I need to learn	516	1	5	3,82	1,141
C2 Regardless of the results or effectiveness of my learning, I still like learning	516	1	5	3,89	1,138
C3 I strongly hope to constantly improve and excel in my learning	516	1	5	4,21	1,172
C4 My successes and failures inspire me to continue learning	516	1	5	4,13	1,190

C5 I enjoy finding answers to questions	516	1	5	4,02	1,157
C6 I will not give up learning because I face some difficulties.	516	1	5	4,16	1,185
Items C7 – C12 refer to the planning and implementation of learning					
C7 I can pro-actively establish my learning goals	516	1	5	3,97	1,130
C8 I know what learning strategies are appropriate for me in searching my learning goals	516	1	5	3,80	1,133
C9 I set the priorities of my learning	516	1	5	3,89	1,142
C10 Whether in the clinical practicum, classroom or on my own, I am able to follow my own plan of learn	516	1	5	3,75	1,110
C11 I am good at arranging and controlling my learning time	516	1	5	3,52	1,151
C12 I know how to find resources for my learning	516	1	5	3,63	1,106
Questions C13 – C16 refer to self-monitoring of learning					
C13 I can connect new knowledge with my own personal experiences	516	1	5	3,76	1,151
C14 I understand the strength and weakness of my learning	516	1	5	3,83	1,153
C15 I can monitor my learning progress	516	1	5	3,72	1,124
C16 I can evaluate on my own my learning outcomes	516	1	5	3,67	1,141
Questions C17 – C20 refer to interpersonal communication					
C17 My interaction with others helps me plan for further learning	516	1	5	3,80	1,188
C18 I would like to learn the language and culture of those whom I frequently interact with	516	1	5	3,99	1,159
C19 I am able to express messages effectively in oral presentation	516	1	5	3,62	1,181
C20 I am able to communicate messages effectively in writing	516	1	5	3,88	1,185

As shown in Table 4.4, only respondents *(n=242)* who participated in ECAs at TUT completed questions B1 - B12. The highest mean was reported for question B10 (mean=4.13, SD=1.26), indicating that respondents on average agreed that their involvement in ECAs helped their self-esteem. The lowest mean was reported for question B7 (mean=3.48, SD=1.12), indicating that respondents neither agree nor disagree that their involvement is helping them improve their marks but is evident that with a mean of 3.48, they were leaning towards agreeing with the statement. Therefore, this indicates that respondents' perceptions regarding the effect of ECAs on their academic achievement were broadly positive.

Furthermore, as depicted in Table 4.4, all students *(n=516)* comprising students who were involved in ECAs offered at TUT and those who did not participate completed questions C1–C20 on SDL. The highest mean was reported for question C3 (mean=4.21, SD=1.172), indicating that respondents on average agreed that they strongly hoped to continuously improve and excel in their learning. The lowest mean was reported for question C11 (mean=3.52, SD=1.151), indicating that respondents neither agreed nor disagreed, leaning towards agreeing that they are good at arranging and controlling their learning time. This shows that respondents' thoughts on their SDL abilities were generally positive. That said, it is essential to note that students' perceptions, in general, show that students agree that SDL strengthens their learning motivation, planning and implementation of learning, self-monitoring, and interpersonal communication. No students disagreed, strongly disagreed or strongly agreed to the SDL domains.

4.2.3 Factor analysis results

Factor analysis is “a way to take a mass of data and shrink it to a smaller set that is more manageable and more understandable” (Stephanie, 2014a:1). In this study, *confirmatory factor analysis* was done using Analysis of Moment Structure (AMOS) since the study makes use of a well-established and thoroughly tested questionnaire. Therefore, an analysis was done to test whether the theoretical structure fits the data. According to Barnidge and De Zúñiga (2017:1), AMOS is a “statistics module designed for the analysis of covariance structure models, including structural equation modelling (SEM), path analysis, and confirmatory factor analysis (CFA).” In

this study, Principal Factoring Components were used as the extraction method and the Direct Oblimin rotation methods were used. According to Jackson (2017:1), Direct Oblimin rotation is “a general form for obtaining oblique rotations used to transform vectors associated with principal component analysis or factor analysis to a *simple structure*." Field (2009:1), indicates the Kaizer-Meyer-Olkin (KMO) measure is used to test for sample adequacy and that values above 0.7 indicate acceptable sample adequacy. A value of 0.5 is barely acceptable but can be used in the early stages of research. Thus the reported value of 0.744 for the Motivation factor and 0.881 for the Self-Monitoring factor indicates that the sample size was indeed sufficient to perform factor analyses on the data for these specific factors. The KMO of 0.500 for the Planning and Implementation factor is also acceptable since this is a newly developed questionnaire.

4.2.3.1 Confirmatory Factor Analysis

Confirmatory factor analysis (CFA) “is a statistical technique used to verify the factor structure of a set of observed” (Suhr, n.d:1). CFA allows the researcher to test whether there is a relationship between observed variables and their underlying constructs. The researcher relies on prior knowledge of the theory and then uses statistical tests to test their hypothesis.

a) Regression Weights

If $p < 0.05$ (or *** as this means smaller than 0.001), the coefficient of the variable is not equal to 0 and therefore the variable does contribute significantly to the model. Table 4.6 illustrates the weight of each variable. Beers and Westfall (2020) state that "the p-value is used as an alternative to rejection points to provide the smallest level of significance at which the null hypothesis would be rejected. A smaller p-value means that there is stronger evidence in favour of the alternative hypothesis."

Table 4. 5 Regression Weights: (Group number 1- default model)

		SDL Domains	Estimate	S.E[4].	C.R.[5]	P[6]	Label[7]
C1	<---	LMot[8]	1,000				
C2	<---	LMot	1,125	,051	21,895	***	
C3	<---	LMot	1,236	,052	23,807	***	
C4	<---	LMot	1,270	,052	24,212	***	
C5	<---	LMot	1,176	,052	22,671	***	
C6	<---	LMot	1,229	,053	23,283	***	
C7	<---	PandI[9]	1,000				
C8	<---	PandI	,969	,033	29,166	***	
C9	<---	PandI	1,029	,031	33,149	***	
C10	<---	PandI	,912	,034	26,707	***	
C11	<---	PandI	,885	,038	23,506	***	
C12	<---	PandI	,870	,035	24,528	***	
C13	<---	SM[10]	1,000				
C14	<---	SM	1,025	,036	28,325	***	
C15	<---	SM	,991	,036	27,851	***	
C16	<---	SM	,999	,036	27,453	***	
C17	<---	IC[11]	1,000				
C18	<---	IC	1,012	,040	25,116	***	
C19	<---	IC	,897	,044	20,200	***	
C20	<---	IC	1,039	,041	25,310	***	

The results in Table 4.5 indicate that all the p-values were smaller than 0.5, and thus, all the variables contribute significantly towards the model.

b) Correlations Analysis (C.A.)

Correlations analysis indicates the practical significance of relationships between the factors. Franzese and Luliano (2019:706) contend that correlation analysis is the process of examining and assessing how strongly variables are related to one another, as shown in Table 4.6. For this study, guideline values were:

[4] It stands for standard error

[5] Composite reliability

[6] P-Value

[7] Is a category which a records that predict modelling falls

[8] Stands for Learning Motivation

[9] Stands for Planning and Implementation

[10] Stands for Self-Monitoring

[11] Stands for Interpersonal Communication

~0.1, small, no significant practical relationship

~0.3, medium, practical visible relationship

~0.5, large, practical significant relationship

Table 4. 6 Summary of correlation between factors

Factors			**Estimate**
Mot	<-->	SM	,883
IC	<-->	Mot	,917
Mot	<-->	PandI	,931
IC	<-->	SM	,949
PandI	<-->	SM	,948
IC	<-->	PandI	,918

As depicted in Table 4.6, all the correlations between the factors were practically significant, as the reported values ranged between 0.883 – 0.949.

4.2.3.2 Reliability analysis of the factor

The interpretation was based on the Cronbach's Alpha value of each factor to measure the reliability or internal consistency of multiple scores. Stephanie (2014b:1) confirms that Cronbach's Alpha is applied in testing the reliability of the multiple-question Likert scale survey. The reliability analysis results are presented in Table 4.7 below, showing the Cronbach's Alpha values of the factors relating to students' view of the relationship between ECA participation and academic achievement (i.e., Section B questions). The reliability analysis results are also presented in Table 4.8, showing the Cronbach's Alpha values for the four domains of SDL (i.e., Section C questions).

Table 4. 7 A summary of the Cronbach's Alpha values on ECAs factors

ECAs Factors[12]	Statements	Cronbach's Alpha	Mean	SD
Learning Motivation	**B1** Extracurricular activities create valuable study time, **B3** My involvement in extracurricular activities motivate me to do my academic work, **B8** Based on my experience I can recommend involvement in Extracurricular activities to fellow students.	0,90	3,85	1,09
Planning and Implementation	**B2** I am able to plan my time for extracurricular activities and that of my academic activities, **B12** My participation in extracurricular activities results in me an enhanced learning strategies.	0,88	3,90	1,14
Self-monitoring	**B4** I balance my schoolwork and my involvement in extracurricular activities, **B5** I attend classes even when there are extracurricular activity drives, **B7** My involvement in extracurricular activities results in me getting higher marks, **B9** My participation in extracurricular activities results in me attending class regularly, **B10** My involvement in extracurricular activities helps me improve my self-esteem, **B11** My participation in extracurricular activities results in me refraining from risk behaviour that can distract me from focusing on my academic work.	0,93	3,82	1,02
Interpersonal communication	**B6** My involvement in extracurricular activities results in me feeling at home at TUT.	n/a	4,09	1,24

[12] The ECAs factors were grouped in line with the SDL domains to enhance the understanding of how ECA participation influences students' academic achievement.

Table 4.7 reflects that all the reported Cronbach's Alpha values were above the guideline value of 0.7, which indicates that the resulting factors are reliable. The means ranged between 3.82 (SD=1.02) - 4.09 (SD=1.24), indicating that respondents, on average, agreed with the statements within these factors. This reflects that the respondents' perceptions regarding the impact of ECAs on their academic achievement were overall positive.

Table 4. 8 A summary of the Cronbach's Alpha values on SDL domains

SDL Domains	SDL Statements	Cronbach's Alpha	Mean	SD
Learning Motivation	**C1** I know what I need to learn, **C2** Regardless of the results or effectiveness of my learning, I still like learning, **C3** I strongly hope to constantly improve and excel in my learning, **C4** My successes and failures inspire me to continue learning, **C5** I enjoy finding answers to questions, **C6** I will not give up learning because I face some difficulties.	0,95	4.04	1.05
Planning and Implementation	**C7** I can pro-actively establish my learning goals, **C8** I know what learning strategies are appropriate for me in searching my learning goals, **C9** I set the priorities of my learning, **C10** Whether in the clinical practicum, classroom or on my own, I am able to follow my own plan of learn, **C11** I am good at arranging and controlling my learning time, **C12** I know how to find resources for my learning.	0,94	3,80	0.99
Self-monitoring	**C13** I can connect new knowledge with my own personal experiences, **C14** I understand the strength and weakness of my learning, **C15** I can monitor my learning progress, **C16** I can evaluate on my own my learning outcomes.	0,93	3,74	1.038
Interpersonal communication	**C17** My interaction with others helps me plan for further learning, **C18** I would like to learn the language and culture of those whom i frequently interact with, **C19** I am able to express messages effectively in oral presentation, **C20** I am able to communicate messages effectively in writing.	0.90	3.82	1.035

Table 4.8 indicates that all the reported Cronbach's Alpha values were above the guideline value of 0.7, which indicates that the SDL domains are reliable. The means ranged between 4.04 (SD=1.05) – 3.80 (SD=1.035), indicating that respondents on average agreed with the statements within the SDL domains. Results on Table 4.8 show that the Cronbach's Alpha value was higher than 0.7. Therefore, it can be concluded that the Likert scale questions on Sections C were well created, thus measuring the students' thoughts on SDL. The results in Table 4.8 also suggest that the respondents' thoughts on the SDL were generally positive.

4.2.3.3 Descriptive statistics of the resulting factors

In this section, as stated by May (2017:1), the researcher quantifies and describes the basic characteristics data regarding the student's perceptions of the influence of ECA participation on their academic performance and their thoughts about SDL. Table 4.9 summarises these data by comparing the mean and the standard deviation.

Table 4. 9 Summary of descriptive statistics of the resulting factors

ECAs Factors[13] (Section B) and SDL Domains (Section C)	N	Minimum	Maximum	Mean	Std. Deviation
Sec B Learning Motivation	242	1,00	5,00	3,8526	1,09099
Sec B Planning & Implementation	242	1,00	5,00	3,9029	1,13592
Sec B Self-Monitoring	242	1,00	5,00	3,8223	1,02014
Sec B Interpersonal Communication	242	1,00	5,00	4,0868	1,24103
Sec C Learning Motivation	516	1,00	5,00	4,0355	1,04877
Sec C Planning & Implementation	516	1,00	5,00	3,7597	0,98935
Sec C Self-Monitoring	516	1,00	5,00	3,7447	1,03757
Sec C Interpersonal Communication	516	1,00	5,00	3,8217	1,03445

As shown in Table 4.9, the means of the responses on ECAs participation factors ranged between 4.0868 (SD=1.24103) - 3.8526 (SD=1.09099), indicating that respondents on average agreed that ECAs had a positive influence on their academic achievement. The SDL responses' means ranged from 4.0355

[13] The ECAs factors were grouped in line with the SDL domains to enhance the understanding of how ECA participation influences students' academic achievement.

(SD=1.04877) to 3.7447 (SD=1.03757), suggesting that respondents' perceptions of SDL were overall positive. This reflects that the respondents' perceptions regarding the impact of ECAs on their academic achievement and SDL were overall positive.

4.2.4 T-test groups (Question 4 of section A)

In this section, as recommended by Bevans (2020:1), the researcher used a t-test to compare the means of two groups of students at TUT, i.e., the commuting and the residential students, and determined whether ECAs participation at TUT affected students' achievement and their SDL. Furthermore, the researcher used a t-test to compare the means of the experimental group (students who participated in ECAs at TUT) and control group (students who did not participate) regarding the SDL responses. In this study, the values indicate the significant practical differences between the means as well as the effect sizes:

≈ 0.2 Small, No practically significant difference

≈ 0.5 Medium, Practically visible difference

≈ 0.8 Large, Practically significant difference

Since the study did not have a random sample, the p-values were reported solely for the sake of “completeness” but will not be interpreted since a convenience sample was used instead of a random sample. In this regard, interpretation was based on the effect size, as shown in Table 4.10 and Table 4.11 below.

Table 4. 10 T-test for the commute and the resident students

ECAS Factors[14] (Section B) and the SDL Domains (Section C)	Groups	N	Mean	Std. Deviation	Sig. (2-tailed)	Effect size
Sec B: Learning Motivation	Resident	145	3.7816	1.,13609	0,216	0.,16
	Commute	97	3.,9588	1.,01637	0,207	
Sec B: Planning & Implementation	Resident	145	3.,8034	1.,16264	0.,096	0.21
	Commute	97	4.0515	1.08370	0.092	
Sec B: Self- Monitoring	Resident	145	3.7517	1.07262	0.189	0.16
	Commute	97	3.9278	0.93167	0.177	
Sec B: Interpersonal Communication	Resident	145	4.0483	1.29813	0.556	0.07
	Commute	97	4.1443	1.15461	0.547	
Sec C: Learning Motivation	Resident	295	4.0853	1.03800	0.213	0.11
	Commute	221	3.9691	1.06169	0.215	
Sec C: Planning & Implementation	Resident	295	3.7695	0.98139	0.795	0.02
	Commute	221	3.7466	1.00197	0.796	
Sec C: Self- Monitoring	Resident	295	3.7508	1.03623	0.06033	0.16
	Commute	221	3.7364	1.04165	0.07007	
Sec C: Interpersonal Communication	Resident	295	3.8263	1.02213	0.05951	0.21

[14] The ECAs factors were grouped in line with the SDL domains to enhance the understanding of how ECA participation at TUT influences students' academic achievement.

Table 4.10 indicates that, based on the reported effect size, there were only small or practically insignificant differences in the mean of the respondents who commute vs. those who stay at a TUT residence with regard to their perceptions of the effect of ECAs at TUT on academic performance and their SDL. For example, the means of commute students regarding the effect of ECAs participation at TUT on their academic achievement ranged from 4.0515 to 3.7517, on the one hand. On the other hand, the means of commute students regarding SDL ranged between 3.9691 – 3.7364, while the means of the residential students ranged between 4.0853 and 3.7508. The effect of the size of both groups, is larger than 0.8, suggesting a practically significant difference in the mean of the two groups.

Table 4. 11 T-test for the experimental and control group on SDL

SDL Domains	Groups	N	Mean	Std. Deviation	Std. Error Mean	Effect size
Sec C: Learning Motivation	Participated in ECAs at TUT	242	4,1336	1,05215	0,06763	0,18
	Not participated in ECAs at TUT	274	3,9489	1,04001	0,06283	
Sec C: Planning & Implementation	Participated in ECAs at TUT	242	3,9408	1,01086	0,06498	0,34
	Not participated in ECAs at TUT	274	3,5998	0,94323	0,05698	
Sec C: Self- Monitoring	Participated in ECAs at TUT	242	3,9329	1,05004	0,06750	0,34
	Not participated in ECAs at TUT	274	3,5785	0,99920	0,06036	
Sec C: Interpersonal Communication	Participated in ECAs at TUT	242	3,9638	1,07739	0,06926	0,25
	Not participated in ECAs at TUT	274	3,6962	0,97991	0,05920	

Table 11 compares the means of the students who participated in ECAs offered at TUT (experimental group) and students who did not participate (the control group) to investigate the perceived influence of participation in ECAs on students' SDL. (It is acknowledged that there are many factors, apart from ECA participation, that might affect SDL, as will be discussed in the CHAT analysis later in this chapter 4). It should be noticed that there are 242 students that participated in ECAs at TUT whose responses to Cheng's SDL questions (see APPENDIX A) are compared to 274 students that did not participate. The mean scores for the experimental group ranged from 4.13 (SD=1.05) to 3.93 (SD=1.05), indicating their perceptions of the influence of ECAs on SDL were overall positive. The mean scores of control group ranged from 3.94 (SD=1.04) to 3.57 (SD=0.99), indicating that respondents' SDL scores were also positive. It is clear from Table 11 that there is a difference between mean scores of the experimental group and control group on the SDL domains. Table 11 shows that the mean scores of the experimental group were slightly higher than that of the control group. As indicated in Table 11, the mean score of the experimental group was 4.13 (SD=1.052) on the learning motivation domain of the SDL while the control group had the mean score of 3,94 (SD=1.040). The mean score of the experimental group was 3.94 (SD=1.01) on the planning and motivation domain of the SDL while the control group had the mean score of 3.59 (SD=0.94). The mean score of the experimental group was 3.93 (SD=1.05) on self-monitoring domain while the control group had the mean scores of 3,57 (SD=0.99). The mean score of the experimental group was 3.96 (SD=1.07) on the interpersonal communication domain of the SDL while the control group had the mean of 3,69 (SD=0.97). These small differences between the means show that there was no significantly practical difference between the means of the two groups on the domains of the SDL, namely learning motivation, planning and implementation, self-monitoring, and interpersonal communication.

4.2.5 One-way ANOVA and Welch's t-test

One-way results were presented in terms of One-way ANOVA and Welch's t-test. Bevans (2020a) describes One-way ANOVA as follows: "one-way ANOVA uses one independent variable and tells if the dependent variable changes according to the level of the independent variable. It is a statistical test used to analyse the difference between the means of more than two groups." According to Lu and Yuan (2010:1620), Welch's t-test is used to test the equality of two means from an independent population when the variances are not equal. Therefore, p-values were not interpreted as the study did not have a random sample. However, the p-values were reported in order to provide complete information but will not be interpreted since they were reported from a convenience sample. Furthermore, Debate, Drama and Street Poetry were grouped as "Other" for these analyses. Thus, the analyses were based on the effect sizes (see section 4.2.6 above).

Table 4. 12 A summary of one-way ANOVA and Welch t-test results showing effects size

ECAs Factors[15] (Section B) and the SDL Domains (Section C)	**Types of ECAs**	**N**	**Mean**	**Std. Deviation**	**Std. Error**	**95% Confidence Interval for Mean**	**Effect size**			
						Lower Bound	Choir	Peer Education	Soccer	Top Junior Leadership
Sec B Learning Motivation	Choir	21	3.21	1.54	0.022	0.092				
	Peer Education	91	4.05	0.94		0.016	0.55			
	Soccer	35	3.82	1.14		0.064	0.40	0.21		
	Top Jun Leader	69	3.87	1.09	0.001	0.093	0.43	0.17	0.04	
	Other	26	3.67	0.95		0.107	0.30	0.41	0.13	0.19
	Total	242	3.85	1.09		0.046				
Sec B Planning & Implementation	Choir	21	3.05	1.52	0.016	0.121				
	Peer Education	91	4.17	1.02		0.019	0.74			
	Soccer	35	3.76	1.13		0.092	0.47	0.36		
	Top Jun	69	3.84	1.13	0.034	0.016	0.52	0.29	0.07	

[15] The ECAs factors were grouped in line with the SDL domains to enhance the understanding of how ECA participation influences students' academic achievement.

	Leader									
	Other	26	4.02	0.83		0.064	0.64	0.15	0.23	0.16
	Total	242	3.90	1.14		0.093				
Sec B Self- Monitoring	Choir	21	3.23	1.39	0.024	0.107				
	Peer Education	91	4.03	0.89		0.046	0.57			
	Soccer	35	3.67	1.02		0.121	0.32	0.35		
	Top Jun Leader	69	3.76	1.08	0.015	0.019	0.38	0.24	0.09	
	Other	26	3.95	0.77		0.092	0.52	0.09	0.27	0.17
	Total	242	3.82	1.02		0.016				
Sec B Interpersonal Communication	Choir	21	3.48	1.75	0.065	0.064				
	Peer Education	91	4.31	1.08		0.093	0.48			
	Soccer	35	3.97	1.25		0.107	0.28	0.27		
	Top Jun Leader	69	3.94	1.26	0.007	0.046	0.27	0.29	0.02	
	Other	26	4.35	1.06		0.121	0.50	0.04	0.30	0.32
	Total	242	4.09	1.24		0.019				
Sec C Learning	Choir	21	3.54	1.60	0.022	0.092				

Motivation										
	Peer Education	91	4.34	0.82		0.016	0.50			
	Soccer	35	4.10	1.04		0.064	0.35	0.23		
	Top Jun Leader	69	4.03	1.14	0.001	0.093	0.31	0.27	0.06	
	Other	26	4.21	0.84		0.107	0.42	0.15	0.11	0.16
	Total	242	4.13	1.05		0.046				
Sec C Planning & Implementation	Choir	21	3.39	1.50	0.016	0.121				
	Peer Education	91	4.18	0.80		0.019	0.52			
	Soccer	35	3.91	1.03		0.092	0.35	0.26		
	Top Jun Leader	69	3.85	1.06	0.034	0.016	0.30	0.31	0.06	
	Other	26	3.85	0.86		0.064	0.30	0.38	0.07	0.00
	Total	242	3.94	1.01		0.093				
Sec C Self-Monitoring	Choir	21	3,4167	1,53161	0,33422	2,7195				
	Peer Education	91	4,1648	0,84510	0,08859	3,9888	0,49			
	Soccer	35	3,8929	0,95925	0,16214	3,5633	0,31	0,28		
	Top Jun	69	3,8406	1,12538	0,13548	3,5702	0,28	0,29	0,05	

	Leader									
	Other	26	3,8365	1,01475	0,19901	3,4267	0,27	0,32	0,06	0,00
	Total	242	3,9329	1,05004	0,06750	3,7999				
Sec C Interpersonal Communication	Choir	21	3,3810	1,63099	0,35591	2,6385				
	Peer Education	91	4,2225	0,80230	0,08410	4,0554	0,52			
	Soccer	35	3,8000	1,08092	0,18271	3,4287	0,26	0,39		
	Top Jun Leader	69	3,8877	1,12829	0,13583	3,6166	0,31	0,30	0,08	
	Other	26	3,9519	1,05361	0,20663	3,5264	0,35	0,26	0,14	0,06
	Total	242	3,9638	1,07739	0,06926	3,8274				

As shown in Table 4.12, the reported effect size shows a practically visible difference (d=0.55) between the means of the respondents involved in the Choir vs. those involved in Peer Education for the Motivation factor of the perceptions of ECAs and academic performance part of the questionnaire. The Choir group (mean=3.21, SD=1.54) on average neither agreed nor disagreed with the statements within this factor, indicating that they do not have a clear opinion regarding the effects of their ECAs on their Motivation. The Peer Education group (mean=4.05, SD=0.94), on average, agreed with the statements, indicating they thought that their involvement in the ECA had a positive effect on their Learning Motivation.

Furthermore, and the reported effect sizes, as illustrated in Table 4.12, shows that there are practically visible as well as practically significant differences between the means of the respondents involved in the Choir and those involved in Peer Education (d=0.74), Top Junior Leadership (d=0.52) and Others (d=0.64) for the Planning and Implementation factor of the perceptions on ECAs and the academic performance part of the questionnaire. The Choir group (mean=3.05, SD=1.52) on average neither agreed or disagreed with the statements within this factor, indicating that they did not have a clear opinion regarding the impact of their ECAs on their Planning and Implementation. The respondents involved in the Peer Education group (mean=4.17, SD=1.02), Top Junior Leadership (mean=3.84, SD=1.13) and Other ECAs (mean=4.02, SD=0.83) all on average agreed with the statements indicating that their involvement in their specific ECA had a positive contribution on their Planning and Implementation skills.

There are practically visible differences in the means of the respondents involved in the Peer Education (d=0.57) and those involved in Soccer (d=0.32), Top Junior Leadership (d=0.38) and Other ECAs (d=0.52) for the Self-Monitoring factor of the perceptions on ECAs and the academic performance part of the questionnaire. The Peer Education group (mean=4.03, SD=0.89) on average agree with the statements within the Self-Monitoring factor. The respondents involved in Choir (mean=3.23, SD=1.39), Soccer (mean=3.67, SD=1.02), Top Junior Leadership (mean=3.76, SD=1.08) and Other ECAs (mean=3.95, SD=0.77) all on average agreed with the statements indicating that their involvement in their specific ECAs at TUT had a positive contribution on Self-Monitoring in their learning.

There are practically visible differences between the means of the respondents involved in the Peer Education (d=0.48) and those involved in Soccer (d=0.28), Top Junior Leadership (d=0.27) and Other ECAs (d=0.50) for the Interpersonal Communication factor of the perceptions on ECAs and the academic performance part of the questionnaire. The Peer Education group (mean=4.31, SD=1.08) and Other ECAs (mean=4.35, SD=1.06) agree with the statements within this the Self-Monitoring factor. The respondents involved in Choir (mean=3.48, SD=1.75), Soccer (mean=3.95, SD=1.25), Top Junior Leadership (mean=3.94, SD=1.26) all on average agreed with the statements within this factor indicating that their involvement in their specific ECA at TUT had a positive impact on their Interpersonal Communication.

As depicted in Table 4.12 above, several aspects regarding SDL are visible:
There are practically visible differences between the means of the respondents involved in the Peer Education (d=0.50) and those involved in Soccer (d=0.35), Top Junior Leadership (d=0.31) and Other ECAs (d=0.42) for the Learning Motivation factor of the students on SDL. The Choir group (mean=3.54, SD=1.60), Peer Education group (mean=4.34, SD=0.82), Soccer (mean=4.10, SD=1.04), Top Junior Leadership (mean=4.03, SD=1.14) and Other ECAs (mean=4.21, SD=0.84) agreed with the statements within this factor indicating that Learning Motivation had a positive contribution on the development of their SDL skills.

There are practically visible differences between the means of the respondents involved in the Peer Education (d=0.52) and those involved in Soccer (d=0.35), Top Junior Leadership (d=0.30) and Other ECAs (d=0.30) for the Planning and Implementation domain. Peer Education group (mean=4.18, SD=0.80) Agreed that Planning and Implementation had a positive contribution on the development of their SDL skills. The Choir group (mean=3.39, SD=1.50), Soccer (mean=3.91, SD=1.03), Top Junior Leadership (mean=3.85, SD=1.06) and Other ECAs (mean=3.94, SD=1.01) on average agreed with the statements within this factor indicating that Learning and Implementation had a positive contribution on the development of their SDL skills.

There are practically visible differences between the means of the respondents involved in the Peer Education (d=0.49) and those involved in Soccer (d=0.31), Top Junior Leadership (d=0.28) and Other ECAs (d=0.27) for the Self-Monitoring domain. The Choir group (mean=3.4, SD=1.5), Peer Education group (mean=4.1, SD=0.8), Soccer (mean=3.8, SD=0.9), Top Junior Leadership (mean=3.8, SD=1.12) and Other ECAs (mean=3.3, SD=1.6) on average agreed with the statements within this factor indicating that Self-Monitoring had a positive contribution on the development of their SDL skills

There are practically visible differences between the means of the respondents involved in the Peer Education (d=0.52) and those involved in Soccer (d=0.26), Top Junior Leadership (d=0.31) and Other ECAs (d=0.35) for the Interpersonal Communication domain. Peer Education group (mean=4.2, SD=0.08) Agreed that Interpersonal Communication had a positive impact on their SDL. The Soccer (mean=3.8, SD=1.08), Top Junior Leadership (mean=3.88, SD=1.12) and Other ECAs (mean=3.95, SD=1.05) on average Agreed with the statements within this factor indicating that Interpersonal Communication had a positive impact on their SDL. However, the Choir group (mean=3.38, SD=1.63) neither agree nor disagree with the statement of Interpersonal Communication.

4.3 CONCLUSION

The quantitative data analysis results showed interesting trends and some correlations between participation in ECAs at TUT and enhancement of learning opportunities. Responses indicate that students can fulfil the four SDL domains, namely Learning Motivation, Planning and Implementation, Self-Monitoring and Interpersonal Communication. It is further necessary to note that, in terms of SDL items, there was no difference between the responses of the experimental group (students participating in ECAs at TUT) and the control group (those that did not participate in ECAs offered by TUT). The next section presents qualitative data analysis results.

4.4 QUALITATIVE DATA ANALYSIS AND PRESENTATION

"The balance between staying close to the data and thinking abstractly and conceptually",
(Padgett, 2014:2)

Data analyses were done by drawing inferences from the responses of the interview respondents. Furthermore, the researcher highlighted and commented on the emergent themes from the analysis, and comments were made with the most relevant and important experts from the participants' responses (Morley, 2014b:23).

4.4.1 Data analysis

Individual semi-structured telephone interviews (due to the COVID-19 pandemic) were conducted with a sample (*n=27*) of participants drawn from the quantitative phase of this study (see Table 4.16). As stated earlier on, a sample (*n=3*) from each ECAs category and a sample (*n=6*) from students not participating in ECAs were interviewed with the view of probing their quantitative responses. In analysing the interview results, the interview data was manually coded by labelling the sections of transcribed text that related to the research questions with a code word(s) and/or phrases that defined their content and meaning. Identified codes were grouped into subthemes, which were then fitted together and filtered into themes. Inductive coding was used since the codes and themes emerged directly from the data itself (cf. Burnard, Gill, Stewart, Treasure and Chadwick, 2008:428). To that end, I employed Saldana's coding technique to construct codes, subthemes (categories), and themes (see Saldana, 2009:12). In doing so, words, sections, phrases, or sentences were labelled by linking data to the concepts and/or ideas to generate codes. After the initial coding, important codes were merged according to similarity and regularity (a pattern) to generate subthemes. Kawulich (2004:1) refers to this kind of analysis as a constant comparative analysis of data by assigning codes that reflect various subthemes. Finally, subthemes, sharing the same characteristics were merged and combined to generate themes to elicit the research participants' experiences or perceptions and enable research question(s) to be answered (see Vaismoradi et al., 2016). In brief, the researcher analysed data by carefully reading the interview

transcripts, generating codes, and subthemes were summarised or reduced to a series of themes. The analysis was further done by using the Cultural Historical Activity Theory (CHAT) as a research lens. Table 4.13 shows the list of participants for the qualitative phase of this study. It is important to note that the researcher assigned each participant a pseudonym to maintain participants' confidentiality.

Table 4. 13 Participants list by pseudonyms

ECAs Participants		**ECAs none participants**	
	List of ECAs	**DID NOT PARTICIPATE IN ECAs**	Mrs. S
Miss Book Cover	Choir		
Mr. Hang On			Mr. SM
Miss Call Me			
Mr. Jumping	Debate		
Mr. Dance			Mrs. U
Ms. Fruits			
Miss Shining Star	Drama		
Mr. Get On			Miss X
Mr. Smile			
Mr. Swift	Peer education		
Miss Work			Mrs. Y
Miss Harvest			
Miss Spoon	Soccer		
Mr. Fast Mode			Mr. ZZ
Mr. Around			
Mr. Nice	Street poetry		
Mr. Swim Above			
Ms. Ready Made			
Miss Talk	Top junior leadership programme		
Miss Zoom			
Miss Voice			

Source: compiled by the researcher

As shown in Table 4.13, interviews were conducted with 27 students (100%) of which 21 students (78%) represented those that participated in ECAs at TUT and 6 (22%) from the group that did not.

4.4.2 Data Presentation

The researcher divided the qualitative data analysis results into four identified themes arising from the interview narratives, as shown in tables 4.14 to 4.20 below.

Table 4. 14 Theme 1: ECAs provide affordances such as a sense of belonging and the development of soft skills

Codes	Sub-themes	Theme
Engagement Proximity Meeting new people Skills development Leadership development Talent development Interest Passion Fun Learning from others Part of the group Stay active Desire to boosting confidence	• **Enabling Factors** ○ Belongingness ○ Socialisation ○ Soft skills development opportunities	ECAs provide affordances such as a sense of belonging and the development of soft skills

Source: Compiled by the researcher.

Table 4. 15 Theme 2: Factors, such as time issues, workload, and lack of information might provide barriers to participation in the ECAs

Codes	Sub-themes	Theme
Engagement Joining criteria Interest Lack of information Time Rules Timing	• **Barriers to participation** ○ Lack of Information ○ Tight schedule ○ Lack of interest	Factors, such as time issues, workload, and lack of information might provide barriers to participation in the ECAs

Source: Compiled by the researcher.

Table 4. 16 Theme 3: Participation in ECAs might provide the opportunity to network and to improve time management which could result in improved academic achievement

Codes	Sub-themes	Theme
Student Grade Points Reflecting on past experiences Student academic performance monitored. Learning strategy Visit library Stress-free Relaxing Use the internet Study timetable	• **Positive impacts** ○ Time management ○ Participation requirements ○ Networking ○ A sense of well being ○ Academic excellence	Participation in ECAs might provide the opportunity to network and to improve time management which could result in improved academic achievement

Assessment Prioritise Managing time Knowing the purpose Ability to Envisage challenges Top academic performer Able to address detractors Fulfilled student Setting goals Good communication Study approach Able to plan Students' Intrinsic motivation Good technology Access to learning resources Students' extrinsic motivation Self-introspection and evaluation skills Focus Networking		

Source: compiled by the researcher.

Table 4. 17 Theme 4: ECAs add pressure to students' time schedules

Codes	Sub-themes	Theme
Top academic performer detractors Pressed scheduled Work schedule Not enough study time Exhausting Lot of work	• **Negative impacts** ○ Conflicting schedule ○ Too much workload	ECAs add pressure to students' time schedules

Source: compiled by the researcher.

Table 4. 18 Theme 5: Some students hold the opinion that ECAs have no impact on learning and academic performance

Codes	Sub-themes	Theme
Not relationship Schoolwork is school work Does not affect studies	• **No impact**	Some students hold the opinion that ECAs have no impact on learning and academic performance

Source: compiled by the researcher.

Table 4. 19 Theme 6: Some students hold the views that ECAs should be managed to ensure fairness in the selection control, resource allocation and student motivation

Codes	Sub-themes	Themes
Lack of safety measures Recruitment Fairness in the selection	• **ECAs Facilitators/Coordinators/couches** ○ Recruitment strategies and awareness ○ Regulate and supervise	Some students hold the views that ECAs should be managed to ensure fairness in the selection, supervision, resource allocation, and

procedure Lack of control planning No monitoring ECAs timing Equal consideration of all ECAs Motivation Advocacy Uniform Facilities	○ Resources allocation ○ Motivation	student motivation

Source: Compiled by the researcher.

Table 4. 20 Theme 7: Students' self-directed learning is affected by participation in ECAs

Codes	Subthemes	Themes
Identify learning needs Obtain relevant learning resources Attending classes Reading Studying School-life balance Role model Attending ECAs sessions Learning style	• Time management • Learning resources • Goal setting • Monitoring and assessment • Community of practice • Initiate learning	Students' self-directed learning is affected by participation in ECAs

Using cell phone Individual study Need others to learn Revising previous work Remain up to date Able to solve learning problems Procrastination Able to learn online Cope with learning stress Master what they have learned Learning from others Building good relationships Self-confidence Discipline Personal responsibility Collective responsibility Monitor academic progress Able to reflect of their academic achievements Caring about others Out of classroom experiences Decisiveness		

Manage time effectively Desire for success Making notes		

Source: Compiled by the researcher

Tables 13–20 share three characteristics, namely codes, subthemes, and themes. However, each table has distinct theme that arose after I analysed the interview transcripts and assigned codes. I have done so such that I could describe the content in each table and the search patterns in the codes. Braun and Clarke (2006:78) defined a code as a succinct summary (and not an interpretation) of what is said during an interview. Wong (2008:16) concurred that coding is the most critical stage of the qualitative data analysis method because it enables researchers to establish a label for assigning identified topics from compiled data. As a result, I identified the themes as shown in Tables 13-20. The next section contains a full description of the themes and subthemes.

4.5 DISCUSSION OF THE THEMES AND SUBTHEMES

In this section, as is always the case when interpreting qualitative data analysis findings (cf. Braun & Clarke, 2006: 92), the meaning, as well as the crux of what each theme denotes, will be presented. Therefore, the researcher interpreted the qualitative data analysis to assign meaning to the data and determine the significance of the data and its implications (Lebied, 2018). As stated by Vaismoradi, Jones, Turunen, and Snelgrove (2016:106), theme indicates the aspects of data covered on the results of the study. This section also focuses on explaining the relationship between the subthemes and the main themes. In doing so, the researcher compared interview responses mainly by using respondents' verbatim quotations. Corden and Sainsbury (2006:11) agree that including verbatim quotes when presenting the qualitative research findings serves as evidence, as an explanation, as an illustration deepens understanding; gives participants a voice, and

enhances the readability of the results. The researcher used pseudonyms when writing findings to preserve the research participants' confidentiality.

4.5.1 Theme 1: ECAs provide affordances such as a sense of belonging and the development of soft skills

This theme answers the *research question relating to the factors that motivate students to participate in ECAs at TUT*. Several factors were reported to be central to students' participation in ECAs. For those respondents that participated in ECAs at TUT, the issues relating to participation were found to be influenced by certain *enabling factors.*

4.5.1.1 Enabling Factors

The first issue concerning participation in ECAs is the *enabling factors.* The students indicated various factors behind their involvement in ECAs at TUT, and they were grouped under the following headings of *belonging, socialisation,* and *soft skills development opportunities*.

- Belonging

The participants were consistent about the need to belong as one of the factors enabling them to participate in various ECAs. The findings revealed that participants joined the ECAs to be part of the TUT community through certain and recognised structures. The majority of the participants' views indicated that being part of the ECAs made them feel welcome, accepted, supported, and connected to the students and/ or ECA teams as well as to staff members. This sense of belonging allowed them to also respond with pride to anything that boosted the university's brand. Students tended to join the ECAs that had a good reputation in terms of their accomplishments. For example, Miss Spoon mentioned: *"Students join soccer clubs at TUT because they are currently one of the winning teams in the varsity league. They are highly rated with the tournament, and they go there. They perform, they show up, they usually finish in position one or position two*." Some participants indicated that they joined the ECAs that connected with what they like most, as part of their hobbies or something they do outside the realm of teaching and learning. In

this regard, one of the participants who joined the poetry club stated: *"So, I am a writer and I am a performer as well…"* Ms. Ready Made.

In a similar vein, other students mentioned that their love of the specific ECA influenced their joining the soccer club at TUT. They saw it necessary to belong to a particular ECA they liked most and they had previously been part of varsity post-secondary education. The best illustration was the view expressed by Mr. Fast Mode, who acknowledged: *"The reason I joined the soccer team was that I have been playing soccer for a long time and to me, soccer is no longer is no longer just a sport…"*

Mr. Smile also stated: *"Oh, it was a passion in the sense that I fell in love with acting when I was first got on stage. And I came to TUT and I got the chance to perform on stage using the TUT platform. Then I fell in love with drama and that way so I actually love to act. Eh, I love acting eh and yeah, I have a passion for it."*

Another participant, Mr. Swim Above, mentioned that he joined poetry to associate himself with people that he regards as the voice of the voiceless. For him, poetry communicates messages that address people's feelings and thoughts and help them to fit into society. Also, he pointed out that his joining ECAs was influenced by the fact that that activity is offered at the campus that is close to him. He commented in this regard:

"I actually joined that poetry club from Arts campus because Arts campus is closer to my campus, Arcadia. Uh, because of poetry, people start to realise that people are not aware of a lot of things. And poetry people, I consider them to be conscious people you know. They send a message out to people. They are, they are more like a voice to the voiceless you know. …So, in my opinion, I got eh hooked on to those messages that I hear every time I attend the poetry session so much that I wanted to be a part of that group. Eh, I remember they used to do those poetry sessions every Thursday at Arts."

- Socialisation

Almost all participants who participated in ECAs agreed that their participation was influenced by the need to socialise with other students. This social aspect allowed students to meet new students and engage socially outside the lecture room. Their social interaction aspects were found to be important in creating good relationships among themselves and between students and staff members. So, once students socialise, they learned good behaviour and also a greater appreciation for the value of cultural diversity, thus enabling students to accept, recognise, and respect each other. Mr. Nice felt in this regard that: "*I was a writer, a poet before I got into university so when I got to university I was told about the poetry society. I decided to go and eh when I went there it was since I was new to the university it was a way for me to make sort of friends. So like I belong in something and they accept me there."* Miss. Fruits added: *"In terms of social skills, it also helped because err when you're doing ECAs, you interact with a lot of people outside of your academic space, so then you get to learn other languages and to learn about other people's cultures and background."*

- Soft skills development opportunities

Throughout the interviews with the ECA participants, the desire to develop personal attributes that would help students interact with others effectively and peacefully remained one of the pulling factors. Almost all the participants indicated a wish to acquire these kinds of skills, which include public speaking skills, as they join the ECAs. The following response demonstrates this:

> *"…on your first year, you become a junior. Then the second year that's when you become a facilitator. But firstly when I was a first-year, the first thing that I did was community outreach where it gives you a chance to speak to different people that you do not have an idea of. …and on my first year I was in top ntombozana dealing with woman stuff so basically, everything that had to do with going out speaking and interacting with people that uh played a part in me having to join ECAs,"* Miss Talk.

Furthermore, as stated by Mr. Get On, the students' involvement in ECAs was influenced by the willingness of students to have an active life: "*…You know it is*

outside activities that make a student you know, for one to be able to handle eh the all university life because at the end of the day the university is not just about going to school and opening a book you know. Even living the university life counts."

In addition, Ms. Ready Made commented: "*I was part of the leadership committee of organising all that. I am able to perform, write and be able to nurture my management skills."*

Mr. Jumping emphasised that students joined ECAs because of their need to improve public speaking skills through debate sessions. He stated: *"Mostly it is, you know, err, they find favour in politics so that is how they express themselves in public speaking. …Uh, I am interested and take inspiration from politicians so that's the reason why I joined debate…*"

In the same vein, Ms. Fruits commented: *"So it would be a presentation, umm presentation skills in terms of presenting word, PowerPoints umm or any presentation at school, it's the confidence that comes with that, there is better communication that one can then have."*

4.5.2. Theme 2: Factors such as time issues, workload, and a lack of information might provide barriers to participation in the ECAs

Several students who did not participate in ECAs, reported certain factors preventing them from participating in ECAs.

4.5.2.1 Barriers to participation

The findings from the interviews with the non-participating students were both inconsistent with and added to previous literature regarding factors that prevented students from participating in ECAs. The students who were not part of the ECAs referred to the lack of information, tight schedule, lack of interest, and financial constraints as the relevant factors preventing from participation.

When students were asked during the telephone interviews why they did not participate in the ECAs at TUT, they indicated that they did not know how to join ECAs. Lack of information regarding participation in ECAs is an area of concern. For example, Ms. U indicated, *"…there wasn't much information about ECAs…"* In the same vein, Mr. ZZ commented: *"I am here every day, but these people don't even come and just to meet us to tell us that there is this activity and this is how all is about, how I can benefit and how I can be part."*

Realising that there were students participating in ECAs, the researcher asked why some students were participating while others were not. There was a need to probe further because if there were no information about the ECAs offered at TUT, no one would participate. Findings revealed that information on the ECAs might be available to limited students. In this regard, Mr. SS remarked: *"Err, mainly I would say for a person like me it is not as inclusive as it could. I don't have such information. Maybe next year, they will let us know. But for now, some of us knows nothing I tell you."*

The most interesting finding for the researcher was Mr. Get On, who participated in the ECAs, who indicated that there was a lack of information regarding ECAs participation issues. He stated: *"I know because I have been at TUT for a while. I have been here for a while. So a lot of people don't know about these things, you know. I think a little bit of improvement can be done."* This means that for students attending TUT for the first time, acquiring knowledge on how to join ECAs is sometimes not a simple exercise.

- Tight schedule

The findings reveal that some students choose not to participate in ECAs because of the tight academic schedule. In this regard, Miss X stated that "*Eh, it is because I had a lot of assignments and school work. So, I couldn't participate in some of the stuff"* and Ms. U made a surprising remark: *"…I just want to go to school and come back. I used to be a very active child and it use to take up a lot of my time. When I went to university, I was like I'm not going to do that. I just want to be a normal person. Just go to school, do what I have to do and come back home."* These remarks contradict her initial response regarding barriers to ECAs participation.

Firstly, Ms. U indicated that she did not have information about the ECAs at TUT but now she says she is not participating in ECAs because she does not want to. This suggests that lack of participation could have been partly or either her choice or a lack of information.

Furthermore, findings show that students are very committed to other personal issues that take much of their time so that they could not slot ECAs into their schedules. The following quotation represents this: *"Umm, well, at this moment, I do not have time. Actually, umm I'm working, I'm studying at the same time and married. (Laughs) So I don't have time, actually."*

- Lack of interest

From the responses of the students who did not participate in ECAs, it is evident that some students did not participate because they were not interested. In this regard, Mrs. S proclaimed, *"Eh, the reason is that this thing is not in me. I actually eh not interested, I am not…"* Mr. ZZ also commented: *"...to be honest, I lost interest. I don't participate."*

- Financial constraints

Some participants felt that students could not participate in ECAs because certain ECAs require students to pay. The issue was well illustrated when respondents indicated that students were required to pay specific fees when the Choir participated in competitions. Ms. Ready Made proclaimed: *"…certain barriers that did not allow the students to either go or enter the regional competitions because of budget. You cannot expect the student to pay for herself because the students do not have money…"*

4.5.3 Theme 3: Participation in ECAs provides the opportunity to network and to improve time management resulting in improved academic achievement

Regarding this theme, the respondents gave answers relating *to the perceptions that TUT students have of their involvement in ECAs and the differences in students' views from different demographic groups regarding their participation in ECAs*. Throughout the interview data, the positive contributions of ECAs participation on students' academic achievement emerged.

4.5.3.1 Positive effects

Most of the participants from both groups (those who participated in ECAs at TUT and those who did not participate) reported a positive relationship between ECAs participation and students' academic achievement. The positive influence of ECAs on students' academic achievement is discussed under the following factors: time management, participation requirements, networking, academic excellence, and a relaxed mind.

- Time management

The findings showed that participation in ECAs benefited students so that they learned how to use time effectively and how to balance academic life and participation in ECAs. Most of the participants indicated that participation in ECAs yields time management skills. Among the comments cited were those by Miss Spoon, who commented, *"Yes, there is. There is a relationship because you are able to manage your time, your academics…"* and those by Mr. Ready Made, who said, *"Uhm, I would have to say that it helps you keep managing your time, your academia is exciting…"* Another participant spoke specifically on how participation in ECAs enabled students to balance their study time and ECAs, which created more opportunities to perform well in both areas: "*…they schedule a time for eh like choir practice and the school work. So we focus more on school work and then we do like go to the Choir after the classes"* Miss Book Cover.

Another participant commented: *"During the day my classes end at let's say, probably at three. During the day I have to push so that by three o'clock, when my classes end, I am okay and ready for Soccer or for any other extracurricular activity. From four to six, you have a resting time, and after Soccer, you rest. Then after*

resting, your body comes back. You take a bus, you go straight to your room and you study."

- Participation requirements

Some participants spoke favourably about the ECAs participation requirements at TUT. They indicated that students were allowed to join the ECAs if their academic performances were good and if they kept doing well academically. This was evident in a comment such as, *"Mostly in our debate team we set the precedence whereby in order for you to join the debate you have to always achieve high in tests and assignments as well as exam. Meaning an average of their academic year… It has motivated me to study more because now and to gather more information because before you go into a debate, you have to research and know what you are talking about. Meaning you have to have a background check on that topic on a given motion or topic. So, it encouraged me on my studies that I should also put pressure on my studies. Meaning I must understand the concept of my study and the second module that I am doing,"* Mr. Jumping.

- Networking

Another overriding finding of this study is that ECAs participation at TUT assisted students to perform well academically as they interacted with each other. Based on participants' descriptions, it seemed that as students interact during ECAs, they helped each other with academic work. Mr. Hang-on acknowledged: *"Some of the members there I meet and then from there I find that some of them we are doing similar things, we help each other. …so it also helps me to engage with them on the academic stuff. …I will say eh by joining the Choir eh they will get support from other students. They will get more information on how maybe they can be able to study…"*

Ms. Ready Made best articulated this sentiment when she said, *"You are able to meet people who are or have the same interest as you. So you are able to discuss it; to help each other with different types of techniques not just to study but to live a better life."*

- Creating a sense of well-being

The results of this study indicated that ECA rejuvenised and provided social networks for students and replenished their mental energy. This suggests that the more students participated in ECAs, the more they refreshed their minds and did well academically. On this point, Miss Spoon stated: "*…because you come back from Soccer around seven, you freshen up, you sleep. Even the mind is relaxed because you have refreshed. From class, you go to Soccer. Your mind gets relaxed."* Another participant put it:

"Yes, as I said that for me it helps me to relief the stress and the pressure. So I see the relationship because after doing what I do like the extramural activities…you get the energy like you are flexible enough to do school work….I sing to relieve stress and its helps to like calm down that when I go back to my studies, I focus more…it will help with your core. I mean your school work because you are relaxed and free" Miss Book Cover.

- Academic excellence

The primary and overriding finding of this study is that ECAs participation contributes to behaviours linked to academic success. Following are some of the expressions by the participants:

> *"I would say I was able to focus you know…there is nothing that outweighs focus out there. I feel like when you focus, you can do anything that you set your mind to, you see. …It helped me towards being a proper student…for me to even achieve my diploma and graduate you see"* Mr. Swim Above.

> *"…I am doing musical theatre, so musical theatre has drama in it. It is acting, dancing and music. So, when I enrol with extracurricular of drama society, then it impacts positively to me because I learn extra things, you know. Things that I can't learn things that I couldn't grab in class I can grab there and apply them when I am in class…"* Miss Shining Star.

"Okay, with the programme that I have been in, in most cases, the emphasis was on your academics that you cannot neglect your academics because of ECAs. So there is a thing of saying that we check your results as well. How you performed first semester, if you can't cope with it, it means you have to let on because you came here for academics. So academics come first," Miss Zoom commented.

4.5.4 Theme 4: ECAs add pressure to students' time schedules

The respondents gave answers to the research question/s relating *to the perceptions that TUT students hold of their involvement in ECAs and the different demographic groups' views regarding their participation in ECAs*. Throughout the interview data, most of the negative factors relating to the relationship between ECAs participation and students' academic achievement also emerged.

4.5.4.1 Negative impacts

An important finding was that ECAs participation could have a negative impact on students' academic performance. When asked whether there was a negative impact of ECAs participation on academic development and growth, Mr. Smile replied: *"I won't lie, there are many negative impacts, there are many*. The issues that were identified as the main negative impacts are *conflicting schedules* and a *too heavy workload*.

- Conflicting schedule

Participants indicated that sometimes they attended the ECAs at the expense of academic classes. Findings show that students miss classes because ECAs have been scheduled during class time. One participant described the impact of ECAs on academic performance in this way:

"The bad impact could be like when the student is supposed to attend the class that's where maybe the education can clutch with the course that the person is doing. …Then that's where if the student goes to participate in ECAs

then that's where the person won't manage to know what happened in the classroom if he is attending the ECAs," Mr. Swift.

Mr. Smile also commented: *"Time management becomes a problem you have to sacrifice one over the other and sometimes it becomes the academic work because you have to go and perform. Sometimes it becomes drama activities because now you have to go and write eh a test."*

Another participant also indicated that students decided to attend the ECAs at the expense of class attendance. Miss Harvest stated: "*Yes sir, I strongly believe that it has bad impacts because with peer education you want to participate more and like you sometimes see when there are campaigns, you end up not wanting to go to classes…"*

- Too heavy workload

Participants felt that ECAs negatively affected their academic performance because participation increased the students' already heavy workload. Some participants even stated that ECAs participation might lead to lower academic achievement. The words of Ms. Fruits summarise the workload problem as follows:

> *"It is not always good because when you participate, is another work that you must do on top of the school work. I remember I couldn't do well with my school work and tests because I always thought of the debate. I needed to do more on debate, and maybe to win some sort of trophy or medal. Or even have a chance to travel and do debate with other students from other varsities. But, hey, my studies were suffering because I was on the debate thing. Plus the course that I do is difficult and it needs too much of my time. So, I realised later that hey, this thing is also demanding…"*

4.5.5 Theme 5: Some students hold the opinion that ECAs have no impact on learning and academic performance

Some of the participants did not notice any impact of their involvement in ECAs on their academic achievement. When asked whether his participation in ECAs yielded

any results on his academic performance, Mr. Nice replied: *"…eh, I can't say I did. No, I can't say I saw an influence from my poetry to my academics or my studies because I haven't seen it."* Another Miss Talk commented: "*I don't think it has negative on my academics. I feel like it is neutral. Is neither positive nor negative."*

4.5.6 Theme 6: Students hold the views that ECAs should be managed to ensure fairness in the selection, control, resource allocation, and student motivation

This theme answers the research question relating to the strategies that student affairs practitioners could follow and how they can be scaffolded to ensure that ECAs help students develop and learn. Throughout the interviews, most of the participants felt that soccer coaches, choir facilitators, peer education programme coordinators, Top-Junior leadership programme facilitators, drama, poetry, and debate club coordinators needed to pay attention to certain aspects, as described below, to improve the ECAs at TUT. Issues regarding ECAs management are related to selection strategies and awareness, control, and resource allocation.

- Recruitment strategies and awareness

Some participants expressed the need for the improvement of the recruitment strategies for students to join ECAs. For example, when asked about the challenges facing ECAs at TUT, Mr. Jumping remarked*: "students don't join willingly. We have to go the room to room and explain the importance of debate. We have to first convince them to join the debate…"* In the same vein, Mr. Nice articulated. *So, people that see it see by luck. I think there is no pressure on the side of the university to make people aware that things like this* (poetry) *also exist on campus.* Some participants felt that ECAs at TUT aren't visible enough, which might cause students not to participate as the existence of those ECAs is not known. In this regard, Miss Call Me suggested: "*one poet from poetry society kind of recite a poem can make people aware that eh that kind of thing exists on campus. Just make it more visible through being involved and working with other structures in the university."*

It is also noteworthy that recruitment is mostly targeted at residence students rather than at commuter students (and this could be one of the reasons why residence students participated in this study). Mr. Dance commented in this regard: *"Personally, I think they must stop limiting it to residents only because currently err debate is mostly accessible to resident students. ….So, they must open it up, send it to faculties, send it to everywhere and engage it on matters that are affecting us here on campus, let us discuss these things."* Furthermore, the marketing of ECAs is a point of concern. The following comment by Miss. Voice illustrate this: *"I think the challenge is marketing their not marketing it enough of which many students are not really aware of it…believe social media has more power making posters telling my junior that's guys post the posters on our statuses try to encourage our friends to explain to the what top junior is all about also make posters on campus so that every learner can get to see the poster go to each faculty post it there so all can see."*

Miss Zoom also laid emphasis on how the management could do to best recruit students and market the ECAs. She indicated: *"…I think I would make it a point that it is part of the orientation. When students come in as first-years like I would make sure that every student gets to know about the programmes…"*

- Regulate and supervise

There appears to be a lack of control over ECAs, which becomes the point of concern for the participants. Mr. Jumping shared his frustrations: *"We normally organise our sessions. Meaning, we don't have a coach. We don't have someone who is responsible for the debating team in the institution. We are doing it by ourselves as students. There is no one who is overseeing the whole process. So I would like that there is someone who will be able to oversee the processes of debate."*

In this regard, some participants suggested a possible solution. Managers should be appointed to control and supervise ECAs and these huge responsibilities should not be left to students. Miss Voice expressed herself as follows: *"…I will make sure that I know my peer educators, I know their strength. I feel like when you have a supervisor and the supervisor knows you. Like the supervisor can see your strength*

and weaknesses, then it makes anything better so that he can assign who can do a task better if you know what someone is good at. If you know that this person is good at paperwork, you won't give him or her a different type of work."

Mr. Nice spoke more poignantly about the control issue. He added: *"Our facilitators should be with us when we do rehearsals and during serious events because some students just come and they disrupt. There is no control by the look at things. Maybe we must have security officers during our sessions. I think it can work."*

- Resources allocation

The third issue concerning the management is the perceived lack of resources. The types of resources which participants referred to were resources in terms of uniforms for students, equipment, and financial resources. Miss Call Me indicated that she likes participating in ECAs, but what worries her is that *"the football club, they get more uniforms, they get more exposure, and they get like everything than the choir and the drama club."* This response also suggests that besides resources, some ECAs did not receive fair attention and support by management in terms of resources and treatment. However, Mr. Fast Mode, who plays Soccer, felt that not enough resources were available for the soccer teams to perform well. He contradicted Miss Call Me when he stated: *"The loopholes are that this side of ours we have problem eh of sports facilities. If you can eh players the right way by providing for them what they need for them to perform, you will definitely have the best sporting players. We don't have facilities, we don't have the equipment. We have less, we do have the equipment, but equipment are not enough for us to even eh attract new players."*

- Motivation

Participants felt that as students participate and do well in ECAs, management should also motivate students to do well academically. Mr. Nice's comment best illustrates this: *"Ooh, I think maybe this is a very harsh demand on the university and*

maybe not everybody thinks like this. But, I think more recognition will help people study more. I know there is one price giving at the end of the year but maybe like quarterly sort of recognition for academic performance."

4.5.7 Theme 7: Most students realised the importance of becoming more self-directed in their own learning

Another important emergent theme from the interview analysis was the students' realisation of the importance of becoming more self-directed in their own learning, which answers the *research question relating to the perceived influence of the involvement in ECAs on students' SDL*. The subthemes identified were time management, learning resources, goal setting, monitoring, learning style, and community of practice.

- Time management

Most of the participants from both groups (the participants and the non-participants in ECAs) saw a positive relationship between SDL and their time management skills. In Cheng et al. (2010) parlance effective time management speaks to the 'planning and implementation' domain. In this study, only a few students who did not participate in ECAs reported having experienced time management difficulties. However, they did not dismiss the notion that time management important for a self-directed learner. For example, Mrs. U, who did not participate in ECAs, stated that *"I procrastinate doing something because I keep saying the due date is still far.*" Contrary, students that participated in ECAs see it differently. In this regard, Mrs. S stated that *"ECAs helped me a lot. I am now able to follow my plan and also manage my time well. So, if you can't manage your time, it means you will waste time."* It was further pleasing to note that some students from the group who did not participate in ECAs also reported improved time management skills, which is one of the SDL requirements. Mrs. S commented, *"I usually draw up a timetable and stick on my schedule."*

- Learning resources

It is also noteworthy from Miss Zoom's comments that participation in ECAs enabled students to be self-directed learners who used the relevant learning resources and know-how and where to get them. In this regard, participation ECAs assists students in their personal development that could help them be more resourceful. She commented: *"I know the material that I need to read for my studies. There is a library, and people who have studied before still have their previous question papers or materials I can use. There is an internet that you can access too."* Students who did not participate in TUT ECAs also shared same sentiment of this issue. Their thoughts regarding having the relevant learning materials were the same as those involved in ECAs. Mr. SS mentioned: *"Ah, in this generation 2020, the answer is Google. Google has information about anything you can look for regarding your studies. It has an answer to everything, even to a person who is doing pure Maths. There is an app that can help you break down that sum into a formula into a solution…"*

- Goal setting

Multiple participants reported that they could re-establish their goals because of their involvement in ECAs, which instilled self-discipline. One participant directly stated, *"You write your achievements, your long term goals, your short term goals. Is what I want to achieve and you make sure you follow that. So get discipline yourself so you know I am partaking in this programme. Yes, but I also have a goal and the goal is this. So for me, now I can follow these steps that I have written down. So I do in most cases,"* Miss Zoom. When asked how she becomes a self-directed learner, Mrs. Y commented, *"Well, I think for the fact that I have my own personal goals that keep me grounded."*

- Monitoring and assessment

Another identified issue relating to SDL was the students' improvement in monitoring and assessing their own learning. This issue was evident from the responses of both groups. The best example is that of Mrs. S, who said: *"I normally use previous*

question papers. I normally download question papers and memorandums when studying. I usually answer those question papers and at the end of the day I take memo and check if I am actually right" and that of Miss X who mentioned that *"Keeping records of your marks like first semester marks and second semester marks and then compare if you are improving or not."* Also, Mr. Fast Mode acknowledged: *"For me, the only way to check my progress is to check almost all the subjects as to how I performed eh like recently. In the past, I check on the past tests and the current one, and if there was a decrease, it means you have to do self – introspection."*

- Community of practice

The last section under students' SDL issues is the *community of practice*. It is a misconception that SDL speaks of individual qualities only. Etienne and Wenger-Trayner's (2015:1) definition is well-aligned with Vygotsky's (1978) social constructivism, and the role of the "more knowledgeable other" to scaffold learning is acknowledged. All participants were found to have established and been aware of the group of people they share information and study with as they were committed to pursuing their goal, i.e., graduating. This happened regardless of ECAs participation. The most relevant comment is that of Mrs. U (did not participate): *"If you do not understand something, go to your peers. If you also don't understand, go to your next big step, which is the lecturer*" and that of Miss Book Cover: *"usually I do have many people that I stay with. So usually we make plans. We make time tables. We draft timetables."* Shockingly, one of the participants who did not participate in ECA did not see the importance of other people's assistance in pursuing her goal. She commented*: "I don't mind other people. I don't think they should even mind me. So everyone should mind their own business,"* Mrs. U.

- Initiate learning

One of the characteristics of a self-directed learner is the ability to initiate their learning, making a meaningful contribution to their academic development and achievement. The participants felt that they were meeting this requirement. To

illustrate this, Miss Zoom stated: *"Well, personally, I am a self-directed learner. I would say that because you study at your own pace, right? So, I always do my ECAs and come back to do my studies because I am doing it within my pace."* However, one student who did not participate in ECAs felt that she should be assisted by the lecturer for her to learn. And this results in her not being a self-directed learner. She acknowledged: *"I cannot be that kind of student because I do need the assistance of the lecturer."*

4.6 ANALYSIS THROUGH THE LENS OF THE CULTURAL HISTORICAL ACTIVITY THEORY

In order to further analyse the quantitative and qualitative data, I used third-generation Cultural-Historical Activity Theory (CHAT) as a research lens. Mentz & De Beer (n.d.) state that CHAT could be a useful lens to analyse seemingly contradictory quantitative and qualitative findings. CHAT provides a rigorous lens to provide a "thick description" (Geertz, 1973) of the phenomenon. Mentz & De Beer (n.d.) claim that CHAT is a robust meta-theoretical framework that offers insights into systemic factors and tensions that influence (enhance or inhibit) educational objectives. In the context of this study, CHAT is used as a lens to determine what influence ECAs have on TUT students' academic performance and SDL. Engeström (1987) introduces the concept of an activity system. In the context of this study, the activity system refers to the learning of the TUT students. Engeström (1987) further suggests that a researcher should use at least two interdependent activity systems as a minimum analysis unit. In Fig 4.1, I juxtaposed two activity systems, namely (a) an activity system with a student participating in ECAs at TUT on the left and (b) an activity system with a student who did not participate on the right.

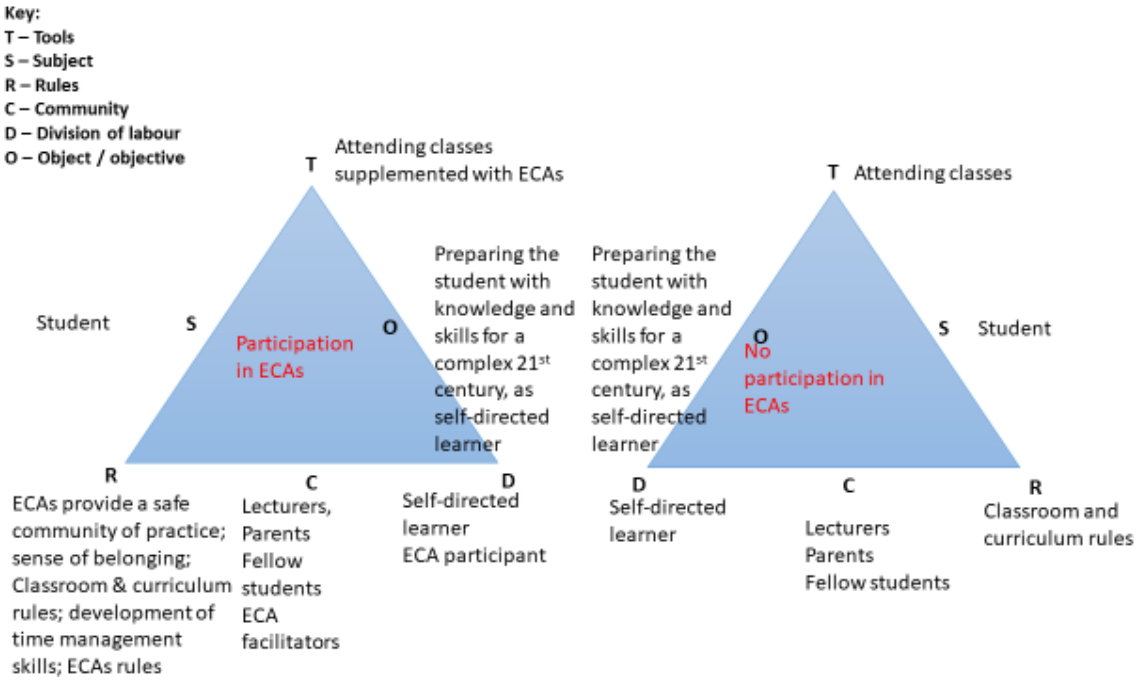


Figure 4. 1 Using the third generation Cultural-Historical Activity Theory (CHAT) to compare two activity systems

Adapted from Engeström (1987), Mentz and De Beer (n.d).

The data shows that participation in ECAs (left-hand activity system) enhances SDL (part of the 'object' in the activity system), as students develop communication and time management skills through students' participation in ECAs. Students in the right-hand activity system often do not enjoy the advantage of a supportive community of practice, and this could compromise the achievement of the 'object.' McNeil (2013) refers to it as a 'contradiction of control'. Yamagata-Lynch (2010:1) indicates that "activity systems analysis allows the researcher to extract the essence of complex data sets in a graphic model and compare one human activity-based data set with another while drawing systematic implications." Furthermore, Yamagata-Lynch (2010:1) recommends that the main elements, i.e., object, subject, mediation/tool, community, division of labour, and rule, of CHAT's activity system, as shown in Figure 4.1, should be considered to explain tensions between activity systems. In a similar vein, Mentz & De Beer (n.d.) believe that CHAT as a research lens provide additional insight into the contradictory finding by highlighting tensions between them.

4.6.1 Object

A variety of motives, both material and ideal in nature, drive students to participation in an activity system (Engeström, 1999:19). It is evident from Figure 4.1 that a tension is embedded in the object. The subjects who participated in ECAs at TUT were afforded the opportunity to become more well-rounded, compared to students who did not participate in ECAs. According to Downey (2017:1), a well-rounded student is an empowered student who is informed and becomes an active citizen in a pluralistic society. Tenhouse (2020:1) states that the overall goal of ECAs is to develop a well-rounded individual which is a principal objective of institutions of higher learning. Students' experiences with these activities helps them develop their social, intellectual, emotional and interpersonal development.

The numerous experiences these activities afford, positively link to students' emotional, intellectual, social, and interpersonal development. In this regard, Ms. Fruits, who participated in ECAs, also comments: *"I graduated for my undergraduate and I primarily think it's because I participated in ECAs because when you participate in ECAs you only have a limited time that you have to study and when you maximise that and you plan around that, so it gives you a sense time management and also prioritising what you need to do."* As Joo (2014:1) mentions, the completion of education by this group of students can result not only in earning the actual degree or diploma, but also in enhanced knowledge and increased educational status.

This suggests that students who do not participate in ECAs have fewer opportunities to become holistic students and graduates. In this instance, one of the students acknowledged.*"…I don't think the ECAs can help me serious... I need to study and pass. And I know I will pass."* It is further essential to note that both students in both activity systems have a common objective, i.e., to pass. The students who participate in ECAs are likely to have more highly developed soft skills such as time management, communication, an improved sense of belonging, interpersonal, etc., than students who did not participate.

4.6.2 Subject

Figure 4.1 depicts that each activity system has its subject. One activity system comprises students who participated in ECAs (the experimental group) while the other activity system comprises students who did not (the control group). The experimental group stands a chance of having a better academic achievement and improved SDL abilities because of their participation in ECAs than the students who did not participate, i.e., the control group. Abizada, Gurbanova, Iskandarova and Nadirzada (2020:487) concluded that participation in ECA helped students in their academic performance. By participating in ECAs, the subjects within a particular activity system stand a better chance to achieve the 'object' than the subjects that do not participate in ECAs. Also evident from the interview was that participants believed that participation in ECAs created an opportunity for them to meet, engage, and learn from each other, improving their academic performance and SDL as they help each other with their studies. For example, Mr. Fast Mode proclaims*: "ECAs give you the motivation because you get to meet different people who will help you in different ways, especially with school work."* Contrary, it was also evident from the results of the interviews that the subjects in the two activity systems held different views when it came to learning. For example, one participant who did not participate in ECAs rebuked Mr. Fast Mode's appreciation of his interaction with others and indicated that she could reach the 'object' without interpersonal communication or social interaction with other students. She comments*: "The more I am in university, I learn that you are alone. The information that I have I got for myself. I didn't come to university to help other people. Nobody helped me,"* Mrs. U. Kurt (2020:1) emphasises that a student would not be able to reach the same learning level without the help of peers.

4.6.3 Tools

The Vygotskyan concept of subject-object relation is facilitated by specific tools or instruments (Joo, 2014:1). Information in Figure 4.1 suggests that a contradiction of control or tension is embedded within the 'tools.' The subjects from one activity system benefits from class attendance and ECA participation as their 'tools' for the attainment of their 'object.' Joo (2014:1) further highlights that ECAs provide students with valuable opportunities to interact with one another, which allows enhanced learning and development. One of the participants explained the

importance of ECA participation as an additional ‘tool’ that assisted students in moving from their actual to potential development within the zone of proximal development (ZPD) towards achieving their objective. She states*: "you get to learn. You get to build your confidence. You get to explore. You get to be able to interact with people. You get to learn from each other and to be free as an individual. ...It means that now you explore the chances that what can I do outside of my career or what I can do that will benefit my career as well,"* Miss Zoom. In contrast to that, the subjects in the other activity system used class attendance as their ‘tool’ for the attainment of the learning goals that was the ‘object.’ It was evident from the interview results that some students who did not participate felt that learning was easier when they only attended classes. For them, ECAs was time consuming and added to the workload. One participant states: *"I prefer attending classes and studying at home,"* Mrs. Y. Therefore, it can be concluded that the students from one activity system used ECAs and class attendance as the scaffold to achieve their goals. The other group of students who did not participate used only class attendance for scaffolding. According to Kurt (2020:1), scaffolding “is used as a tool to achieve the potential learning outcomes of a student.”

4.6.4 Community

According to Mentz & De Beer (n.d.), community refers to all stakeholders in the activity system. As shown in Figure 4.1, the community in the two activity systems of this study consisted of fellow students, lecturers, parents and the ECAs facilitators. However, the ECAs facilitators did not form part of the community of an activity system with students that had not participated in ECAs. Yamagata-Lynch (2010:1) suggested that to aid the attainment of the motive/object, each individual member of the community must fulfil different responsibilities. In one activity system where students participated in ECAs, they had more supportive communities than those who did not. The interview results also showed that the TUT community consists of different people from different backgrounds and diverse cultures. And as such, students could learn more if they managed to identify their community of practice. Mr. Get on commented “*So, what other students do can assist me to get to know the other side of life*."

4.6.5 Division of labour

Mentz & De Beer (n.d.) defines the division of labour as the different dimensions of the subjects' actions and involvement in the activity system. It was evident from Figure 4.1 that tension was rooted in the division of labour within the activity systems. Students in one activity system participated in ECAs at TUT, which in actual fact afforded them more opportunities to develop SDL skills through interacting with fellow students than was afforded the other group of students that had not participated. In this regard, Mr. Hang-on commented, *"In a way, some members there I meet and then from there I find that some of them we are doing similar things. Then we help each other.*" Miss Shining Star also shared a useful insight regarding the division of labour when she stated that *"…I used to maybe invite two of my classmates and then we would bring a topic and we would discuss it and share our different views and how people understand the topic that we came up with."*

4.6.7 Rules

'Rules' denote guidelines and policies that direct the activities and motivate or demotivate the subject (Mentz & De Beer, n.d.). As depicted in Figure 4.1, rules for the activity system with students who participated in ECAs at TUT included ECAs rules; rules of the classroom and curriculum; and development of time management while rules for the activity system with students who did not participate were only classroom and curriculum rules. The differences in this number of rules to be followed illuminate a contradiction of control between the two activity systems. Students who participated in ECAs would have more rules to follow, and this afforded them more opportunities for becoming more disciplined with school work, disciplined with time management, disciplined when interacting with fellow students and staff members, and more self-disciplined generally than students with fewer rules to follow. Leonard (2018:1) stated that the reality was that most people wanted to do the right thing, but they often lacked the self-awareness and knowledge to do so until rules are enforced. This then suggested that students who participated in ECAs were afforded more chances of knowing more rules and abiding by them,

thereby assisting in maintaining a conducive environment for quality teaching and learning.

4.6 CONCLUSION

In this chapter, the researcher presented quantitative statistical data and qualitative data analysis to answer the research questions. The researcher also integrated the qualitative data into CHAT, which is the theoretical framework of this study. The following chapter will present the findings, limitations, recommendations, and conclusion.

CHAPTER 5

MAJOR FINDINGS, CONTRIBUTION AND LIMITATIONS OF THE STUDY, RECOMMENDATIONS, AND CONCLUSIONS

5.1 INTRODUCTION

The main purpose of this mixed-methods case research study was to investigate the perceptions of university students on how extracurricular activities (ECAs) influenced their academic achievements and perceived self-directed learning (SDL). I was interested in investigating students' perceptions of the relationship between their participation in ECAs provided by the Student Affairs and Extracurricular Development (SAED) at Tshwane University of Technology (TUT), their academic performance, and their SDL. This chapter contains a discussion of the major findings on the influence of ECA involvement on the academic performance of students and SDL in relation to literature. The discussion of study limitations, contributions from this study, recommendations, and suggestions for future research areas are also included.

5.2 INTERPRETATION OF THE MAJOR FINDINGS

As reported in chapter four, the results of this study included seven themes, and this section provides the discussion, comparing the findings to themes identified in literature.

5.2.1 ECAs provide affordances such as a sense of belonging and the development of soft skills

This study identifies factors that either encouraged or discouraged students from participating in ECAs. As expressed by the participants, various factors contributed to ECA participation or lack of it. In this section, factors enabling students to join ECAs are discussed.

- Belongingness

The majority of students cited belongingness as a pull factor for joining the ECAs at TUT. Consistent with the literature review (Al-Ansari, Al-Harbi, AbdelAziz, AbdelSalam, Tantawi & EIRefae, 2016:41), it was found that students participated in the ECAs because they provided a sense of belonging. De Beer, Smith and Jansen (2009:184) stated that having students feel that they belong was extremely important for maintaining social cohesion and identifying with a university community. Thus, enabling students to build positive interpersonal relationships with other students and staff (Seligman, 2012). Ruvalcaba, Gallegos, Borges, and Gonzalez (2016:6) also acknowledged that when students belonged to a particular community, it created strong interpersonal relationships that eventually boost their wellbeing and academic excellence.

- Socialisation

Participants also cited socialisation as a factor that made them join ECAs at TUT. In this regard, it has been found that through socialisation, students were able to interact and get social support from other students in their learning. This finding supports Shower (2020:1), who acknowledged that ECAs provide an environment for students to meet other students and receive helpful feedback, thereby enhancing individual learning and development. Saqib, Raheem, Iqbal, Salman, and Shahzad (2018:4) are other authors who indicated that participation in ECAs provides students with greater opportunities to interact with people outside their current social circle thus contributing to increased friendship and social confidence development.

5.2.2 Factors, such as time issues, workload, and lack of information provide barriers to participation in the ECAs

Several issues on ECAs participation were cited as obstacles to participation. These obstacles could be categorised into four groups:

- Lack of information

Some participants expressed their concern about the lack of information about joining ECA clubs at TUT. Therefore, the barrier to participation was attributed to their lack of information and knowledge. This finding suggests that students were not made aware of the existence of ECA and what students should do to be part of the ECAs. Murley (2019:1) contend that lack of information on ECAs and awareness becomes a barrier to ECAs participation. Therefore, it is clear that when information is not provided, students wouldn't know what the university provides for them regarding the ECAs opportunities, thus preventing the students from reaching their full potential. Eisenhauer (2015:1) acknowledged that mostly the lack of information is the result of under-communication, which, according to Aparajeya (2016:1), "makes it difficult for students to get the most out of their education."

- Tight schedule

Participants highlight that they could not participate in ECAs because of their tight academic schedule and needed to focus only on their academic work and nothing else. It was clear that adding more activities to their studies would disturb them and have a negative impact on their academic performance. The literature also supports this notion. Wilson (2009:iii), for example, agreed that students who are over-committed in too many activities do not see the benefits of participating in ECAs, and thus decide not to participate. This implies that a tight academic schedule makes it difficult for students to cope with other activities provided by the universities. Therefore, students who have many modules to study in a semester are unlikely to participate in ECAs compared to those with fewer modules.

- Lack of interest

The participants verbalised their lack of interest as an impediment to their participation in ECAs. This finding corroborates one of the factors provided as a reason why students fail to participate in ECAs. For example, Duraideivamani (2018:1) postulated that lack of interest in getting into a group might deter students from participating in ECAs. Willingness to interact with other students will determine

the rate of students' participation in ECAs. This also implies that students showing high interest in ECAs will participate in ECAs.

- Financial constraints

This finding suggests that participation in some of the ECAs requires students to have money to buy ECAs equipment. Unfortunately, not all students can afford to pay or to buy items required for ECAs participation. Therefore, only students who have money will be able to participate in ECAs. Burkhardt (2016:8) also emphasised that the participation rate would drop if students were required to spend their own money on ECAs, especially for students who cannot afford it. Berlin, Salisbury-Elk, Carney, Hoover, Allison, Shanksville-Stonycreek, Turkeyfoot, Natalie, and Rockwoo (2018:1) acknowledged that extracurricular clubs are an important part of students' education and that requiring student financial expenditure for participation would disallow some students' access to this part of their education.

5.2.3 Participation in ECAs might provide the opportunity to network and to improve time management, which could result in improved academic achievement

Firstly, this study found that most participants linked ECAs participation with positive academic achievement. This suggests that their participation in ECAs creates opportunities for students to excel in their studies as they do in their ECAs. To this end, the majority of the participants hold the view that their academic growth and development have been improved through taking part in ECAs. When they participate in ECAs, academic progress and opportunities for growth are provided because they get encouraged to be top-notch students who excel academically and do not drop out. This result matches those observed in other studies. For example, Kuh and Pike (2005) acknowledged that participation in ECAs has a positive correlation with students' retention and academic performance. Balaguer, Benítez, Albertos, and Lara (2020:1) found that participation in ECAs has contributed to improving students' academic achievement. Correa, Dumas, Jones, Mbarika, and Ong'oa (2015:169) agreed that participation in ECAs is part of the university experience and strengthens the connection between students and their universities, and is linked with positive academic performance. Freeman (2017:64) also

acknowledged that there is a positive relationship between participation in ECAs and students' academic success. Craft (2012:26) contends that participation in ECAs results in have higher grade point averages, lower absenteeism, higher educational aspirations, and increased college attendance. Therefore, this finding confirms the **threshold framework** which theorises that ECA participation has a positive impact on students' academic achievement (Coleman, 1961; cited in Seow and Pan, 2014:5).

5.2.4 ECAs add pressure to students' time schedules

Secondly, students hold the perception that the time consuming nature of some ECAs might negatively impact their study times. This suggests that participation in ECAs might lead to students' anxiety because of the heavy workload and tight academic schedules. Although this finding differs from some published studies (e.g., Ahmad, Rahman, Ali, Rahman, and Al-Azad, 2015:45), it is consistent with the findings of Onwuka, Oladele, and Beijing (2019:1), which show that students engagement in ECAs affects their academic performance negatively. This is in support of what Saibovich (2019:24) mentioned, *"Excessive enthusiasm for ECAs adversely affects learning. It happens that studying becomes a secondary matter and this has a negative impact on academic performance. From year to year, it is observed that some members of the Students Union, because of the heavy workload of public work, failed some subjects."* This finding support confirms the **zero-sum framework** which theorises that ECA participation has a negative impact on students' academic achievement (Seow and Pan, 2014:9).

5.2.5 The opinion that ECAs have no impact on learning and academic performance

Lastly, this study found little evidence to support the claim that ECAs participation has no impact on students' academic performance. In this regard, it should be noted that, as reported in chapter four, out of all 21 participants who participated in ECAs, only two reported not to have noticed any effects of ECAs on their academic achievement. This coincides with the study of Abizada, Gurbanova, Iskandarova, and Nadirzada (2020) who pointed out that participation in ECAs does not affect

students' academic achievement. This finding confirms the **developmental framework** which theorises that participation in ECAs has little or no effect on students' academic achievement. (Seow and Pan, 2014:9).

5.2.6 Some students hold the views that ECAs should be managed to ensure fairness in the selection of participants, supervision, resource allocation, and students' motivation

In this study, in areas such as the selection processes, resources allocation, supervision and motivation, it was found that intervention was required for the proper management of the ECAs at TUT. In this study, the management was found to be the facilitators, coordinators, conductors, and couches of ECAs. The participants suggested that proper management and facilitation of the ECAs would work for the best interest of the students and the institution as a whole. The forms of interventions that were mentioned included the improvement of the recruitment strategies and awareness, proper control during ECAs sessions, the allocation of fair resources the motivation of students to perform well academically while they participate in ECAs. This finding affirms what Moekwa (2014:73) indicated viz that management needs to have a strategy for coordinating and controlling ECAs, and that preparation must be carried out a year earlier so that appropriate attention and support can be provided to all ECAs. Moekwa (2014:73) also recommended that management be available during practices and when students attend official competitions.

5.2.7 Students' self-directed learning is affected by participation in ECAs

Another important finding was that while there is a positive relationship between ECAs involvement and SDL, almost all students who did not participate (the control group) also evidenced that they were able to direct their learning as well (refer to Table 4.11). The mean scores, in each domain, for the group that participated in ECAs (the experimental group) were above the median score (which is 3, and the middle value on the Likert scale), ranging from 4,13 (SD=1.05) to 3,93 (SD=1.05), suggesting that respondents' perceptions of SDL were overall positive. Similarly, the mean scores, in each domain, for the group that did not participate (the control group) were also above the median score, ranging from 3,94 (SD=1.04) to 3,57

(SD=0.9), suggesting that respondents' perceptions of the SDL were overall positive. It can further be noted, as shown in Table 4.11, that the group that participated in ECAs has the highest mean score of 4,1 (SD=1.05) on the learning motivation domain of SDL and lowest mean score of 3,93 (SD=1,05) on the self-monitoring domain of SDL as compared to that of the control group. The control group had the highest mean score of 3.94 (SD=1.04) on the learning motivation domain of SDL and lowest mean score of 3,57 (SD=0.94) on the planning and implementation domain of SDL. It can, therefore, be interpreted that although the mean scores of the four domains of SDL of the experimental group were slightly higher than the ones for the control group, the views of both groups regarding the SDL skills were overall positive. This also suggests that both groups acknowledge the importance of becoming more self-directed in their own learning and demonstrated that they possessed the main SDL skills, namely learning motivation, planning and implementing, self-monitoring, and interpersonal communication. However, ECAs participation creates opportunities for students to be self-directed learners more than students who do not participate. The literature also supports the view that a self-directed learner is one who has skills related to learning needs or learning motivation, learning resources, learning goals, learning plans and activities, learning evaluation, and communication skills (Cheng, Kuo, Lin, and Lee-Hsieh, 2010:1153). This finding confirms other findings from the literature review, and they are summarised as follows:

- Harvey (2019:1) noted that a self-directed learner has the ability and skills to become a more active learner and opening the mind to new ways of thinking.
- Petro (2017:1) stressed that self-directed learning could be as diverse as simply discovering new information and thinking critically about it, actively participating and contributing to a learning community, or designing your learning path and selecting resources, guides, and information.
- Pearce (2014:1) mentioned that being a self-directed learner *"means you have to be intrinsically motivated, which means you are self-motivated by your internal sense of autonomy, mastery, and purpose. When you define your purpose for learning and how achieving your goal matters will make you feel emotional, it becomes much easier to stay motivated."*

- Weimer (2015:1) postulates that self-directed learners generate their own learning. They do it better with the support of peers, experts, coaches, and guides who value the learners' contributions and care about their success.

This implies that students who participate in ECAs will have facilitators, coaches, conductors, peers, and coordinators, while those that do not would have lecturers and peers to scaffold their learning across the zone of proximal development, from their actual to their potential development (refer to Fig. 2.5). Students feel supported when teachers let them learn at their own pace and provide helpful resources.

5.3 LIMITATIONS OF THE STUDY

The findings from this study show a clear picture of how students at TUT perceive the influence of ECA participation on their academic performance as well as their directed learning. However, the findings of this study have to be seen in light of their associated limitations, as explained below.

5.3.1 Data collection

Given the context of the Covid-19 pandemic, the collection of quantitative data using Google Forms was a challenge because the link to a questionnaire was sent to the respondents' cell phone numbers through a WhatsApp link. Some students did not have the data to open the link and complete the questionnaire. In trying to address these challenges, the questionnaire link was sent to many more students in attempting to improve the response rate. Furthermore, some students did not have WhatsApp on their cell phones, which made it difficult for the researcher to send the Google Form questionnaire link to them. In these cases, the Google Form questionnaire link was sent to their e-mail addresses.

Another challenge that emerged was that the collection of hard copies of the quantitative data of the questionnaire was unattainable because of Covid-19 regulations, which prohibit social contact. For that reason, the questionnaire was sent to the respondents through an online platform, as indicated above.

5.3.2 Sampling

To ensure *external validity*, a convenience sampling technique was used to get a sample from the research population. Therefore, the findings of this study cannot be generalised to other students and/or other contexts. However, lessons drawn from the study can possibly be applicable in similar settings.

5.3.3 Lack of research on the topic

Another source of weakness that could have affected this study is that there were limited published research studies on the relationship between ECAs participation and SDL.

5.3.4 Time constraints

Students did not return their online responses on time. Therefore, the researcher had to remind many of the respondents repeatedly, often more than five times, to return the online questionnaire. Nevertheless, more than half of the questionnaires were returned.

5.4. CONTRIBUTIONS OF THIS RESEARCH

This case study makes three noteworthy contributions.

5.4.1 Epistemological contribution

This study expands our understanding of the interplay between ECAs engagement and students' academic performance and SDL in institutions of higher learning in South Africa. The current empirical findings add to a growing body of literature on the significance of ECAs as a scaffold to enhance students' SDL. Furthermore, this study has a unique focus on SDL, and was conducted in a very diverse context, unlike other studies (e.g., Loyens, Magda & Rikers, 2008; Tekkol, & Demirel, 2018). As such, this study will add a theoretical contribution to the body of knowledge.

5.4.2 Methodological contributions

This is the first time that CHAT has been used to gain insight into the relationship between students' involvement in ECAs and their academic achievement as well as their SDL abilities. Similarly, other researchers could adopt the same strategy for collecting and analysing quantitative and qualitative data to conduct similar research in other settings. CHAT could also be the appropriate research lens to adopt and employ in interpreting the conflicting messages in quantitative and qualitative data in a mixed-methods study. In this regard, CHAT can make sense of binary data where quantitative and qualitative data are not well aligned. Mentz and De Beer (n.d.) affirm that CHAT is a research lens that assists in interpreting conflicting quantitative and qualitative data, and provides a 'thick description' and interpretation of data in complex educational settings, such as in SDL environments, and illuminates factors influencing the enhancement (or impediment) of SDL (Geertz, 1973, cited in Mentz & De Beer, n.d.).

5.4.3 Practical contribution

This study provides a detailed insight into how ECAs can be used as a tool to enhance student learning so that they are lifted to their potential development. Briefly, from a practical contribution perspective, this study provides insight into how TUT could manage ECAs to assist students in their academic development and sense of belonging. Also, the results of this study will contribute to advance strategies on the design, implementation, monitoring, and evaluation of the ECAs in higher education.

5.5 RECOMMENDATIONS

In this study, both recommendations for practice and future research are presented.

5.5.1 Recommendations for practice

The findings of this study have some important implications for future practice. In this regard, the researcher was guided by the major themes that emerged from this study as a framework for the presentation.

5.5.1.1 Factors that could encourage students to participate in ECAs

The findings suggest several courses of action for the students to participate in ECAs:

- Students should attend orientation sessions where information on ECAs is provided. This will help all students to make informed choices regarding ECAs participation.
- Students should sign and adhere to a code of conduct when participating in ECAs of their choice. Students would then be able to stick to defined acceptable behaviour and remain disciplined throughout their course of study and throughout their ECAs journey with TUT.
- Students should be able to identify with and be incorporated in a supportive community of practice wherein they share their experiences in participating in ECAs. This will enable the rest of the TUT community to have a general picture of the influence of ECAs on SDL.
- Students should view ECAs as part of university life and not just an add-on.

5.5.1.2 Student's academic development and growth factors

In the light of the findings of this study, the following important practical implications of issues relating to the students' academic development and growth should be considered:

- Students' ECAs loads and schedules should not exceed their academic workload. Gill (2020:1) contends that while ECAs are important, academics come first. TUT should develop guidelines restricting ECA participation to a

maximum. Students will then be able to balance their studies and ECA engagements so that they can prioritise activities and not leave their academic work for last. This could be another workable strategy that can foster the interest of other students in ECAs.

- Students should participate in a maximum of 3 ECAs since participation in many ECAs might distract students from their academic work. Gill (2020:1) indicates that students should not join all ECAs the campus offers because it would be a big drain on their time and chances are they wouldn't be interested in most of them. Randall and Bohnert (2012, cited in Seow & Pan, 2014:9) confirm that participation in the ECA leads to a positive academic outcome up to a certain point; beyond that point, participation has a negative impact on academic performance. Fredricks (2012:295) points out that students participating in between 2 and 3 ECAs are more likely to have better academic achievements than students who participate in many ECAs.

5.5.1.3 More attention should be paid to the management of ECAs at TUT

Another implication of the findings of this study is that the management of TUT and/or Students Affairs practitioners should do the following:

- Maintain the safety of students during ECAs at all costs.
- Design and communicate policy on ECA participation to the students as well as the TUT community in general.
- Include students' records on ECA participation in their academic transcripts. Sullivan (2018) postulates that "until we have an academic transcript that encompasses the students' learning and development inside and outside of the classroom, a Co-Curricular Record/Transcript (CCR/T) will allow your students – and your administration – to better understand the soft skills that are developed on your campus."
- Give fair and equal attention to control to all ECAs
- Develop a one-stop website or a link that all students can access for information on ECAs and how students could participate.

- Monitor the academic performances of students who participate in ECAs and support those who fall behind in their academics.
- Recognise the existence of ECAs by creating opportunities for students to showcase their talents during formal ceremonies such as graduations. In this regard, e.g., the choir could perform during graduation ceremonies.

5.5.1.4 Students' self-directed learning

- Students should always strengthen their SDL skills, especially when realising how the Covid-19 pandemic affects the education sector. Schleicher (2020:17) contends that the scourge of the Covid-19 pandemic results in students studying from home. This means that students should be able to initiate learning by planning, monitoring, and assessing their learning. These skills need to be nurtured in all students regardless of their affiliation, or not, to ECA. This suggests that there should be a programme for TUT staff members to assist them to adopt SDL principles. This will assist staff members to realise and recognise the all-round growth and development of the students.
- Lecturers should move from the traditional teacher-centred approach of teaching and learning to a student-centred approach where students are active participants. Bogler (2018:1) suggested that in student-centred learning, "students gain an understanding of their learning style. They get more control over how they spend their time. They get to collaborate with other students."

5.5.2 Recommendations for future research work

In light of the findings of this study, several topics in need of further investigation emerged. These are:

- Investigating the perceptions of the university management regarding ECAs and SDL;
- Exploring the kind of support that ECAs participants need to enhance their SDL;

- Studying students' perceptions of the influence of ECAs on SDL with regard to full-time and part-time students; and
- Ways to include students' ECAs records in their academic transcripts. Researchers such as Stirling and Kerr (2015:2) opined the need to recognise the importance of ECAs participation by formally recording the activities in their academic transcripts. Stirling and Kerr (2015:2) further indicated that this inclusion documents students' educational experiences beyond what is already accounted for on the academic transcript.

Also, it would be interesting to assess the effects of ECAs on SDL, looking at the influence per type of ECA. This will assist in understanding whether certain types of ECAs influence students' SDL more than others. It will also be interesting to compare the experiences of ECAs participants on SDL per campus considering that TUT has six campuses. There is a definite need to find out whether the geographical setting of a campus determines the relationship between ECAs engagement and SDL as well as students' academic achievement.

5.6 CONCLUSION

The main goal of this study was to investigate the TUT students' perceptions of the influence of ECA participation on their academic achievement and SDL using CHAT as the research lens. This study has shown that a definite relationship between ECAs and students' academic achievement exists. Notwithstanding some limitations, this study has succeeded in achieving its objectives (listed in section 1.3.3). It was also found that the results of the quantitative data analysis corroborate the qualitative data analysis findings. The study has found that the relationship between ECA participation and SDL is overall positive.

Simply put, this study has determined that the majority of the students who took part in ECAs at TUT witnessed a positive relationship between ECA participation and academic performance, with few students experiencing a negative impact and/or no impact at all. ECA participation was found to be a useful tool that equipped students

with SDL skills and enabled them to attain the object, i.e., becoming a successful self-directed learner.

Hopefully, this study's findings contribute to understanding the relationship between ECA participation and academic achievement and SDL in higher education institutions in South Africa. Also, this study's findings may assist the university management in developing policies on the implementation of ECAs and formulation procedures on the application of SDL approaches to teaching and learning. This study's recommendations open doors to further research on, e.g., the relationship between ECAs and SDL using CHAT as a research lens.

BIBLIOGRAPHY

Abizada, A. Gurbanova, U., Iskandarova, A. & Nadirzada, N. 2020. The effect of extracurricular activities on academic performance in secondary school: The case of Azerbaijan. *International Review of Education*, (66):487–507.

Adams, W.C. 2015. Conducting semi-structured interviews, in K.E Newcomer, H.P Hatry & J.S Wholey (eds). Handbook of practical program evaluation (4th). Jossey-Bass: A Wiley Imprint.

Adeyemo, S.A. 2010. The relationship between students' participation in school based extracurricular activities and their achievement in Physics. *International Journal of Science and Technology Education Research,* 1(6):111-117.

Ahmad, M., Rahman, M.F., Ali, M., Rahman, F.N. & Ali-Azad, M. 2015. Effect of Extracurricular Activity on Student's Academic Performances. *JAFMC Bangladesh,* 11(8): 41 – 46.

Ahmadabadi, S. 2018. Sport Activity and Smoking, Alcohol and Drug Abuse among students. *Ann Appl Sport Sci,* 6 (1):47 – 56.

Ainsworth, Q. 2020. Data Collection Methods. Available online at https://www.jotform.com/data-collection-methods/. Accessed date, 05 July 2020.

Akers, M. (n.d.) How Can Extracurricular Activities Be Used To Achieve Student Success? Available online at https://www.efor-real.com/4614/how-can-extracurricular-activities-improve-student-success/. Accessed date, 08 January 2020.

Akhtar, I. 2016. Research Design. Research in Social Science: Interdisciplinary Perspectives. Available online at https://www.researchgate.net/publication/308915548_Research_Design. Accessed date 05 January 2020.

Akos, P. 2006. Extracurricular Participation and the Transition to Middle School. *RMLE Online,* 29 (9):1-9.

Al-Ansari, A., Al-Harbi, F., AbdelAziz, W., AbdelSalam, M., Tantawi, M.M.E., & EIRefae, I. 2016. Factors affecting student participation in extracurricular activities: A comparison between two Middle Eastern dental schools. *The Saudi Dental Journal*, 28 (1):36 -43.

Albert, B., Tullis, T. & Tedesco, D. 2010. Beyond the Usability Lab: Conducting Large-scale Online User Experience Studies. Morgan Kaufmann Publishers, USA.

Alhadeff, S. 2019. Maximizing Educational Outcomes with Extracurricular Activities. (In Mahmud, P. (ed). Available online at http://www.cornellpolicyreview.com/education-extra-activities/?pdf=4937. Accessed date, 15 December 2019.

Ali, S., Zubair, H., Fahad, M., Hamid, K., & Awais, A. 2013. Factors contributing to the Students' Academic Performance: A case study of Islamist University Sub-Campus. *American Journal of Educational Research,* 1(8):283-289.

Amaka, I., & Okonkwo, U. 2013. A Case Study of Teaching Choral Singing in an Urban Secondary School of Anambra State Applying Learning Theories. *International Journal of Academic Research in Progressive Education and Development,* 2(1):309-318.

American College Testing. 2006. Balancing My Social Life. Student Readiness Inventory Tool Shop. Available online at https://www.mtu.edu/counseling/resources/balancingsociallife.pdf. Accessed date, 05 January 2020.

American Psychological Association. 2003. Five principles for research ethics. Available online at https://www.apa.org/monitor/jan03/principles. Accessed date, 15 May 2020.

Amlor, M.Q. 2016. Impacting Indigenous Knowledge through Traditional Forms of Entertainment: The role of Ewe Play Games. *World Journal of Social Science,* 3 (2): 63 – 74.

Annu, S. & Sunita, Mishra. 2014. Extracurricular Activities and Student's Performance in Secondary school. *International Journal of Technical Research and Application,* 2 (6): 08 – 11.

Aparajeya. 2016. Lack of Communication between Teachers and Students. Available online at https://www.toppr.com/bytes/failure-communication-between-teachers-and-students/. Accessed date, 13 November 2020.

Arora, S.K. 2020. What is Data Analysis? Methods, Techniques & Tools. Available online at https://hackr.io/blog/what-is-data-analysis-methods-techniques-tools. Accessed date, 09 May 2020.

Asim, A. –A., Fahad, A.-H., Wafaa, A., Maha, A., Maha, M. E. & Esmail, E. 2016. Factors affecting student participation in extracurricular activities: A comparison between two Middle Eastern dental schools. *The Saudi Dental Journal,* 28(1):36–43.

Astin, A.W. 1999. Student Involvement: A Development Theory for Higher Education. *Journal of College Student Development,* 40 (5): 518 -529.

Balaguer, A., Benítez, E., Albertos, A. & Lara, S. 2020. Not everything helps the same for everyone: relevance of extracurricular activities for academic achievement: Humanities & Social Sciences Communications. School of Education and Psychology, University of Navarre, Pamplona, Spain.

Balyer, A. & Gunduz, Y. 2012. Effects of structured extracurricular facilities on students' academic and social development. *Procedia Social and Behavioral Science,* (46): 4803 – 4807.

Banerjee, A. & Chaudhury, S. 2014. Statistics without fears: Populations and samples. *Industrial Psychiatry Journal,* 19(1): 60 – 65.

Barnett, L.A. 2007. "Wiiners" and "Losers": The Effect of Being Allowed or Denied Entry into Competitive Extracurricular Activities. *Journal of Leisure Research,* 39 (2): 316 – 344.

Bartko, W.T. & Eccles, J.S. 2003. Adolescent Participation in Structured and Unstructured Activties: A Person-Oriented Analysis. *Journal of Youth and Adolescent,* 32 (4): 233 – 241.

Bartkus, K.R., Nemelka, B., Nemelka, M. & Gardner, P. 2012. Clarifying The Meaning of Extracurricular Activity: A literature review of Definitions. *American Journal of Business Education,* 5(6): 693-704.

Bascia, N. 2014. The School Context Model: How School Environments Shape Students' Opportunities to Learn. In Measuring What Matters, People for Education. Toronto: November 8, 2014.

Basic, J. & Erdelez, S. 2016. The role of risky behaviour and health education in college students' health information acquisition on the internet. *Proceedings of the Association for Information Science and Technology,* 52(1):1-2.

Batiibwe, M.S.K. 2019. Using Cultural Historical Activity Theory to understand how emerging technologies can mediate teaching and learning in a mathematics classroom: a review of literature. *Research and Practice in Technology Enhanced Learning,* (14): 1-20.

Batmanabane, V. & Kfouri, J. 2017. Qualitative data collection. Available online at https://trp.utoronto.ca/students2016/wp-content/uploads/sites/11/2016/09/Interviews-JK_VB-V7-March-1.pdf. Accessed date, 08 May 2020.

Becton, L. 2020. Guide on Extracurricular Activities for High School Students. Available online at https://www.educationcorner.com/k12-extracurricular-activities.html. Accessed date, 06 January 2020.

Belyh, A. 2017. Overview of Qualitative and Quantitative Data Collection Methods. Available online at https://www.cleverism.com/qualitative-and-quantitative-data-collection-methods/. Accessed date, 07 May 2020.

Berlin, E.M., Salisbury-Elk, T.S., Carney, L.K., Hoover, W.C., Allison, S., Shanksville-Stonycreek, F., Turkeyfoot, G.H., Natalie, V. & Rockwoo, K. 2018. Question of the week: Should students have to pay to participate in extracurricular? Available online at https://www.dailyamerican.com/entertainment/highschoolhighlights/question-of-the-week-should-students-should-have-to-pay-to-participate-in-extracurriculars/article_0a8d2163-3fff-5940-aec8-45cc0b3b14a5.htmlx. Accessed date, 13 November 2020.

Beron, K. J., & Piquero, A. R. 2016. Studying the determinants of student-athlete grade point average: The roles of identity, context, and academic interests. *Social Science Quarterly*, 97(2):142-160.

Bevans, R. 2020a. An introduction to the one-way ANOVA. Available online at https://www.scribbr.com/statistics/one-way-anova/. Accessed date, 21 November 2020.

Bevans, R. 2020b. An introduction to t-tests. Available online at https://www.scribbr.com/statistics/t-test/. Accessed date, 19 January 2020.

Bhandari, P. 2020. Designing and analysing Likert scales. Available online at https://www.scribbr.com. Accessed date, 08 January 2022.

Bhat, A. 2020. Methods used for qualitative data collection. Available online at https://www.questionpro.com/blog/qualitative-data-collection-methods/. Accessed date, 07 May 2020.

Bhatia, M. 2018a. A complete Guide to Quantitative Research Methods. Available online at https://humansofdata.atlan.com/2018/06/quantitative-research-methods/. Accessed date, 25 April 2020.

Bhatia, M. 2018b. Your Guide to Qualitative and Quantitative Data Analysis Methods. Available online at https://humansofdata.atlan.com/2018/09/qualitative-quantitative-data-analysis-methods/. Accessed date, 10 May 2020.

Bimper, A. Y., Harrison, L., & Clark, L. 2012. Diamonds in the rough: Examining a case of successful black male student athletes in college sport. *Journal of Black Psychology*, 39(2):1-24.

Blog, H. 2018. The Incomparable Benefits of Unstructured Play. Available online at https://habyts.com/screen-time-limits-benefits-unstructured-play/. Accessed date, 11 December 2019.

Blomfield, C. & Barber, B. 2010. Australian Adolescents' Extracurricular Activity Participation and Positive Development: Is the Relationship Mediated by Peer Attributes? *Australian Journal of Educational & Development Psychology,* (10):108 – 122.

Bogler, M. 2018. What are the Advantages of Student-Centered Learning? Available online at https://www.projectpals.com/project-based-learning-blog/what-are-the-advantages-of-student-centered-learning. Accessed date, 18 November 2020.

Bosch, C., Mentz, E., & Goede, R. 2019. 'Self-directed learning: A conceptual overview,' in E. Mentz, J. De Beer & R. Bailey (eds.), Self-Directed Learning for the 21st Century: *Implications for Higher Education* (NWU Self-Directed Learning Series Volume 1), pp. 1-36, AOSIS, Cape TOWN.

Bose, B. 2018. How to Analyze Data in Excel: Simple Tips and Techniques. Available online at https://www.digitalvidya.com/blog/how-to-analyze-data-in-excel/. Accessed date, 10 May 2020.

Botma, Y., Greeff, M., Mulaudzi, F.M., & Wright. S.C.D. 2010. Research in Health Sciences. Pearson Holdings Southern Africa (Pty) Ltd, Cape Town.

Bowden, A., Fox-Rushby, J., Nyandieka, L. & Wanjau, J. 2002. Methods for pre-testing and piloting survey questions: illustrations from the KENQOL survey of health-related quality of life. *Health Policy and Planning,* 17(3):322-330.

Boynton, P. 2004. Administering, analysing, and reporting your questionnaire: Hands-on guide to questionnaire research. *BMJ,* 328(452):1372-1375.

Bradley, J.L. & Conway, P.F. 2016. A dual step transfer model: Sport and non-sport extracurricular activities and the enhancement of academic achievement. *British Educational Research Journal,* 42(4):703 – 728.

Braun, V. & Clarke, V. 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology,* 3(2):77-101.

Brinkerhoff, R.O. 2003. The Success Case Method. San Francisco: Berrett-Koehler Publishers.

Brinkerhoff, R.O. 2006. Telling training's story*. Evaluation made simple, credible, and effective.* San Francisco: Berrett-Koehler Publishers.

Broh, B. A. 2002. Linking extracurricular programming to academic achievement: Who benefits and why? *Sociology of Education*, 75(1), 69–95.

Brown, R. & Evans, W.P. 2002. Extracurricular Activity and Ethnicity: Creating Greater School Connection among Diverse Student Populations. *Urban Education,* 37(1):41-48.

Brown, T. 2019. Data Analytics VS. Data Analysis: What is the Difference? Available online at https://itchronicles.com/big-data/data-analytics-vs-data-analysis-whats-the-difference/. Accessed date, 09 May 2020.

Bryman, A., Becker, S. & Sempik, J. 2008. Quality Criteria for Quantitative, Qualitative and Mixed Methods Research: A view from social policy. *International Journal of Social Research Methodology,* 11(4):261-276.

Bugrimenko, E.A. & El'konin, B.D. 2001. Sign Mediation in Processes of Formation and Development, Journal of Russian & East European Psychology, 39(4): 20-33.

Buma, A.M. 2012. A short intervention programme to develop science teachers' pedagogical content knowledge to teach for the affective domain. PhD. (Chemistry)/M.Sc. (Physics)/M.A. (Philosophy)/M.Com. (Finance) etc. [Unpublished]: University of Johannesburg. Available online at

https://ujcontent.uj.ac.za/vital/access/services/Download/uj:22555/SOURCE1. Accessed date, 15 May 2020.

Burkhardt, R.J. 2016. The Impact of Poverty on Participation In Extracurricular Activities. Dissertation, Goucher College.

Burnard, P., Gill, P., Stewart, K, Treasure, E. & Chadwick, B. 2008. Analysing and presenting qualitative data. *British Dental Journal,* 204(8): 429-432.

Busby, E. 2019. Poorest children three times more likely to miss out on extracurricular activities, study finds. Available online at https://www.independent.co.uk/news/education/education-news/poverty-children-school-extracurricular-music-sport-social-mobility-family-a9010936.html. Accessed date, 15 December 2019.

Bush, J.M. 2003. The Effect of Extracurricular Activities on School Dropout. *Honors Projects.* Paper 16. Available online at https://pdfs.semanticscholar.org/f847/d062af4533edc08f905562d5054d9084b1e2.pdf. Accessed date, 07 January 2020.

C.S. Mott Children's National Poll on Children's Health. 2015. Pay-to-Play Sports Keeping Some Kids on the Sidelines. *Mott Poll Report,* 22(6): 1- 2. Available online at http://mottnpch.org/sites/default/files/documents/012014_paytoplay.pdf. Accessed date, 15 December 2019.

Cadwallader, T., Garza, N. & Wagner, M. 2002. Participation in Extracurricular Activities. Available online at https://nlts2.sri.com/reports/2003_04-2/nlts2_report_2003_04-2_ch4.pdf. Accessed date 28 June 2019.

Caliman, C. 2015. Data collection. Available online at https://www.tmcec.com/files/6514/3473/6140/00_-_Caliman_BINDER_Data_Collection.pdf. Accessed date, 25 April 2020.

Camp, W. 1990. Participation in student activities and achievement: A covariance structural analysis. *Journal of Educational Research,* 83(5): 272–278.

Campbell, R. 2014. Extracurricular Activities: How Much is Too Much? Available online at https://www.noodle.com/articles/extracurricular-activities-how-much-is-too-much. Accessed date, 16 January 2020.

Canterbury. (n.d.). An Introduction to Ethics Issues and Principles in Research Involving Human Participants. Canterbury Christ Church University, UK. Available online at https://www.canterbury.ac.uk/research-and-consultancy/documents/introduction-to-ethics.pdf. Accessed date, 14 May 2020.

Carbonaro, W. & Maloney, E. 2019. Extracurricular Activities and Student Outcomes in Elementary and Middle School: Causal Effects or Self-section? *Socius: Sociological Research for a Dynamic World,* (1):1 – 17.

Cary, J.M. 1992. Legal Issues Related to Extracurricular Activities. Campbell University School of Law. Scholarly Works.

Caulfield, J. 2019. How to do thematic analysis. Available online at https://www.scribbr.com/methodology/thematic-analysis/. Accessed date, 11 May 2020.

Chachra, D., Chen, H.L., Kilgore, D. & Sheppard, S. 2009. Outside the Classroom: Gender Differences in Extracurricular Activities in Engineering Students. CAEE Research Brief, Centre for Advancement of Engineering Education.

Chahine, I. 2020. Research design seminar. SDL, research unit: North-West University – Potchefstroom campus.

Chambers, E.A., & Schreiber, J.B. 2004. Girls' academic achievement: varying associations of extracurricular activities. *Gender and Education,* 16 (3): 327 – 346.

Chapman, R. 2018. What is data analysis in research and how to do it? Available online at https://limeproxies.com/blog/what-is-data-analysis-in-research-and-how-to-do-it/. Accessed date, 09 May 2020.

Cheng, S., Kuo, C., Lin, K. & Lee-Hsieh, J. 2010. Development and preliminary testing of a self-rating instrument to measure the self-directed learning ability of nursing students. *International Journal of Nursing Studies,* (47):1152–1158.

Chima, I.T., & Nneka, O.V. 2017. Determinations of selected anti-social behaviour among students in selected universities in Enugu Metropolis South East Nigeria. *Best: Journal of Recent Trends in Social Sciences Research and Development,* 3 (1): 7 – 14.

Christensen, L.B. 2007. Experimental Methodology. Pearson Education, Inc.

Ciobanu, A. 2013. The Role of Student Services in Improving Student Experiences in Higher Education. *Procedia: Social and Behavioural Sciences,* (9): 169 – 173.

Claiborne, L., Morrell, J., & Bruff, D. (n.d.). Teaching Outside the Classroom. Available online at https://wp0.vanderbilt.edu/cft/guides-sub-pages/teaching-outside-the-classroom. Accessed date, 20 January 2019.

Clegg, S., Stevenson, J., & Willott, J. 2010. Staff conceptions of curricular and extracurricular activities in higher education. *Higher Education,* (59): 615 – 626.

Coker, C., McMahon, S.D., Martinez, A., Cohen, J. & Thapa, A. 2017. Perception of school climate: The role of extracurricular activities. ResearchGate.

Coleman, J. 1961. The Adolescent Society. New York: Free Press of Glencoe.

Collingridge, D. 2014. Validating a Questionnaire. Available online at https://www.methodspace.com/validating-a-questionnaire/. Accessed date, 06 May 2020.

Corden, A. & Sainsbury, R. 2006. Using verbatim quotations in reporting qualitative social research: researchers' views. ESRC 2136: Social Policy Research Unit, The University of York.

Correa, M., Dumas, B.K, Jones, C., Mbarika, V. & Ong'oa, I.M. 2015. Extracurricular Activities and Academic Achievement: A Literature Review. *Global Advanced Research Journal of Educational Research and Review,* 4(9):165-169.

Covay, E. & Carbonaro, W. 2010. After the Bell: Participating in Extracurricular Activities, Classroom Behaviour, and Academic Achievement. *Sociology of Education,* 83 (1): 20 – 45.

Craft, S.W. 2012. The Impact of Extracurricular Activities on Student Achievement at the High School Level. . Dissertations. 543. https://aquila.usm.edu/dissertations/543. Available online at https://aquila.usm.edu/cgi/viewcontent.cgi?article=1567&context=dissertations. Accessed date, 16 November 2020.

Craft, S.W. 2012. The Impact of Extracurricular Activities on Student Achievement at the High School Level. . Dissertations. 543. https://aquila.usm.edu/dissertations/543. Available online at https://aquila.usm.edu/cgi/viewcontent.cgi?article=1567&context=dissertations. Accessed date, 16 November 2020.

Creswell, J. W. 1998. *Qualitative inquiry and research design: Choosing among five traditions.* Thousand Oaks, CA: Sage Publications.

Creswell, J.W. & Plano, C.V.L. 2011. Designing and Conducting Mixed Methods Research (2nd ed.). Thousand Oaks, CA: SAGE Publications, Inc.

Creswell, J.W. & Poth, C.N. 2018. Qualitative Inquiries and Research Design: Choosing Among Five Approaches. Los Angeles: SAGE Publishers.

Creswell, J.W. 2009. Research Design: Qualitative, Quantitative and Mixed Method Approaches (3rded.). Los Angeles: Sage Publication, Inc.

Creswell, J.W. 2014. Research Design: Qualitative, Quantitative and Mixed Methods Approaches (4th ed.). Los Angeles: Sage Publication, Inc.

Croft, M. & Moore. R. 2019. Rural Students: Technology, Coursework, and Extracurricular Activities. Available online at https://www.act.org/content/dam/act/unsecured/documents/R1734-rural-equity-2019-02.pdf. Accessed date, 14 December 2019.

Crossman, A. 2017. An overview of Qualitative Research Methods. Available online at https://www.thoughtco.com/qualitative-research-methods-3026555. Accessed date, 29 December 2017.

Crowe, S., Creswell, K., Robertson, A., Huby, G., Avery, A., & Sheikh, A. 2011. The case study approach. *BMC Medical Research Methodology. 11:100* Available online at *http://www.biomedcentral.com/1471-2288/11/100.* Accessed date, 25 July 2020.

David, A. 2018. How to Balance School with Extracurricular Activities. Available online at https://campusbuddy.com/how-to-balance-school-with-extracurricular-activities/. Accessed date, 05 January 2020.

De Beer, J. & Henning, E. 2011. Retreating to Vygotskian stage where pre-service teachers play out social, "dramatical collisions." *Acta Academia*, 43(4):?-?

De Beer, J. 2019. 'The importance of context for self-directed learning,' in E. Mentz, J. De Beer & R. Bailey (eds.), Self-Directed Learning for the 21st Century: Implications for Higher Education (NWU Self-Directed Learning Series Volume 1), pp. 103– 131, AOSIS, Cape Town.

De Beer, J., Petersen, N. & Dubar-Krige. 2011. An exploration of the value of an educational excursion for pre-service teachers. *Journal of Curriculum Studies,* DOI:10.1080/00220272.2011.576771. Available online at http://dx.doi.org/10.1080/00220272.2011.576771. Accessed date, 20 December 2017.

De Beer, J., Smith, U. & Jansen, C. 2009. 'Situated' in a separated campus – Students' sense of belonging and academic performance: A case study of the experiences of students during a higher education merger. Education as Change, 13 (1):167 – 194.

De Vos, A.S., Strydom, H., Fouche, C.B. & Delport, C.S.L. 2005. Research at Grassroots. Pretoria: Van Schaick.

De Wet, N., Muloiwa, T., & Odimegwu, C. 2018. Extra-curricular activities and youth risky behaviours in South Africa. *International Journal of Adolescence and Youth,* 23 (4): 431-440.

De Yebenes Prous, M.J.G., Salvanes, F.R. & Ortells, L.C. 2009. Validation of questionnaire. *Reumatol Clin,* 2009; 5(4):171-177.

DeFranzo, S.E. 2012. The benefits of cross tabulation in a survey analysis. Available at https://www.snapsurveys.com. Accessed date, 18 April 2018.

DeFranzo, S.E. 2011. What's the difference between qualitative and quantitative research? Available online at https://www.snapsurveys.com/blog/qualitative-vs-quantitative-research/. Accessed date, 01 August 2018.

DeJonckheere, M. & Vaughn, L.M. 2019. Semi-structured interviewing in primary care research: a balance of relationship and rigour. *Fam Med Com Health* 2019;7: e000057. doi:10.1136/ fmch-2018-000057.

Delhi, N. 2016. Importance of balancing sports and academics: Difficult but doable. Available online at https://www.indiatoday.in/education-

today/featurephilia/story/balancing-sports-and-academics-330125-2016-07-19. Accessed date, 13 January 2020.

Department of Education. 2019. School Context. Queensland Government. Available online at https://qed.qld.gov.au/working-with-us/det-induction/queensland-state-schools/working-in-state-schools/school-context. Accessed date, 14 December 2019.

Don, Y., Hussin, F., Raman. A. & Kasim, K. 2016. The role of teacher leadership and extracurricular activities in the construction of the soft skills of secondary school students in Malaysia. *International Journal of Academic Research and Development,* 3(1):89-95.

Drabble, L., Trocki, K.F., Salcedo, B., Walker, P.C. & Korcha, R. A. 2017. Conducting qualitative interviews by telephone: Lessons learned from a study of alcohol use among sexual minority and heterosexual women. *Qual Soc Work*, 15(1): 118–133.

Dudovskiy, J. 2017. Non-Probability Sampling: Research Methodology. Available online at https://research-methodology.net/sampling-in-primary-data-collection/non-probability-sampling/. Accessed date, 01 January 2018.

Dumais, S.A. 2008. Corhot and Gender Differences in Extracurricular Participation: The Relationship Between Activities, Math Achievement, And College Expectations. *Sociological Spectrum,* 29 (1): 72 – 100.

Duraideivamani, S. 2018. What are the reasons why do you not take part in extracurricular activities in school? Quora. Available online at https://www.quora.com/What-are-the-reasons-on-why-do-you-not-take-part-in-extracurricular-activities-in-school. Accessed date, 13 November 2020.

Dworkin, S.L. 2012. Sample Size Policy for Qualitative Studies Using In-Depth interviews. *Achieves of Sexual Behavior,* 6(41):1319-1320.

Dyer, C. 2006. Research in Psychology: A practical Guide to Methods and Statistics. Blackwell Publishing, USA.

Eccles, J.S., & Roeser, R.W. 2009. Schools, Academic Motivation, and Stage-Environment Fit. In R. M. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology.* Hoboken, NJ: John Wiley & Sons, Inc.

Editage. 2018. What every researcher should know to conduct research ethically. Available online at https://www.editage.com/insights/what-every-researcher-should-know-to-conduct-research-ethically?refer=scroll-to-1-video&refer-type=video. Accessed date, 14 May 2020.

Eisenhauer, T. 2015. Why lack of communication has become the number one reason people quit. Available online at https://thenextweb.com/insider/2015/11/08/why-lack-of-communication-has-become-the-number-one-reason-people-quit/. Accessed date, 13 November 2020.

Ekechukwu, R.O., Ateke, B.W., & Ekenedo, G.O. 2014. Leadership Education through Extracurricular Activities in Tertiary Institutions in Nigeria. *Academic Research International,* 5 (3): 273-279.

Elfil, M. & Negida, A. 2017. Sampling methods in clinical research; an Educational Review. *Emergency*, 5(1): e52.

Endozo, A. & Oluyinka, S. 2019. Factors Affecting Physical Activity Participation Among University Students. *Journal of Social Science Research,* (14):3161- 3167.

Engeström, Y. & Glăveanu, V. 2012. Interview on Third Generation Activity Theory: Interview with Yrjö Engeström. *Europe's Journal of Psychology*, 2012, 8(4): 515–518.

Engeström, Y. 1987. Learning by expanding: An activity-theoretical approach to developmental research. Helsinki: Orienta-Konsultit.

Engeström, Y. 1999. *Activity theory and individual and social transformation.* In Y. Engeström, R. Miettinen, & R.-L. Punamäki (Eds.), *Learning in doing: Social, cognitive, and computational perspectives. Perspectives on activity theory* (p. 19–38). Cambridge University Press.

Etienne. & Wenger-Trayner, B. 2015. Communities of practice: A brief introduction. Vol.15:1-8.

Etikan, I., Musa, S.A. & Alkassim, R.S. 2016. Comparison of Convenience Sampling and Purposive Sampling. *American Journal of Theoretical and Applied Statistics*, Vol. 5 (1): 1-4.

Explorable.com. 2020. Non-Probability Sampling. Available online at https://explorable.com/non-probability-sampling. Accessed date, 19 April 2020.

Feilzer, M.Y. 2010. Doing mixed methods research pragmatically: Implications for the rediscovery of pragmatism as a research paradigm. *Journal of Mixed Methods Research* 4(1): 6-16.

Feldman, A.L. & Matjasko, J.L. 2005. The Role of School-Based Extracurricular Activities in Adolescent Development: A Comprehensive Review and Future Directions. *Review of Educational Research,* 75 (2): 159 – 210.

Field, A. 2009. Discovering Statistics Using SPSS. 3rd Edition, Sage Publications Ltd., London.

Fletcher, A.C., Nickerson, P.F. & Wright, K.L. 2003. Structured Leisure activities in middle childhood: Links to well-being. *Journal of Community Psychology,* (31): 641-659.

Foley, B. 2018. Probability Sampling vs. Non-Probability Sampling. Available online at https://www.surveygizmo.com/resources/blog/probability-sampling/. Accessed date, 15 April 2020.

Foot, K. 2014. Cultural-Historical Activity Theory: Exploring a Theory to Inform Practice and Research. Department of Communication, University of Washington.

Forbes. 2017. Seven Challenges Facing Higher Education. Available online at https://www.forbes.com/sites/ccap/2017/08/29/seven-challenges-facing-higher-education/#13d850ef3180. Accessed date, 17 January 2020.

Formaro, A. 2014. Extracurricular overload: when is enough too much? Available online at https://myria.com/extra-curricular-overload-when-is-enough-too-much. Accessed date, 14 January 2020.

Forneris, T., Camire, M. & Williamson, R. 2014. Extracurricular Activity Participation and the Acquisition of Developmental Asserts: Differences Between Involved and Noninvolved Canadian High School Students. *Applied Developmental Science,* 19(1): 47 – 55.

Foubert, J.D. & Grainger, L.U. 2006. Effects of involvement in Clubs and Organisations on the Psychosocial Development of First-Year and Senior Students. *NASPA Journal.* 43 (1): 166 – 182.

Fouka, G. & Mantzorou, M. 2011. What are the Major Ethical Issues in Conducting Research? Is there a Conflict between the Research Ethics and the Nature of Nursing? *Health Science Journal, 5(1):3-14.*

Frambach, J.M., Van der Vleuten, C.P.M., & Durning, S.J. 2013. AM Last Page: Quality Criteria in Qualitative and Quantitative Research. *Academic Medicine,* 88(4):552.

Francis, J.M. & Morojele, N. 2019. Religiosity, risky behaviour and young people: a South African case study. Available online at https://www.wits.ac.za/news/latest-news/opinion/2019/2019-02/religiosity-risky-behaviour-and-young-people-a-south-african-case-study.html. Accessed date, 07 January 2020.

Francisco, D.M.T. (n.d). Extracurricular activities affect the academic standing of students. Available online at http://www.academia.edu/4218306/EXTRA_CURRICULAR_ACTIVITIES_EFFECTS. Accessed date, 19 December 2017.

Franzese, M. & Luliano, A. 2019. Correlation Analysis. Available online at https://reader.elsevier.com/reader/sd/pii/B9780128096338203580?token=CE30AB71BCBE1A53736FDCA1161AA3444D4C991710A11F32B4B3C59722BD18E75E620F1700FECD5F3E6DED452D4EBE3F. Accessed date, 22 November 2020.

Fredricks, J. A. 2012. “Extracurricular Participation and Academic Outcomes: Testing the Over-Scheduling Hypothesis.” *Journal of Youth and Adolescence,* 41(3): 295–306.

Freeman, R. 2017. The Relationship between Extracurricular Activities and Academic Achievement. Dissertation, National College of Education, National Louis University.

Fujita, K. (n.d). The Effects of Extracurricular Activities on the Academic Performance of Junior High Students, *URJHS* (5):1

Gardner, W. 2016. Extracurricular activities deserve greater respect. Available online at https://www.japantimes.co.jp/opinion/2016/03/08/commentary/japan-commentary/extracurricular-activities-deserve-greater-respect/#.XiGovMgzbIU. Accessed date, 17 January 2020.

Garrison, D.R. 2018. Self-directed learning and distance education. Available online at https://www.researchgate.net/publication/309173937_Self-directed_learning_and_distance_education. Accessed date, 12 October 2018.

Geertz, C. 1973. Thick description: Toward an interpretative theory of culture. In C. Geertz (Ed.), The interpretation of cultures (pp. 3–30). New York, NY: Basic Books.

Gil, N. 2014. Do athletes make better students? Available online at https://www.theguardian.com/education/2014/aug/04/sport-at-university-do-athletes-make-better-students. Accessed date, 08 February 2020.

Gill, J. 2020. 4 Ways to balance academic and extracurricular activities. Available online at http://business360.fortefoundation.org/4-ways-to-balance-academics-and-extracurricular-activities-2/. Accessed date, 06 December 2020.

Gill, P., Stewart, K., Treasure, E. & Chadwick, B. 2008. Methods of data collection in qualitative research: interviews and focus groups. *British Dental Journal,* 204 (6):291-295.

Gitlin, J. 2019. How to use cross tabulation to understand different groups of respondents. Available online at https://www.surveymonkey.com/curiosity/using-cross-tabulation-to-understand-respondents/. Accessed date, 10 May 2020.

Golafshani, N. 2003. Understanding Reliability and Validity in Qualitative Research. *The Qualitative Research,* 8(4):597-606.

Grant, A. 2020. What is Data Analysis and why is it important? Available online at https://www.makeuseof.com/tag/what-is-data-analysis/. Accessed date, 09 May 2020.

Gravetter, F.J. & Forzano, L.B. 2003. Research methods for behavioural sciences. Belmont: Wadsworth/Thomson Learning. *South African Journal of Occupational Therapy,* 45 (1). 118 – 120.

GreatSchools Staff. 2012. How important is school size. Available online at https://www.greatschools.org/gk/articles/school-size/. Accessed date, 22 December 2019.

Gresse, A., & Seaman, J.M. 2017. Exploring the risk behaviour of learners in South African private Christian Secondary School. *KOERS,* 82(1): 1 – 13.

Gretschel, P., Ramugondo, E. & Galvaan, R. 2015. An introduction to Cultural Historical Activity Theory as a theoretical lens for understanding how occupational therapists design interventions for persons living in low-income conditions in South Africa.

Guest, A. & Schneider, B. 2003. Adolescents' Extracurricular Participation in Context: The Mediating Effects of Schools, Communities, and Identity. *Sociology of Education,* 76 (2): 89-109.

Guevremont, A., Kohen. D. & Findlay, L. (n.d). Do high levels of extracurricular activities help or hinder child development? Extracurricular Activity Participation. Canadian Council on Learning. Available online at http://en.copian.ca/library/research/ccl/do_high_levels_extracurricular/do_high_levels_extracurricular.pdf. Accessed date 23 December 2019.

Gwathney, J.M. 2014. An exploratory investigation of extracurricular activity and academic achievement. *Theses and Dissertations*. 347. Available online at http://rdw.rowan.edu/etd/347. Accessed date, 17 December 2017.

Gyanunlimited. 2013. A Hub of Alternative Medicine & Holistic Health. Available online at www.gyanunlimited.com. Accessed date, 13 December 2017.

Haliimah, N. 2010. An investigation of the management of extracurricular programmes in selected inner-city secondary school: A case study. Dissertation, University of South Africa.

Hallas, J. 2015. Getting Students Involved: The Importance of Extracurricular Activities. Available online at https://attendengageinvest.wordpress.com/2015/11/16/getting-students-involved-the-importance-of-extracurricular-activities/. Accessed date, 06 January 2020.

Hampton, C. & Vilela, M. 2017. Conducting Surveys: Community Tool Box. Available online at http://ctb.ku.edu/en/table-of-contents/assessment/assessing-community-needs-and-resources/conduct-surveys/main. Accessed date, 30 December 2017.

Harrell, M.C. & Bradley, M.A. 2009. Data Collection Methods: Semi-Structured Interview and Focus Groups. Rand National Defence Research Institute.

Harveyz, A. 2019. Self-Directed Learning – The Steps to Successful Outcomes. Available online at https://naturalpod.com/self-directed-learning-the-steps-to-successful-outcomes/. Accessed date, 17 November 2020.

Heck, A.O. 1933. Review of Educational Research. Chapter Seven. Extra-Curriculum Activities. Activities in Colleges and Universities. *SAGE Journals,* 3(3): 222-233.

Heyning, L. 2010. The enhancement of musical and other learning for both teachers and students through a weekly choir session. *Australian Journal of Music Education,* (1): 58 – 70.

Hoch, D. 2015. Sharing Students in Athletics and Performing Arts. Available online at https://www.nfhs.org/articles/sharing-students-in-athletics-and-performing-arts/. Accessed date, 17 January 2020.

Holland, A. & Andre, T. 1987. Participation in Extracurricular Activities in Secondary Schools: What is Known, What Needs to Be Known? *Review Educational Research,* 57(4): 437 – 466.

Holt, N.L., Knight, C.J. & Zukiwski, P.A. 2012. Female Athletes' Perception of Teammate Conflict in Sport: Implications for Sport Psychology Consultants. ResearchGate.

Hou, C. 2018. Why Extracurricular Activities Are Especially Important for International Students. Available online at https://eduhup.com/blog/why-extracurricular-activities-are-especially-important-international-students. Accessed date, 08 January 2020.

Houtz, E. 2017. The Importance of Unstructured Free Play. Available online at http://www.carolinaparent.com/CP/The-Importance-of-Unstructured-Free-Play/. Accessed date, 04 August 2019.

Howard, C. 2019. Understanding Probability vs. Non-Probability Sampling: Definitive Guide. Available online at https://www.cvent.com/en/blog/hospitality/understanding-probability-vs-non-probability-sampling. Accessed date, 19 April 2020.

Hurst, W. 2016. End the Extracurricular Arms Race. Available online at https://www.insidehighered.com/views/2016/04/11/extracurriculars-are-robbing-students-their-education-essay. Accessed date, 16 January 2020.

Hurtado, S. & Ponjuan, L. 2005. Latino educational outcomes and the campus climate. *Journal of Hispanic Higher Education*, 4(3):235-251.

Igira, F. T. & Gregory, J. 2009. Cultural Historical Activity Theory. In Y. K. Dwivedi, B. Lal, M. D. Williams, S. L. Schneberger, & M. R. Wade (Eds.), Handbook of Research on Contemporary Theoretical Models in Information Systems (pp.434-454): IGI Global.

Imenda, S. 2014. Is There a Conceptual Difference between Theoretical and Conceptual Frameworks? *J Soc Sci,* 38 (2):185 – 195.

Ishak, N.M. & Bakar, A.Y.A. 2014. Developing Sampling Frame for Case Study: Challenges and Conditions. *World Journal of Education,* 4(3):29 - 35.

Iucu, R., & Platis, M. 2012. Extra-curriculum activities – challenges and opportunities*. Procedia Social Behavioural Sciences, (*46): 4249 – 4252.

Ivaniushina, V.A. & Aleksandrov, D.A. 2014. Socialization through Informal education: The Extracurricular Activities of Russian School student. *Educational Studies, Moscow,* (4): 174 – 196.

Ivaniushina, V.A. & Zapletina, O.O. 2015. Participation in Extracurricular Activities and Development of Personal and Interpersonal and Interpersonal Skills Adolescent. *Journal of Siberian Federal University. Humanities & Social Sciences,* (11): 2408-2420.

Ivankova, N.V., Creswell, J.W. & Stick, S.L. 2006. Using Mixed-Methods Sequential Explanatory Design: From Theory to Practice. *Field Method,* 18 (1):3-20.

Jack, S. 2008. Guidelines to Support Nurse-Researchers Reflect on Role Conflict in Qualitative Interviewing. *Open Nurs j,* 2:58-62.

Jackson, N. 2017. The role of Extracurricular Activities in a Student's Development. Available online at https://www.theeducator.com/blog/role-extracurricular-activities-students-development/. Accessed date, 12 December 2019.

Jamal, A. 2012. Developing Interpersonal Skills and Professional Behaviours through Extracurricular Activities Participation: A Perception of King Abdulaziz University Medical Students. *JKAU: Med. Sci,* 19(4): 3 – 24.

Jamshed, S. 2014. Qualitative research method-interviewing and observation. *J Basic Clin Pharm,* 5 (4):87-88.

Jansen, J.D. 2008. The Theoretical or Conceptual Framework. Available online at http://www.compmat.wcape.school.za/med/medthesis_files/framework_2.doc. Accessed date, 17 March 2018.

Jayanthi, S.V., Balakrishnan, S., Ching, A.L.S., Latiff, N.A.A., & Nasirudeen, A.M.A. 2014. Factors Contributing to Academic Performance of Students in a Tertiary Institution in Singapore. *American Journal of Educational Research,* 2(9): 752-758.

Jeong, L. 2016. Description of Leisure Activities. Available online at https://www.linchomestudy.ca/Online/WAH/article.aspx?a=181&y=2016-07-01. Accessed date, 09 December 2019.

Jiang, X. & Peguero, A.A. 2017. Emmigration, Extracurricular Activity, and the role of Family. *Education and Urban Society,* 49 (3): 314 – 340.

Johannesson, P. & Perjons, E. 2014. An Introduction to Design Science: Research Paradigm. Available online at https://link.springer.com/chapter/10.1007/978-3-319-10632-8_12#citeas. Accessed date, 04 July 2020.

John-Langba, J. 2007. The relationship of sexual and gender-based violence to sexual-risk behaviour among refugee women in Sub-Saharan Africa. *Word Health Popul,* 9(2): 26-37.

Johnston, H. L. 2013. The Effects of Extracurricular Activities on Academic Performance and Retention in the Middle Tennessee State University Horse Science Program. Thesis, Middle Tennessee State University.

Jones, R.E., Bennett, R. & Gray, J. 2019. Students Activities: Overview and Financing. Available online at https://education.stateuniversity.com/pages/2459/Student-Activities.html. Accessed date, 14 December 2019.

Joo, K.P. 2014. A Cultural-Historical Activity Theory Investigation of Contradictions in Open and Distance Higher Education among Alienated Adult Learners in Korea National Open University. The Pennsylvania State University, USA. Available online at http://www.irrodl.org/index.php/irrodl/article/view/1605/2766. Accessed date, 01 December 2020.

Jory, J. & Stanford, M. 2016. Researching Yourself: An Overview of Research Methods. Salt Lake Community College. Available online at https://www.slideshare.net/jjory7/researching-yourself-an-overview-of-research-methods-65138190?next_slideshow=1. Accessed date, 24 April 2020.

Jovancic, N. 2019a. Data Collection Methods for Obtaining Quantitative and Qualitative Data. Available online at https://www.leadquizzes.com/blog/data-collection-methods/. Accessed date, 25 April 2020.

Jovancic, N. 2019b. How to Use T-Tests to Analyze Survey Results (T-Test Calculator Guide). Available online at https://www.leadquizzes.com/blog/how-to-use-t-test-calculator-guide/. Accessed date, 19 January 2020.

Kabir, S.M.S. 2016. Methods of data collection. Available online at https://www.researchgate.net/publication/325846997_METHODS_OF_DATA_COLLECTION/citation/download. Accessed date, 25 April 2020.

Kaiser, K. 2009. Protecting Respondent Confidentiality in Qualitative Research. *Qual Health Res,*19(11): 1632–1641.

Kapur, R. 2019. Significance of Self-directed learning. Available online at https://www.researchgate.net/publication/335096519_Significance_of_Self-Directed_Learning/link/5d4e75b1a6fdcc370a89df23/download. Accessed date 08 February 2020.

Kariyana, I., Maphosa, C. & Mapuranga. 2012. The Influence of Learners' Participation in School Co-curricular Activities on Academic Performance: Assessment of Educators' Perceptions. *J Soc Sci.* 32(2): 137 -146.

Karp, M.M. & Stacey, G.W. 2013. What We Know About Nonacademic Student Supports. Community College Research Centre, Teachers College, Columbia University.

Kavallos, H. 2015. The effects of Extracurricular Involvement on CEGEP student Success: A Correlational study. Master of Arts, Concordia University.

Kawulich, B.B. 2004. Data Analysis Techniques in Quantitative Research. Available online at https://www.researchgate.net/publication/258110388_Qualitative_Data_Analysis_Techniquess. Accessed date, 30 December 2017.

Kaya, H. & Seleti, Y.N. 2013. African indigenous knowledge systems and relevance of higher education in South Africa. *The International Education Journal: Comparative Perspectives,* 12(1): 30 – 44.

Kayton, B. 2018. From boomers to millennials: The generation gap explained. Available online at https://themediaonline.co.za/2018/10/from-boomers-to-millennials-the-generation-gap-explained/. Accessed date, 23 December 2019.

Keenan, L. (n.d) The Effect of Extracurricular Activities on Career Outcomes: A literature review. *Student Psychology Journal,* (1): 149 – 162.

Kelly-Hall, C. 2010. The role of student support services in encouraging student involvement and its impact on student perceptions and academic experiences. Dissertation. Graduate School of Clemson University.

Khayyat, M. 2016. A Proposed Model for the Fourth Generation of Activity Theory to be Applied on the Smart City Research. A proposed model of AT for Smart City Research. Thirty Seventh International Conference on Information Systems, Dublin.

Khodabandehlou, M., Jahandar, S., Seyedi, G. & Abadi, R.M.D. 2012. The Impact of Self-Directed Learning Strategies on Reading Comprehension. *International Journal of Scientific & Engineering Research,* 3(7): 1 – 9.

Kim, J.Y., Gook, D.H., Kim, S.H., & Yoon, Y.B. 2016. Effects of Physical Self Efficacy and Self-Regulated Learning on Achievement Goal of Students Participated in School Sports Club. *Indian Journal of Science and Technology,* (9)48: 1 – 5.

Kirsch, S. 2013. Are teachers promoting extracurricular activities to low-achieving students? Thesis. State University of New York University, New York.

Kivunja, C. & Kuyini, A.B. 2017. Understanding and Applying Research Paradigms in Educational Contexts. *International Journal of Higher Education,* 6 (5).

Klenton, W. & Scott, G. 2020. Population Definition. Available online at https://www.investopedia.com/terms/p/population.asp. Accessed date, 03 April 2020.
Klopper, H. 2008. The qualitative research proposal. *Curations,* 31(4):62-72.

Knowles, M.S. 1984. Andragogy in action. Applying modern principles of adult learning. San Francisco, CA: Jossey Bass.

Kothari, C.R. 2004. Research Methodology. *Methods and Techniques.* New Age International Publishers.

Kovelenko, N.A. & Smirnova, A.Y. 2015. Self-directed learning through creative activity of students. *Procedia: Social and Behavioural Sciences,* (166): 393 – 398.

Kuh, G.D. & Pike, G.R. 2005. A typology of student engagement for American Colleges and Universities. *Research in Higher Education,* 46 (2): 185 -200.

Kumar, K. & Naik, L. 2019. How to create an online survey by using Google Forms? *International Journal of Library and Information Studies,* Vol. 6(3):118-126.

Kurt, S. 2020. Vygotsky's Zone of Proximal Development and Scaffolding. Available online at https://educationaltechnology.net/vygotskys-zone-of-proximal-development-and-scaffolding/. Accessed date, 29 November 2020.

Kusano, S.M. 2014. Understanding the Educational Significance of Non-Curricular Engineering Design Experiences. Blacksburg, VA.
Kwan, M., Bobko, S., Faulkner, G., Donnelly, P. & Cairney, J. 2014. Sport participation and alcohol and illicit drug use in adolescents and young adults: A systematic review of longitudinal studies. *Addictive Behaviour,* (39): 497 – 506.

Lawhorn, B. 2008. Extracurricular Activities. Occupational Outlook Quarterly. Available online at https://www.bls.gov/careeroutlook/2008/winter/art02.pdf. Accessed date, 09 July 2019.

Lay, J.C. 2007. Smaller Isn't Always Better: School Size and School Participation Among Young People. *Social Science Quarterly,* 88 (3): 790 – 815.

Le, T. 2013. Does participation in extracurricular activities reduce engagement in risky behaviours? Youth in Focus Project Discussion Paper Series. The Australian National University.

Lebied, M. 2018. A Guide To The Methods, Benefits & Problems of The Interpretation of Data. Available online at https://www.datapine.com/blog/data-interpretation-methods-benefits-problems. Accessed date, 30 October 2020.

Lehman, B. 2017. Supporting gender equality in extracurricular activities and the impact on female bullying victimization in school. *Social Psychology of Education,* (20): 445 – 470.

Leonard, K. 2018. The Importance of Obeying the Rules and Regulations in the Workplace. Available online at https://smallbusiness.chron.com/importance-obeying-rules-regulations-workplace-18690.html. Accessed date, 19 November 2020.

Lewis, C. P. 2004. The relation between extracurricular activities with academic and social competencies in school age children: A meta-analysis. Texas A&M University.

Liamputtong, P. 2009. Qualitative data analysis: conceptual and practical considerations. *Health Promotion Journal of Australia,* 20(2):133-139.

Long, D. 2012. The foundations of student affairs: A guide to the profession. In L. J. Hinchliffe & M. A. Wong (Eds.), Environments for student growth and development: Librarians and student affairs in collaboration. Chicago: Association of College & Research Libraries.

Loretto, P. 2019. Balancing Between College, Work, and Personal Life. Available online at https://www.thebalancecareers.com/creating-work-life-balance-for-college-students-1986743. Accessed date, 05 January 2020.

Loyens, E.M.M., Magda, J. & Rikers, R.M.J.P. 2008. Self-Directed Learning in Problem-Based Learning and its Relationships with Self-Regulated Learning. *Educ Psychol Rev,* (20):411–427.

Loyens, E.M.M., Magda, J. & Rikers, R.M.J.P. 2008. Self-Directed Learning in Problem-Based Learning and its Relationships with Self-Regulated Learning. *Educ Psychol Rev,* 20:411–427.
Lu, Z.L. & Yuan, K. 2010. Welch's t-test. In book: Encyclopedia of research design (pp.1620-1623) Publisher: Thousand Oaks, CA: Sage Editors: N. J. Salkind.

Lunenburg, F.C. 2010. Extracurricular Activities. *Schooling,* (1)1:1 – 4.

Lynch, M. 2016. Social constructivism in education. Available online at https://www.theedadvocate.org/social-constructivism-in-education/. Accessed date, 26 January 2020.

Maestas, R., Vaquera, G.S. & Zehr. M. 2007. Factors impacting sense of belonging at a Hispanic-serving institution. *Journal of Hispanic Higher Education*, 6(3):237-256.

Magliocco, J. & Duffy, B. 2019. How smart teens from lower-income families can go beyond grade, SATs to get into top colleges. Available online at https://www.cnbc.com/2019/07/03/how-smart-teens-from-lower-income-families-can-boost-college-chances.html. Accessed date, 15 December 2019.

Maguire, M. & Delahunt, B. 2017. Doing a Thematic Analysis: A Practical, Step-by-Step Guide for Learning and Teaching Scholars. *AISHE J,* 8(3):3351-33514.

Mahoney, J.L., & Cairns, R.B. 1997. Do extracurricular activities protect against early school dropout? *Developmental Psychology,* 33(2): 241 – 253.

Mahoney, J.L., Eccles, J.S. & Larson, R.W. 2004. Process of adjustment in organised out-of-school activities: Opportunities and risks. *New Directions for Youth Development,* (101): 115 – 144.

Majid, U. 2018. Research Fundamentals: Study Design, Population, and Sample Size. *URNCST Journal,* Research in Earnest. 1 – 7.

Manikandan, S. 2011. Frequency Distribution. *J Pharmacol Pharmacother*. 2(1):54-56.

Marini, A. 2016. Building Students' Character through Extracurricular Activities. *Advances in Social Science, Education and Humanities Research,* (66): 266-268.

Marsh, H. & Kleitman, S. 2002. Extracurricular School Activities: The Good, the Bad, and the Nonlinear. *Harvard Educational Review*, 72 (4): 464-515.

Marsh, H.W. 1992. Extracurricular Activities: Beneficial Extension of the Traditional Curriculum or Subversion of Academic Goals. *Journal of Educational Psychology,* (84):553 – 562.

Marshall, M.N. 1996. Sampling for qualitative research. *Family Practice,* 13(6):522-525.

Martin, C. 2016. Qualitative Research Methods: Interviewing. Mini-Master Class.

Martin, L.A. 2000. Effective data collection, Total Quality Management, 11(3): 341-344.

Martinez, A., Coker, C., McMahon, S.D., Cohen, J. & Thapa, A, 2016. Involvement in Extracurricular Activities: Identifying Differences in Perceptions of School Climate. *The Educational and Developmental Psychologist,* 33(1): 70 – 84.

Masciotra, D. (n.d). Social constructivism: A theoretical framework for a competency-based curriculum. Available online at https://www.academia.edu/14596194/Social_Constructivism_a_Theoretical_Framework_For_a_Comptency-based_Curriculum._General_basic_education_curriculum._Minist%C3%A8re_de_l%C3%A9ducation_des_loisirs_et_du_sport. Accessed date, 26 January 2020.

Mason, A. 2017. Do schools need to have more extracurricular activities on offer to young people? Available online at https://actiontutoring.org.uk/do-schools-need-to-have-more-extracurricular-activities/. Accessed date, 04 January 2020.

Massoni, E. 2011. Positive Effects of Extra-Curricular Activities on Students. *ESSAI,* 9(27): 84-87.

McCabe, J., Dupere, V., Dion, E., Thouin, E., Archambault, I., Dufour, S., Denault, A.S., Leventhal, T. & Crosnoe, R. 2018. Why do extracurricular activities prevent dropout more effectively in some high schools than in others? A mixed-method examination of organizational dynamics. *Applied Developmental Science,* DOI: 10.1080/10888691.2018.1484746.

McClelland, C. & Giles, A.R. 2014. Street-involved youth's unstructured leisure: activities and their social consequences. *Leisure/Loisir,* 38 (2):119 – 138.

McCracken, J.D. & Barcinas, J.D.T. 1991. Differences between Rural and Urban Schools, Student Characteristics, and Student Aspirations in Ohio. *Journal of Research in Rural Education,* 7(2):29-40.

McGrath, C., Palmgren, P.J. & Liljedahl, M. 2019. Twelve tips for conducting qualitative research interviews. *Medical Teacher,* 41(9):1002-1006.

McLeod, S. 2018. Questionnaire: Definition, Examples, Design and Types. Available online at https://www.simplypsychology.org/questionnaires.html. Accessed date, 10 May 2020.

McNeil, L.M. 2013. Contradictions of control: School structure and school knowledge. Routledge.

Meier, A., Hartmann, B.S. & Larson, R. 2018. A Quarter Century of Participation in School-Based Extracurricular Activities: Inequalities by Race, Class, Gender and Age? *Journal of Youth and Adolescence*, 47(6):1299 – 1316.

Meier, C. & Hartell, C. 2009. Handling cultural diversity in education in South Africa. *SA-EDUC JOURNAL,* 6(2):180 – 192.

Mello, Z.R. & Worrell, F.C. 2008. Gender Variation in Extracurricular Activity Participation and Perceived Life Chances in Trinidad and Tobago Adolescents.

Mendez, R. 1984. Extracurricular Activities in Today's School – Have we Gone Too Far?

Mentz, E. & De Beer, J. (n.d.). Cultural-Historical Activity Theory as a lens in mixed methods research on self-directed learning. Research Unit Self-Directed Learning, Faculty of Education, North-West University, Potchefstroom, South Africa.

Mentz, E. & De Beer, J. 2017. The affordances of Cultural-Historical Activity Theory as a research lens in studying education from a socio-economic perspective. IISES, 4th Teaching and Education Conference, Venice.

Mentz, E. & De Beer, J. 2019a. 'The use of Cultural-Historical Activity Theory in researching the affordances of indigenous knowledge for self-directed learning,' in J. De Beer(ed), *Moral Issues in the Natural Sciences and Technologies (*NWU Self-directed Learning Series Volume 2), pp.49-86, AOSIS, Cape Town.

Mentz, E. & De Beer, J. 2019b. The affordance of change laboratories for improved sustainability and impact of in-service teacher professional development programmes. IISES, 8th Teaching & Education Conference, Vienna.

Mentz, E., & Van Zyl, S. 2016. Introducing cooperative learning: Students' attitudes towards learning and the implications for self-directed learning. *Journal of Education*, (64):79-109.

Merriam, S.B., & Tisdell, E.J. 2016. Qualitative research. San Francisco: Jossey-Bass.

Meyer, E.R. 2007. From activity to learning: using cultural historical activity theory to model school library programmes and practices. *Information Research,*12 (3):1.

Meyers, J. & Perez, L. 2004. Structured Extracurricular Activities among Adolescents: Finding and Implications for School Psychologists. *Psychology in the School,* 41(1).31- 41.

Miettinen, R. 2001. 'Artifact Mediation in Dewey and in Cultural-Historical Activity Theory.' *Mind, Culture, and Activity*, 8(4):297 — 308.

Moekwa, B.C. 2014. The role of the principal in leading and supporting cultural activities in the school. Dissertation. University of Pretoria.

Moraka, R. E. 2013. Students Affairs and Extracurricular Development (SAED) Launch. Unpublished. Tshwane University of Technology.

Morgan, D.L. 2018. Research Gate. Available online at https://www.researchgate.net/post/What_is_the_best_way_of_sampling_in_an_explanatory_sequential_mixed_methods_research_study. Accessed date, 19 April 2020.

Morley, J. 2014b. Academic phrasebank: A compendium of commonly used phrasal elements in academic English in PDF format, 2014b edition.

Morris, E. 2019. Participation in Extracurricular Activities and Academic Achievement: A Comprehensive Review. Masters Theses & Special Project, Paper 3097.

Mosbey, M. 2016. How to Shift to a Student-Centered Approach in Parent-Teacher Conferences. Available online at https://www.edsurge.com/news/2016-05-30-shifting-to-a-student-centered-approach-in-parent-teacher-conferences. Accessed date, 10 February 2020.

Mostafa, A. E. 2014. Ethics in Scientific Research. Ethical Principles of Psychologists and Code of Conduct, Munich, GRIN Verlag. Available online at https://www.grin.com/document/285936. Accessed date, 20 May 2020.

Mostafavi, B. 2016. Pay-to-Play May Keep Some Kids out of School Activities. Available online at https://healthblog.uofmhealth.org/childrens-health/pay-to-play-may-keep-some-kids-out-of-school-activities. Accessed date, 17 January 2020.

Mtika, P. 2019. High School Students' Perceptive of Participating in a STEM-Related Extracurricular Programme. Available online at https://www.frontiersin.org/articles/10.3389/feduc.2019.00100/full. Accessed date, 22 December 2019.

Muller, C.L. 2015. Measuring School Context. *AERA Open*, 4 (1): 1 – 14.

Murley, S. 2019. How we removed barriers to extracurriculars. Available online at https://www.eschoolnews.com/2019/06/04/how-we-removed-barriers-to-extracurriculars/. Accessed date, 12 November 2020.

Mweli, P. 2018. Indigenous Stories and Games as Approaches to teaching within the classroom. Thesis. University of KwaZulu-Natal.

Naik, N. 2018. Importance of extracurricular activities in school life. Available online at https://yourstory.com/mystory/d48a322b39-importance-of-extracur. Accessed date, 17 January 2020.

Ndiko, L. 2018. Indigenous Games. Available online at https://www.etacollege.com/indigenous-games/. Accessed date, 12 January 2020z.

Ndukwu, D. 2019a. Questionnaire: Types, Definition, Examples & How to Design Your Own. Available online at https://www.kyleads.com/blog/questionnaire/. Accessed date, 07 July 2020.

Ndukwu, D. 2019b. Likert Scale: Definition, Examples, & Sample Questions You Can Use. Available online at https://www.kyleads.com/blog/likert-scale/. Accessed date, 07 July 2020.

Neville, C. 2007. Introduction to Research and Research Methods. Effective Learning Service. Bradford University, UK.

Nguyen-Trung, K. 2018. Research Gate. Available online at https://www.researchgate.net/post/What_is_the_best_way_of_sampling_in_an_explanatory_sequential_mixed_methods_research_study. Accessed date, 19 April 2020.

Ngwane, K. & Sikhakhane, A. 2019. Effects of time management on the pass rate of undergraduate and postgraduate office management and technology students. *11th International Conference on Education and New Learning Technologies,* Durban University of Technology, South Africa.

Nicole, 2017. The role of extracurricular activities in a student's development. Available online at https://www.theeducator.com/blog/role-extracurricular-activities-students-development/. Accessed date, 17 January 2020.

Nigatu, T. 2009. Qualitative Data Analysis. Available online at https://www.slideshare.net/tilahunigatu/qualitative-data-analysis-11895136. Accessed date, 12 May 2020.

Nijhawan, L. P., Janodia, M. D., Muddukrishna, B. S., Bhat, K. M., Bairy, K. L., Udupa, N. & Musmade, P. B. 2013. Informed consent: Issues and challenges. *Journal of advanced pharmaceutical technology & research*, *4*(3), 134–140.

Nikkie, W. 2009. Impact of Extracurricular Activities on Students. (Thesis for the Science Degree). Menomonie, University of Wisconsin-Stout, School Counselling.

Nkopodi, N. & Mosimege, M. 2009. Incorporating the indigenous game of morabaraba in the learning of mathematics. *South African Journal of Education,* (29): 377-392.

Norman, L. 2018. Reasons Why Kids Shouldn't Have Extracurricular Activities. Available online at https://www.hellomotherhood.com/reasons-why-kids-shouldnt-have-extracurricular-activities-9727323.html. Accessed date, 16 January 2020.

Novick, G. 2008. Is There a Bias Against Telephone Interviews in Qualitative Research? *Res Nurs Health*. 31(4): 391–398.

O'Dea, J.W. 1994. The effect of extracurricular activities on academic achievement. (Thesis for the Degree Specialist of Education). Iowa, Drake University, School of Education.

Oberle, E., Ji, X.R., Magee, C.M., Guhn, M., Schonnert-Reichl, K.A. & Gadermann, A.M. 2019. Extracurricular activity profiles and wellbeing in middle childhood: A population-level study. Available online at https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0218488. Accessed date, 24 December 2019.

Obiakor, F.E. 2010. School Dropout Prevention. Available online at https://www.sciencedirect.com/topics/medicine-and-dentistry/school-dropout. Accessed date, 07 January 2020.

OECD. 2013. PISA 2012 Results: What Makes Schools Successful? Resources, Policies and Practice (Volume IV). Available online at https://www.oecd.org/pisa/keyfindings/pisa-2012-results-volume-IV.pdf. Accessed date, 19 December 2017.

Okoro, C.O. & Amadioha, S.W. 2016. Using Extra Curricular Activities to Develop Social Morality among Lower Secondary School Students. ResearchGate.

Olato, S. 2018. The Neglect of Extracurricular Activities. Available online at https://www.kaieteurnewsonline.com/2018/01/28/the-neglect-of-extra-curricular-activities/. Accessed date, 04 January 2020.

Onwuegbuzie, A.J. & Combs, J.P. 2011. Data Analysis in Mixed Research: A Primer. *International Journal of Education*, 3(1): 1 – 25.

Onwuka, G.O., Oladele, O.M. & Zuoyu, Z. 2019. Unveiling the Experiences of Student Participation In Extracurricular Activities on Campus: A Case Study In University of Cape Coast, Ghana. *Journal of the International Academy for Case Studies,* 25(4): 1 – 13.

Osae, C. 2015, September, 02. How to balance sports and academics. *The New Times*, p.1. Available online at https://www.newtimes.co.rw/section/read/192120. Accessed date, 07 December 2019.

Ozcebe, H., Uner, S., Tezcan, S., Erbaydar, N.p. & Teletar, G. 2012. Risky Behaviours of University Students: A Cross-Sectional Study. *Turkish Journal of Public Health,* 10(1): 1 -12.

Padgett, D.K. 2014. Data Analysis and Interpretation. In: Qualitative and Mixed Methods in Publish Health. SAGE Publications, Inc. Thousand Oaks.

Pahwa, A. 2019. Questionnaire: Definition, Types, Examples & How To Design. Available online at https://www.feedough.com/what-is-questionnaire/. Accessed date, 10 May 2020.

Patel, S. 2015. The research paradigm – methodology, epistemology and ontology – explained in simple language. Available online at http://salmapatel.co.uk/academia/the-research-paradigm-methodology-epistemology-and-ontology-explained-in-simple-language/. Accessed date, 04 July 2020.

Pearce, K. 2014. How to create your own self-directed learning plan. Available online at https://www.diygenius.com/how-to-create-a-self-directed-learning-plan/. Accessed date, 27 November 2020.

Peersman, G. 2014. Overview: Data Collection and Analysis Methods in Impact Evaluation, Methodological Briefs: Impact Evaluation 10, UNICEF Office of Research, Florence.

Perera, S. 2018. Research paradigms. Workshop on Research Methodology. Available online at http://www.natlib.lk/pdf/Lec_02.pdf. Accessed date, 04 July 2020.

Perez, E. 2019. What is Data Analysis and its Methods? Available online at https://www.utreee.com/what-is-data-analysis-and-its-methods%EF%BB%BF/. Accessed date, 09 May 2020.

Perneger, T.V., Courvoisier, D.S. Hudelson, P.M. & Gayet-Ageron, A. 2014. Sample size for pre-tests of questionnaires: Brief Communication. Springer International Publishing, Switzerland.

Petro, L. 2017. How to Put Self-Directed Learning to Work in Your Classroom. Available online at https://www.edutopia.org/discussion/how-put-self-directed-learning-work-your-classroom. Accessed date, 17 November 2020.

Petrova, V., Dewing, J. & Camilleri. 2014. Confidentiality in participatory research: Challenges from one study. Nursing Ethics, SAGE Publication.

Pew Research Centre. 2015. Parenting in America: Outlook, worries, aspirations are strongly linked to financial situation. Available online at https://www.pewresearch.org/wp-content/uploads/sites/3/2015/12/2015-12-17_parenting-in-america_FINAL.pdf. Accessed date, 15 December 2019.

Phelan, C. & Wren, J. 2006. Exploring Reliability in Academic Assessment. Available online at https://chfasoa.uni.edu/reliabilityandvalidity.htm. Accessed date, 04 January 2018.

Phrasisombath, K. 2009. Sample size and sampling methods. Available online at https://www.gfmer.ch/Activites_internationales_Fr/Laos/PDF/Sample_size_methods_Phrasisombath_Laos_2009.pdf. Accessed date, 04 April 2020.

Pilcher, J.J., Morris, D.M., Bryant, S.A., Merritt, P.A. & Feigl, H.B. 2017. Decreasing Sedentary Behaviour: Effects on Academic Performance, Meta-Cognition, and sleep. Frontiers in Neuroscience.

Plucker, J.A. 2003. Exploratory and Confirmatory Factor Analysis in Gifted Education: Examples With Self-Concept Data. *Journal for the Education of the Gifted,* 27(1):20–35.

Powell, J.V. & Lee, S. 2004. Perceptions of preservice teachers about participation in extracurricular activities: Effects of simulated and real experience. *J. Educational Technology Systems,* 32 (2&3): 285 – 309.

Qatan, A. 2015. Phenomenological Research. Available online at https://www.slideshare.net/hamoorahamoor/phenomenological-research-47939423. Accessed date, 25 April 2020.

Rahim, R. 2019. Data Collection: Purpose, Methods, and Tools for Great Decision Making. Available online at https://upskillnation.com/data-collection/. Accessed date, 25 April 2020.

Rainer, P., Griffiths, R., Cropley, B. & Jarvis, S. 2015. Barriers to Delivering Extracurricular School Sport and Physical Activity in Wales: A Qualitative Study of 5X60 Officers' Views and Perspectives. *Journal of Physical Activity and Health,* (12): 245 – 252.

Rajasekar, S., Philominathan, P. & Chinnathambi, V. 2013. Research Methodology. Tamilnadu, India. Available online at https://arxiv.org/abs/physics/0601009v3. Accessed date, 05 January 2020.

Raju, V.N. & Harinarayana, N.S. 2016. Online survey tools: A case study of Google Forms. Paper presented at the National Conference on "Scientific, Computational & Information Research Trends in Engineering, GSSS-IETW, Mysore.

Ralph, B. & McNeal, J.R. 1999. Participation in High School Extracurricular Activities: Investigating School Effects. *Social Science Quarterly.* 80 (2): 291 -309.

Rawat, N., Rastogi, A., Jaiswal, K. & Nigam, A. 2014. Analysis of Relationship between Extracurricular Activities and Academic Performance by Computational Intelligence. CIPECH14.

Reed, L.K. 2014. Relationships Between Participation in Extracurricular Activities, ACT Scores, GPA, and Attendance in Select Public High Schools in Mississippi. Dissertations. 368. Available online at https://aquila.usm.edu/dissertations/368. Accessed date, 20 September 2020.

Rees, E. G. 2008. The Effects of Participation in Extracurricular Activities on Academic Performance in Secondary School Students. All Regis University Theses.

Regoniel, P.A. 2015. Quantitative methods: Meaning and Characteristics. *Empirical Research, Quantitative Research, Research.* Available online at http://simplyeducate.me/2015/01/03/quantitative-methods-meaning-and-characteristics/. Accessed date, 29 December 2017.

Research-Methodology. 2019. Qualitative Data Analysis. Available online at https://research-methodology.net/research-methods/data-analysis/qualitative-data-analysis/. Accessed date, 11 May 2020.

Rhalmi, M. 2014. Scaffolding and the construction of learning. Available online at https://www.myenglishpages.com/blog/scaffolding-and-the-construction-of-learning/. Accessed date, 26 January 2020.

Riessman, C.H. (n.d.). Narrative Analysis. Available online at http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.470.1392&rep=rep1&type=pdf. Accessed date, 02 January 2018.

Rivers, S. 2018. Extracurricular Activities and Academic Grades. Available online at https://classroom.synonym.com/extracurricular-activities-academic-grades-4906.html. Accessed date, 05 January 2020.

Roland, J. 2018. Negative Aspects of Extracurricular Activities. Available online at https://classroom.synonym.com/negative-aspects-extracurricular-activities-4920.html. Accessed date, 14 January 2020.

Rose, S., Spinks, N., & Canhoto, A. I. 2015. An introduction to using Microsoft Excel for quantitative data analysis. Management Research: Applying Principles.

Roth, W. 2007. Emotion at Work: A Contribution to Third-Generation Cultural-Historical Activity. *Theory, Mind, Culture, and Activity,* (14):1-2.

Rubin, R.S., Bommer, W.H. & Baldwin, T.T. 2002. Using Extracurricular Activity as an indicator of interpersonal skill: Prudent evaluation or recruiting malpractice? *Wiley Periodicals,* 41(4): 441 – 454.

Rupp, M. 2015. Social Constructivism as the Theoretical Underpinning for the Employment of Collaborative Approaches such as Lesson Study Towards Teacher Development. Tokai University, Japan.

Rusin, C. 2018. Shifting the View from Dropout to Stop-out. Available online at https://evolllution.com/attracting-students/customer_service/shifting-the-view-from-dropout-to-stopout/. Accessed date, 09 March 2020.

Ruvalcaba, N.A., Gallegos, J., Borges, A. & Gonzalez, N. 2016. Extracurricular activities and group belonging as a protective factor in adolescence. *Psicologia Educative,* (23): 45 – 51.

Sabuj, M.M.I., Datta, R.K. & Rafiq, M.N. 2018. The effect of extracurricular activities on the academic performance of the university students: Evidence from Hajee Mohammad Danesh Science and Technology University (HSTU), Dinajpur, Bangladesh. *International Journal of Science and Business.* 2(3):372 – 387.

Saele, R.G. 2016. Academic performance and student dropout. Department of Psychology, UiT The Arctic University of Norway.

Safvenbom, R., Wheaton, B. & Agans, J.P. 2018. 'How can you enjoy sports if you are under control by others?' Self-organized lifestyle sports and youth development. *Sport in Society,* 21(12): 1990 – 2009.

Saibovich, S.A. 2019. Extracurricular Activities: Success and Development of Communication Skills with the Role of Parents, Public and Home Work*. International Journal of Management Science and Business Administration,* 6(1):21-26.

Saldana, J. 2009. The coding manual for qualitative researchers. Thousand Oaks, CA: Sage Publishing.

Saldana, J. 2013. The Coding Manual for Qualitative Researchers. SAGE Publication.

Salmeen, A., Alkhaldi, N., Alshaber, R. & Majrashi. 2019. Extracurricular Activities and Student Performance at Jubail University College. *International Journal of Liberal Arts and Social Science,* 7(1): 55 – 61.

Saqib, N., Raheem, M.A., Iqbal, M., Salman, M. & Shahzad, T. 2018. Effects of extracurricular activities on students. Available online at https://www.researchgate.net/publication/327052180_Effects_of_Extracurricular_Activities_on_Students/link/5b754b7245851546c9097424/download. Accessed date, 12 February 2020.

Saylor Academy. 2012a. Survey Research: A Quantitative Technique. Available online at https://saylordotorg.github.io/text_principles-of-sociological-inquiry-qualitative-and-quantitative-methods/s11-survey-research-a-quantitative.html. Accessed date, 30 December 2017.

Saylor Academy. 2012b. Qualitative Interview Techniques and Considerations. Available online at https://saylordotorg.github.io/text_principles-of-sociological-inquiry-qualitative-and-quantitative-methods/s12-02-qualitative-interview techniqu.html. Accessed date, 30 December 2018.

Schleicher, A. 2020. The impact of Covid-19 on education: Insights from education at a glance 2020. OECD.

Sebald, H. 2010. Student participation in extracurricular activities, self-concept, academic self-concept, self-determination, and health habits during the middle school year and their impact on academic achievement (Order No. 3415641). Education Database; ProQuest Dissertations and Theses A&I: The Humanities and

Social Science Collections. (634434020). Available online at http://search.proquest.com/docview/634434020?accountid=8554. Accessed date, 15 December 2017.

Seligman, M.E.P. 2020. Flourish: A visionary new understanding of happiness and wellbeing. New York, NY: Simon and Schuster.

Semenov, A. 2013. The Relationship between Structured Time and Self-Directed Cognitive Control in Early Childhood. *Undergraduate Honors Theses. 490.* Available online at https://scholar.colorado.edu/honr_theses/490. Accessed date, 11 December 2019.

Seow, P.-S. & Pan, G. 2014. A Literature Review of the Impact of Extracurricular Activities Participation on Students' Academic Performance. *Journal of Education for Business*, 89 (7): 361-366.

Shabani, K., Khatib, M. & Ebadi, S. 2010. Vygotsky's Zone of Proximal Development: Instructional Implications and Teachers' Professional Development. English Language Teaching, 3(4): 237 – 248.

Shaffer, M.L. 2019. Impacting Student Motivation: Reasons for Not Eliminating Extracurricular Activities. *Journal of Physical Education, Recreation & Dance,* 90(7):6 – 14.

Shahiri, A.M., Husain, W. & Rashid, N.A. 2015. A review on predicting students' performance using data mining techniques. *Procedia Computer Science*, 72(2015), 414-422.

Shannon, C.S. 2006. Parents' Messages about the Role of Extracurricular and Unstructured Leisure Activities: Adolescents' Perceptions. *Journal of Leisure Research,* 38 (3): 398 – 420.

Shen, W., Chen, H. &. Hu, Y. 2014. The validity and reliability of the self-directed learning instrument (SDL) in mainland Chinese nursing students. *BMC Medical Education,* (14) 108: 2 – 7.

Shower, R. 2020. College Extracurricular Activities: Impact on Students, Types of Extracurricular Activities. Available online at https://education.stateuniversity.com/pages/1855/College-Extracurricular-Activities.html. Accessed date, 12 November 2020.

Sidhu, J. 2019. Stop making extracurricular activities, extra. Jakarta. Available online at https://www.thejakartapost.com/amp/academia/2019/04.03/stop-making-extra-curricular-activties-xtra.html. Accessed date, 04 January 2020.

Sileyew, K.J. 2019. Research Design and Methodology. Available online at https://www.intechopen.com/online-first/research-design-and-methodology. Accessed date, 24 April 2020.

Simon, M. (n.d.). The Role of the Researcher. Available online at http://dissertationrecipes.com/wp-content/uploads/2011/04/Role-of-the-Researcher.pdf. Accessed date, 03 January 2018.

Soe, H.P. 2014. Perceptions of students and teachers on their role of extracurricular activities at a private university in Myanmar. Thesis: Unitec Institute of Technology.

Soetewey, A. 2020. What is the difference between population and sample? Available online at https://www.statsandr.com/blog/what-is-the-difference-between-population-and-sample/. Accessed date, 16 August 2020.

Sommer, B. & Sommer, R. 1999. A practical Guide to Behavioural Research: Tools and Techniques. 4th ed. New York: Oxford University Press.

Sosu, E. & Pheunpha, P. 2019. Trajectory of University Dropout: Investigating the Cumulative Effect of Academic Vulnerability and Proximity to Family Support. *Educational Psychology. Frontiers in Education.*

Sotomayor, F. 1940. Extracurricular Activities in the Private Catholic Secondary Schools of New Mexico. Available online at https://digitalrepository.unm.edu/edu_teelp_etds/215. Accessed date, 27 June 2019.

Spinuzzi, C. & Guile, D. 2019. Fourth-Generation Activity Theory: An Integration Literature Review and Implications for Professional Communication. Conference Pape. ResearchGate.

Spinuzzi, C. 2020. “Trying to predict the future”: third-generation activity theory’s codesign orientation. *Mind, Culture, and Activity*, 27(1): 4-18.
Squires, S. 2011. Students miss time for sport, GPAs still up. Available online at https://teensneedsleep.files.wordpress.com/2011/06/squires-students-miss-class-time-for-sports-gpas-still-up.pdf. Accessed date, 08 February 2020.

St-Amand, J., Girard, S. & Smith, J. 2017. Sense of Belonging at School: Defining Attributes, Determinants, and Sustaining Strategies. *IAFOR Journal of Education*, 5(2):105 – 119.

Stephanie, G. 2014a. "Factor analysis: Easy Definition" From StatisticsHowTo.com: Elementary Statistics for the rest of us! Available online at https://www.statisticshowto.com/factor-analysis/. Accessed date, 12 November 2020.

Stephanie, G. 2014b. "Cronbach’s Alpha: Simple Definition, Use and Interpretation" From StatisticsHowTo.com: Elementary Statistics for the rest of us! Available online at https://www.statisticshowto.com/probability-and-statistics/statistics-definitions/cronbachs-alpha-spss/. Accessed date, 20 November 2020.

Stevens, N.G., & Peltier, G.L. 1994. A review of Research on Small-School Student Participation in Extracurricular Activities. *Journal of Research in Rural Education,* (10) 2: 116 – 120.

Stirling, A. E. & Kerr, G. A. 2015. Creating meaningful co-curricular experiences in higher education. *Journal of Education & Social Policy*, *2*(6):1-7.

Stockenstroom, S. 2018, September 13. Preserving childhood games in SA culture. *Sunday World.*

Strategies for Qualitative Interviews. (n.d.). A Few General Points. Available online at https://sociology.fas.harvard.edu/files/sociology/files/interview_strategies.pdf. Accessed date, 24 April 2018.

Strayhorn, T. 2018. College Students' Sense of Belonging: A Key to Educational Success for All Students. Taylor & Francis Group.

Strydom, J.F., Mentz, M. & Kuh, G.D. 2010. Enhancing success in higher education by measuring student engagement in South Africa. Acta Academica. Available online at https://www.researchgate.net/publication/287683879_Enhancing_success_in_South_Africa's_higher_education_Measuring_student_engagement. Accessed date, 09 July 2020.

Stuart, M., Morgan, J., Lido. & May, S. 2009. Student diversity, extracurricular activities and perceptions of graduate outcomes. *Active Learning in Higher Education,* 12(3): 203 – 215.

StudyGate. 2018. Valuable Life Skills That Extracurricular Activities Can Teach You. Available online at https://www.studygate.com/blog/valuable-life-skills-extracurricular-activities-can-teach/. Accessed date, 08 January 2020.

Suhr, D.D. (n.d). Exploratory or Confirmatory Factor Analysis? SUGI 31 Statistics and Data Analysis. Available online at https://support.sas.com/resources/papers/proceedings/proceedings/sugi31/200-31.pdf. Accessed date 21 November 2020.

Sullivan, C. 2018. A Complement to the Traditional Transcript: The Co-Curricular Record/Transcript. Available online at https://blog.kiratalent.com/a-complement-to-the-traditional-transcript-the-co-curricular-record-transcript/. Accessed date, 18 November 2020.

Surbhi, S. 2016. Difference between Population and Sample. Available online at https://keydifferences.com/difference-between-population-and-sample.html. Accessed date, 16 August 2020.

Sutton, J. & Austin, Z. 2015. Qualitative Research: Data Collection, Analysis, and Management. *Can j Hosp Pharm,* 68(3):226 – 231.

Tanner, B. 2017. Effects of Extracurricular Activities and Physical Activity on Academic Success. *Intuition: The BYU Undergraduate Journal in Psychology,* 12 (2): 158 -168.

Tashakkori, A., & Teddlie, C. 2003. Handbook of Mixed Methods in Social and Behavioural Research. Thousand Oaks: SAGE.

Taylor & Francis Group. 2018. Are your children overdoing it? Too many extracurricular activities can do more harm than good. Available online at https://www.sciencedaily.com/releases/2018/05/180514122423.htm. Accessed date, 16 January 2020.

Tekkol, J.A. & Demirel, M. 2018. An Investigation of Self-Directed Learning Skills of Undergraduate Students. Available online at https://www.frontiersin.org/articles/10.3389/fpsyg.2018.02324/full. Accessed date, 18 November 2020.

Tekkol, J.A. & Demirel, M. 2018. An Investigation of Self-Directed Learning Skills of Undergraduate Students. Available online at https://www.frontiersin.org/articles/10.3389/fpsyg.2018.02324/full. Accessed date, 18 November 2020.

Tenhouse, A.M. 2020. College Extracurricular Activities Impact on Students, Types of Extracurricular. Available online at https://education.stateuniversity.com/pages/1855/College-Extracurricular-Activities.html. Accessed date, 28 November 2020.

The Conversation. 2018a. After school clubs aren't always safe spaces: what should be done about it. Available online at https://theconversation.com/after-school-clubs-arent-always-safe-spaces-what-should-be-done-about-it-90484. Accessed date, 17 January 2020.

The Conversation. 2018b. Teachers play a key role in helping students feel the 'belong' at school. Available online at https://theconversation.com/teachers-play-a-key-role-in-helping-students-feel-they-belong-at-school-99641. Accessed date, 13 January 2020.

The Conversation. 2020. Indigenous song keepers reveal traditional ecological knowledge in music. Available online at https://theconversation.com/indigenous-song-keepers-reveal-traditional-ecological-knowledge-in-music-123573. Accessed date, 12 January 2020.

Theofanidis, D. & Fountouki, A. 2019. Limitations and Delimitations in the Research Process. *Perioperative nursing (GORNA),* 7(3): 155 – 162.

Thompson, L.J., Clark, G. & Whyatt, J.D. 2013. 'It's just like an extra string to your bow': Exploring higher education students' perceptions and experiences of extracurricular activity and employability. *Active Learning in Higher Education,* 14(2): 135-147.

Thrupp, M. & Lupton, R. 2011. The Impact of School Context: What head-teachers say. Centre for Analysis of Social Exclusion, London School of Economics: London.

Timans, R., Wouters, P. & Heilbron, J. 2019. Mixed methods research: what it is and what it could be. *Theory and Society,* (48):193-216.

Ting, T. W. 2014. “Too Much Activities: Does it Good for Students.” Dissertation. College Arts and Science, Universiti Utara Malaysia.

Tools4dev. 2014. How to pre-test and pilot a survey questionnaire: Practical tools for international development. Available online at http://www.tools4dev.org/wp-content/uploads/how-to-pretest-and-pilot-a-survey-questionnaire.pdf. Accessed date, 30 December 2017.

Trobia, A. 2011. Questionnaire. In: Encyclopedia of survey Research Methods. Sage Publications, Inc. Thousand Oaks.

Trochim, W.M.K. 2006. Sampling. Available online at https://www.socialresearchmethods.net/kb/sampling.php. Accessed date, 30 December 2017.

Trust, T. 2017. Using cultural historical activity theory to examine how teachers seek and share knowledge in a peer-to-peer professional development network. *Australasian Journal of Educational Technology*, 33(1): 98 – 113.

Tsang, s., Royce, C.F. & Terkawi, A.S. 2017. Guidelines for developing, translating, and validating a questionnaire in perioperative and pain medicine. *Saudi Journal of Anaesthesis,* 11(1): 80-89.

Tshwane University of Technology. 2020a. About Students Affairs and Extracurricular Development (SAED). Available online at https://www.tut.ac.za/saed/about. Accessed date, 01 February 2020.

Tshwane University of Technology. 2020b. Students Affairs and Extracurricular Development, Chapter 24. Students Rules and Regulations. Available online at https://www.tut.ac.za/ProspectusDocuments/2020/Chapter_24_2020.pdf. Accessed date, 21 June 2020.

Turcotte-Tremblay, A. & Sween-Cadieux, E.M. 2018. A reflection on the challenge of protecting confidentiality of participants while disseminating research results locally. *BMC Medical Ethics*, 19(1): 5- 11.

UNICEF. 2013. Ethical Research Involving Children. Available online at https://childethics.com/wp-content/uploads/2013/10/ERIC-compendium-approved-digital-web.pdf. Accessed date, 14 May 2020.

University of Melbourne. (n.d). Comparing traditional and contemporary styles of Indigenous dance. Available online at https://indigenousknowledge.research.unimelb.edu.au/resources/comparing-traditional-and-contemporary-styles-of-indigenous-dance. Accessed date, 12 January 2020.

University of Michigan. 2019. Does 'pay-to-play' puts sports, extracurricular activities out of reach for some students? Available online at https://phys.org/news/2019-03-pay-to-play-sports-extracurricular-students.html. Accessed date, 17 January 2020.

Vaismoradi, M., Jones, J., Turunen, H. & Snelgrove, S. 2016.Theme development in qualitative content analysis and thematic analysis. *Journal of Nursing Education and Practice,* 6(5): 1925 – 4059.

Vaismoradi, M., Jones, J., Turunen, H., & Snelgrove, S. 2016. Theme development in qualitative content analysis and thematic analysis. *Journal of Nursing Education and Practice.* Available online at http://dx.doi.org/10.5430/jnep.v6n5p100. Accessed date, 20 October 2020.

Van Deur, P. 2004. Gifted Primary Students' knowledge of Self Directed Learning. *International Education Journal,* 4(4): 64 – 74.

Veial, D. (n.d). Questionnaire Validation Methods. Available online at https://www.theclassroom.com/forms-validity-used-assessment-instruments-8187591.html. Accessed date, 06 May 2020.

Veresov, N. 2007. Sign mediation: Magic triangle: sign-mediated action and behind. ISCAR2007, Fourth Nordic Conference on Cultural and Activity Research, June 15-17, 2007 Oslo, Norway.

Vermaas, S. 2009. Extracurricular Activities at School: The Relationship between Specialisation in Subject areas and exit level and the extracurricular activities of high school students. Dissertation: Utrecht University.

Vygotsky, L. 1962. Thought and Language. Ed. Hanf-man, Vakar & Trans. Cambrige, MA: MIT Press.

Vygotsky, L.S. 1978. Mind in society: development of higher psychological processes. Cambridge, MA: Harvard University Press.

Wachsmuth, S. 2013. An examination of the extracurricular activity participation, social skills, and school engagement of students with emotional and behavioural disorders. Dissertation. University of Missouri.

Wagner, L. & Ruch, W. 2015. Good character at School: positive classroom behaviour mediates the link between character strengths and schools achievement. Department of Psychology, University of Zurich.

Walker, P.O. (n.d.). Singing a new song: The role of music in indigenous strategies of nonviolent social change. Available online at https://www.eolss.net/Sample-Chapters/C04/E6-120-07.pdf. Accessed date, 12 January 2020.

Watkins, A.B. 2004. The Effects of Participating in Extracurricular Activities on the Mean Grade Point Average of High School Students in a Rural Setting. Dissertation, University of Tennessee.

Wei, G. 2019. How Could Cultural-Historical Activity Theory Inspire Lesson Study? Available online at https://www.researchgate.net/publication/333446023_How_Could_Cultural-Historical_Activity_Theory_Inspire_Lesson_Study/citation/download. Accessed date, 27 May 2020.

Weimer, M. 2015. Self-Directed Learning: Antecedents and Outcomes. Available online at https://www.facultyfocus.com/articles/teaching-and-learning/self-directed-learning-antecedents-and-outcomes/. Accessed date, 17 November 2020.

Weir, S., Errity, D. & McAvinue, L. 2015. Factors Associated with Educational Disadvantage in Rural and Urban Areas. *The Irish Journal of Education*, (xl): 94-110.

Welman, J.C. & Kruger, S.J. 1999. Research Methodology for the Business and Administrative Science. New York: Oxford University Press.

Whitfield, G. 2012. The importance of Proper Definition. Available online at https://piadvice.wordpress.com/2012/06/13/the-importance-of-proper-definatiion/. Accessed date, 28 June 2018.

WHO. 2011. Standards and Operational Guidance for Ethics Review of Health-Related Research with Human Participants. WHO Press, Geneva.

Wiles, R., Crow, G., Heath, S. & Charles, V. 2008. The Management of Confidentiality and Anonymity in Social Research. *Int. J. Social Research Methodology,* 11(5): 417–428.

Wilson, N.L. 2009. Impact of Extracurricular Activities on Students. *American Psychological Association,* 5(39): 1 - 5

Wimalasiri, H.S. & Jayathilake, L.V.K. 2016. Extracurricular activities and achievements of strategic thinkers in private sector companies in Sri Lanka. *International Journal of Arts and Commerce*, 5(4): 31-42.

Wisdom, J. & Creswell, J.W. 2013. Mixed Methods: Integrating Quantitative and Qualitative Data Collection and Analysis While Studying Patient-Centered Medical Home Models. Rockville, MD: Agency for Healthcare Research and Quality. *AHRQ Publication No. 13-0028-EF.*

Wong, L.P. 2008. Data Analysis in Qualitative Research: A Brief Guide to Using Nvivo. *Malays Fam Physician*, 3(1):14-20.

Xin, M. 2003. Sense of Belonging to School: Can Schools Make a Difference? *The Journal of Educational Research,* 96(6): 340 – 349.

Yamagata-Lynch, L.C. 2010. Activity Systems Analysis Methods: Understanding Complex Learning Environments. Springer Science + Business Media, LLC.

Yaya, J.A. 2014. A comprehensive guide to research methodology (Part 1): Tips for sampling and sample techniques. Available online at https://nairaproject.com/blog/step-by-step-to-research-methodology.html. Accessed date, 3 April 2020.

Yi, E. 2018. Themes Don't Just Emerge – Coding the Qualitative Data. Available online at https://medium.com/@projectux/themes-dont-just-emerge-coding-the-qualitative-data-95aff874fdce. Accessed date, 12 May 2020.

Zainal, Z. 2007. Case study as a research method. *Journal Kemanusiaan bil*, (9): 2 – 6.

Zajic, A. 2019. Introduction to AIC — Akaike Information Criterion: Model selection without a validation or test set. Available online at https://towardsdatascience.com/introduction-to-aic-akaike-information-criterion-9c9ba1c96ced. Accessed date, 21 November 2020.

Zakhir, M. 2019. Extracurricular Activities in TEFL Classes: A Self-Centered Approach. *SISYPHUS Journal of Education,* 7 (2): 119 – 137.

Zou, D. & Zou, M. 2018. Sport or Class? How students deal with skipping school for games. Available online at https://palyvoice.com/137230/sports/sport-or-class-how-students-deal-with-skipping-school-for-games/. Accessed date, 08 February 2020.

Zulkifli, A.F. & Kulinna, P.H. 2018. Self-efficacy, soccer skills and the influence on students' learning experience. *Biomedical Human Kinetics,* 10(1):1-7.

LIST OF APPENDICES

APPENDIX A: RESEARCH QUESTIONNAIRE

SECTION A: DEMOGRAPHIC INFORMATION

DIRECTIONS: Please answer each question by cross-checking the answer that suits you best in the space provided.

1. Extracurricular Activity: Pick one Extracurricular Activity you were/ are involved in at the TUT or cross 'None' if you were never involved.	Choir	Debate	Drama	Peer Education	Soccer	Top Junior Leadership	Street Poetry	None
2. ECAs outside TUT: Have you participated in ECAs outside TUT structures?	Yes	No				
3. Year of study: What is your current academic level?	1st Year	2nd Year	3rd Year	4th Year	Other	
4. Commute/ Resident Student: Do you stay at Tshwane University of Technology residence or are you a commute student?	Resident	Commute				
Upon result of this snap survey I might request you to participate in a semi-structured interview to get more insight about the effects of extracurricular activities on your self-directed learning and your academic performance.						
5. Would you like to be interviewed?	Yes	No				
6. How would you prefer to be contacted for in	a) Phone (kindly furnish your active		b) E-mail (kindly furnish your			

case you are selected for an interview?	cell phone or landline)	active email address)

SECTION B: STUDENTS' PERCEPTION ON EXTRACURRICULAR ACTIVITIES AND ACADEMIC PERFORMANCE (Skip this if you did not participate in ECAs)

DIRECTIONS: **Rate each item to show the extent to which you agree with it by circling one answer that suits your perception on the effects of extracurricular activity on your academic performance.**

Statement	1 = Strongly disagree	2 = Disagree	3 = Neither agree nor Disagree	4 = Agree	5 = Strongly agree
1. Extracurricular activities create valuable study time.	1	2	3	4	5
2. I am able to plan my time for extracurricular activities and that of my academic activities.	1	2	3	4	5
3. My involvement in extracurricular activities motivate me to do my academic work.	1	2	3	4	5
4. I balance my schoolwork and my involvement in extracurricular Activities.	1	2	3	4	5
5. I attend classes even when there are extracurricular activity drives.	1	2	3	4	5
6. My involvement in extracurricular activities results in me feeling at home at TUT.	1	2	3	4	5
7. My involvement in extracurricular activities results in me getting higher marks.	1	2	3	4	5
8. Based on my experience I can recommend involvement in extracurricular activities to fellow	1	2	3	4	5

students.					
9. My participation in extracurricular activities results in me attending class regularly	1	2	3	4	5
10. My involvement in extracurricular activities helps me improve my self-esteem.	1	2	3	4	5
11. My participation in extracurricular activities results in me refraining from risk behaviour that can distract me from focussing on my academic work.	1	2	3	4	5
12. My participation in extracurricular activities results in me an enhanced learning strategies.	1	2	3	4	5

SECTION C: **SELF DIRECTED LEARNING QUESTIONS**

DIRECTIONS: Rate each statement to show the extent to which you agree with it by circling the number that best describes your thoughts and feelings about your own learning. There is no right or wrong answer.

	1 = Strongly disagree	**2 = Disagree**	**3 = Neutral**	**4 = Agree**	**5 = Strongly agree**
1. I know what I need to learn.	1	2	3	4	5
2. Regardless of the results or effectiveness of my learning, I still like learning.	1	2	3	4	5
3. I strongly hope to constantly improve and excel in my learning.	1	2	3	4	5
4. My successes and failures inspire me to continue learning.	1	2	3	4	5
5. I enjoy finding answers to questions.	1	2	3	4	5
6. I will not give up learning because I face some difficulties.	1	2	3	4	5
7. I can pro-actively establish my learning goals.	1	2	3	4	5
8. I know what learning strategies are	1	2	3	4	5

appropriate for me in searching my learning goals.					
9. I set the priorities of my learning.	1	2	3	4	5
10. Whether in the clinical practicum, classroom or on my own, I am able to follow my own plan of learn.	1	2	3	4	5
11. I am good at arranging and controlling my learning time.	1	2	3	4	5
12. I know how to find resources for my learning.	1	2	3	4	5
13. I can connect new knowledge with my own personal experiences.	1	2	3	4	5
14. I understand the strengths and weakness of my learning.	1	2	3	4	5
15. I can monitor my learning progress.	1	2	3	4	5
16. I can evaluate on my own my learning outcomes.	1	2	3	4	5
17. My interaction with others helps me plan for further learning.	1	2	3	4	5
18. I would like to learn the language and culture of those whom I frequently interact with.	1	2	3	4	5
19. I am able to express messages effectively in oral presentation.	1	2	3	4	5
20. I am able to communicate messages effectively in writing.	1	2	3	4	5

Source, Cheng et al. (2010)

APPENDIX B: INTERVIEWS GUIDE

SEMI-STRUCTURED INTERVIEW GUIDE

LENGTH: 30 – 45 minutes

A. INTRODUCTION

i) Welcoming

ii) Purpose of the semi-structured interview

iii) Setting a tone

QUESTIONS FOR STUDENTS PARTICIPATING IN ECAs

A. RESPONDENTS' PERCEPTIONS ABOUT FACTORS LEADING TO JOINING ECAs:

i) What do you think might be the factors that contribute to students joining ECAs?

ii) Please, could you describe reasons that led you to participate in ECAs?

B. QUESTIONS ON RELATIONSHIP BETWEEN ECAs AND PERCEIVED ACADEMIC ACHIEVEMENT:

i) Could you tell me the positive impacts your ECAs involvement has had on your academic achievement?

ii) How would you describe ECAs in relation to academic achievement?

iii) What academic benefits do you think other students who want to join ECAs might get from such engagement?

iv) Could involvement in ECAs have a negative impact on academic achievement? Motivate your answer.

C. RESPONDENTS' OPINIONS ON EFFECTS OF ECAs ON LEARNING/ SELF-DIRECTED LEARNING:

i) What is your opinion of the influence of ECAs on student's learning in TuT?

ii) In your own opinion, how does participating in ECAs affect student's class attendance?

iii) Did participation in ECAs influence your own self-directed learning? Motivate.

D. RESPONDENTS' SATISFACTION ON THE IMPLEMENTATION OF ECAs:

i) What are your feelings about your ECAs?

ii) In your opinion, what are the major stumbling blocks in the running of your ECAs?

iii) If you were to be appointed to coordinate your ECA, how would you improve the running of the ECA?

E. RESPONDENTS' THOUGHTS AND FEELINGS ABOUT LEARNING MOTIVATION:

i) Tell me, how do you maintain your own learning motivation?

ii) In your own opinion, how does motivation impact on your academic achievement?

iii) How do you get to be a self-directed student?

F. RESPONDENTS' THOUGHTS AND FEELINGS ABOUT PLANNING AND IMPLEMENTATION:

i) Tell me, what do you think are the most appropriate learning strategies that works for you?

ii) In your own opinion, how can one manage to follow his own plan of learning in the midst of other activities which also warrant one's attention?

iii) What do you think will be the recommendable way of finding relevant learning resources?

iv) How do you think time management contributes towards students' own learning?

G. RESPONDENTS' THOUGHTS AND FEELINGS ABOUT SELF-MONITORING:

i) What do you think are the most outstanding ways to assess your own learning?

ii) In your own view, what could help you get better at being a self-directed student?

iii) What are your feelings about monitoring your own learning?

iv) How would you describe your own ways of learning?

H. RESPONDENTS' THOUGHTS AND FEELINGS ABOUT INTERPERSONAL COMMUNICATION:

i) Could you tell me what positive and/or negative impact your own learning has on other students at TUT?

Closure- Thanking the person being interviewed.

QUESTIONS FOR STUDENTS NOT PARTICIPATING IN ECAs

I. RESPONDENT'S DECISION TO NOT PARTICIPATE IN ECAs:

i) Why did you decide to not participate in any ECAs?

ii) In your opinion, does participation in ECAs influence one's own learning and academic achievement?

J. RESPONDENTS' THOUGHTS AND FEELINGS ABOUT LEARNING MOTIVATION:

iv) Tell me, how do you maintain your own learning motivation?

v) In your own opinion, how does motivation impact on your academic achievement?

vi) How do you get to be a self-directed student?

K. RESPONDENTS' THOUGHTS AND FEELINGS ABOUT PLANNING AND IMPLEMENTATION:

v) Tell me, what do you think are the most appropriate learning strategies that works for you?

vi) In your own opinion, how can one manage to follow his own plan of learning in the midst of other activities which also warrant one's attention?

vii) What do you think will be the recommendable way of finding relevant learning resources?

viii) How do you think time management contributes towards students' own learning?

L. RESPONDENTS' THOUGHTS AND FEELINGS ABOUT SELF-MONITORING:

v) What do you think are the most outstanding ways to assess your own learning?

vi) In your own view, what could help you get better at being a self-directed student?

vii) What are your feelings about monitoring your own learning?

viii) How would you describe your own ways of learning?

M. RESPONDENTS' THOUGHTS AND FEELINGS ABOUT INTERPERSONAL COMMUNICATION:

ii) Could you tell me what positive and/or negative impact your own learning has on other students at TUT?

iii) In your own view, what would be the best way to involve other students to be self-directed learners?

N. CLOSURE

i) Thanking the interviewee

APPENDIX C: CONSENT FORM

Private Bag X1290, Potchefstroom
South Africa 2520
Tel: +2718 299-1111/2222
Fax: +2718 299-4910
Web: http://www.nwu.ac.za

Faculty of Education

INFORMED CONSENT DOCUMENTATION: QUESTIONNAIRE

You are being invited to take part in a **research study** that forms part of a Masters study. Please take some time to read the information presented here, which will explain the details of this study. Please ask the person explaining the research to you any questions about any part of this study that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research is about and how you might be involved. Also, your participation is **entirely voluntary** and you are free to say no to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part now.

RESEACHER : DR N.A. MBADA

STUDY LEADER: PROF JOSEF DE BEER

Tel (018) 285-2626/ Cell 082 923-2865

TITLE OF THE RESEARCH PROJECT : Students' perceptions of the influence of extracurricular activities on academic performance: A case study of the Tshwane University of Technology, South Africa

PURPOSE OF THE RESEARCH: To explore, investigate and better understand students' perceptions of the effects of Extracurricular Activities on their academic performance at the university level.

DURATION: Duration for completing the questionnaire will be 10 – 15 minutes.

PROCEDURE: You are required to indicate your perceptions related to given statements on a 5 point Likert Scale. There will be some demographic questions, extracurricular activities questions, as well as the Self-Directed Learning Instrument, that you should answer. These are opinions, and there are no right or wrong answers.

POSSIBLE RISKS: There are minimal risks in completing the survey tool to you, Tshwane University of Technology and your fellow students. Nevertheless, you may decline answering questions which you perceive threatening or questions that you are not comfortable answering.

BENEFITS: There are no direct benefits or remuneration for completing the questionnaire.

VOLUNTARY PARTICIPATION: Your participation in this research study is voluntary. You may withdraw from this participation at any time, without any negative consequences. **CONFIDENTIALITY:** Information provided by you will be used for the purpose of this study only. Only pseudonyms will be used in the research final report.

CONTACT: The research is conducted by Master Degree student, Dr Ndavheleseni Albert Mbada, under the supervision of Prof. Josef de Beer from the Faculty of Education, NorthWest University, Potchefstroom campus. Prof Josef de Beer can be reached during office hours for any clarity searching questions regarding this study (contact details provided above).

The North-West University EDU-REC Ethics Committee has granted ethical clearance for the study to be conducted. ETHICS NUMBER: NWU- 01202-20-A2.
The Tshwane University of Technology Ethics Committee has granted permission for the study to be conducted.

CONSENT:

I ……have read and understand the nature of my involvement in this study, and agree to participate voluntarily.

Your name: _____

Signature: _____

Date: _____

Researcher 'signature: _____

INFORMED CONSENT DOCUMENTATION: INTERVIEWS

You are being invited to take part in a **research study** that forms part of a Masters study. Please take some time to read the information presented here, which will explain the details of this study. Please ask the person explaining the research to you any questions about any part of this study that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research is about and how you might be involved. Also, your participation is **entirely voluntary** and you are free to say no to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part now.

RESEACHER : DR N.A MBADA

STUDY LEADER: PROF JOSEF DE BEER

Tel (018) 285-2626/ Cell 082 923-2865

TITLE OF THE RESEARCH PROJECT : Students' Perceptions of the Effects of Extracurricular Activities on academic performance: A case example of the Tshwane University of Technology, South Africa.

PURPOSE OF THE RESEARCH: To explore, investigate and better understand students' perceptions of the effects of Extracurricular Activities on their academic performance.

DURATION: Duration of the interview will be 30 – 45 minutes.

PROCEDURE: An open-ended telephone interview will be conducted after school hours or at any convenient time for you. Interviews will be recorded and transcribed thereafter for analysis. **POSSIBLE RISKS**: Minimal risks in completing the survey tool to you, Tshwane University of Technology and your fellow students. Nevertheless, you may decline answering questions which you perceive threatening or questions that you are not comfortable answering. **BENEFITS:** No direct benefits or remuneration are given for completing the questionnaire. **VOLUNTARY PARTICIPATION:** Your participation in this research study is voluntary. You may withdraw from this participation at any time, without any negative consequences. **CONFIDENTIALITY:** Information provided by you will be used for the purpose of this study only and data given will remain confidential. Only pseudonyms will be used in the research final report.

CONTACT: The research is conducted by Master Degree student, Dr Ndavheleseni Albert Mbada, under the supervision of Prof. Josef de Beer from the Faculty of Education, NorthWest University– Potchefstroom campus. Prof Josef de Beer can be reached during office hours for any clarity searching questions regarding this study- contact details are provided below.

The North-West University has granted ethical clearance for the study to be conducted. The Tshwane University of Technology Ethics Committee has granted permission for the study to be conducted.

CONSENT:

I ……have read and understand the nature of my involvement in this study, and agree to participate voluntarily.

Your Name: _____

Signature: _____

Date: _____

Researcher signature: _____

APPENDIX D: TUT REC ETHICS CERTIFICATE

Research Ethics Committee

The TUT Research Ethics Committee is a registered Institutional Review Board (IRB 00005968) with the US Office for Human Research Protections (IORG# 0004997) (Expires 14 Jan 2023). Also, it has Federal Wide Assurance for the Protection of Human Subjects for International Institutions (FWA 00011501). In South Africa it is registered with the National Health Research Ethics Council (REC160509-21).

October 5, 2020

REC Ref #: REC2020/07/004
Name: Mbada NA
Student #: 22769773

Dr NA Mbada
C/o Prof J de Beer
Self-Directed Learning Research Unit
North West University

Dear Dr Mbada,

J **Decision: Gatekeeper Permission - Final Approval**

Name: Mbada NA
Project title: *Students' perceptions of the influence of extracurricular activities on academic performance: A case study of the Tshwane University of Technology, South Africa.*
Qualification: 4CC N01 1 Master of Education in Curriculum Studies
Promoter: Prof J de Beer
Co-Promoter: Prof N Petersen

Thank you for submitting the revised project documents for review by the Research Ethics Committee (REC), Tshwane University of Technology (TUT). In reviewing the documents, the comments and notes below are tabled for your consideration, attention and/or notification:

Permission Letters

- **Director, Extra-curricular Activities**. Note that written permission letter from Ms MTP Makgabo, Director in the Directorate of Health and Wellness: Students Affairs and Extra-curricular Activities (letter dated 25 August 2020) to access student is in order and duly noted.

Appendix A: Quantitative Data Collection Tool/ Questionnaire

- **Demographic Information, Name, Gender & Age**. The REC took note that the demographic information (Name, Gender and Age) will be omitted in the questionnaire.

- **Memo of Revisions**

- Memo of revision is in order and duly noted.

National Lockdown and COVID-19 guidelines

- Please take note of and adhere to the guidelines stipulated in the document included with the feedback letter entitled, "Implications of alert levels for researchers and postgraduate students during the COVID19 pandemic."

The Chairperson of the Research Ethics Committee, Tshwane University of Technology, reviewed the revised project documents on August 26, 2020. **Final Approval** is granted to the study.

The proposed research project may now continue with the proviso that:

1) The researcher/s will conduct the study according to the procedures and methods indicated in the **approved proposal**, particularly in terms of any undertakings and/or assurances made regarding the confidentiality of the collected data.
2) The proposal will be submitted to the Committee for prospective ethical clearance if there are any substantial **deviations** and/or changes from the approved proposal.
3) The researcher/s will act within the parameters of any applicable **national legislation, professional codes of conduct**, institutional guidelines and scientific standards relevant to the specific field of study. Strict adherence to the following South African legislation, where applicable, is especially important: Protection of Personal Information Act (Act 4 of 2013), Children's Act (Act 38 of 2005) and the National Health Act (Act 61 of 2003).
4) The researcher will inform the REC as soon as possible of any **adverse events** involving research participants that may have occurred during the course of the study. It includes the actions and/or processes that were implemented to mitigate and/or prevent any further injuries and/or adverse outcomes.

5) The researcher will inform the REC of any **new or unexpected ethical issues** that may have emerged during the course of the study, as well as how these ethical issues were addressed. The researcher must consult with the REC for advice and/or guidance in any such event.
6) The current ethics approval expiry date for this project is **August 25, 2022**. No research activities may continue after the ethics approval expiry date. An application for the extension of ethics approval must be submitted for projects that need to continue beyond the expiry date.

Note:
The reference number [top right corner of this communiqué] should be clearly indicated on all forms of communication [e.g. Webmail, E-mail messages, letters] with the intended research participants.

Yours sincerely,

H Mason (Dr)
Chairperson: Research Ethics Committee
[TUTRef#2020=07=004=MbadaNA]

APPENDIX E: NWU REC ETHICS CERTIFICATE

NORTH-WEST UNIVERSITY
NOORDWES-UNIVERSITEIT
YUNIBESITI YA BOKONE-BOPHIRIMA

Private Bag X1290, Potchefstroom
South Africa 2520

Tel: 018 299-1111/2222
Fax: 018 299-4910
Web: http://www.nwu.ac.za

Senate Committee for Research Ethics
Tel: 018 299-4849

Email: nkosinathi.machine@nwu.ac.za

ETHICS APPROVAL LETTER OF STUDY

Based on approval by the **Faculty of Education Research Ethics Committee (EduREC)** on 19/07/2020, this committee hereby **approves** your study as indicated below. This implies that the North-West University Senate Committee for Research Ethics (NWU-SCRE) grants its permission that, provided the special conditions specified below are met and pending any other authorisation that may be necessary, the study may be initiated, using the ethics number below.

Study title: Students' perceptions of the influence of extracurricular activities on academic performance: A case study of the Tshwane University of Technology, South Africa

Study Leader/Supervisor (Principal Investigator)/Researcher: Prof JJJ de Beer

Student /

Team: Dr

N	W	U	-	0	1	2	0	2	-	2	0	-	A	2

NA Mbada (MEd student – 22769773) Ethics number:

Institution Study Number Year Status

Status: S = Submission; R = Re-Submission; P = Provisional Authorisation; A = Authorisation

Application Type: Single Study

Low

Commencement date: **30/07/2020** **Risk:**

Expiry date: 30/07/2021

Approval of the study is initially provided for a year, after which continuation of the study is dependent on receipt and review of the annual (or as otherwise stipulated) monitoring report and the concomitant issuing of a letter of continuation.

Special in process conditions of the research for approval (if applicable):

General conditions:

While this ethics approval is subject to all declarations, undertakings and agreements incorporated and signed in the application form, the following general terms and conditions will apply:

- *The study leader/supervisor/principal investigator/researcher must report in the prescribed format to the EduREC:*
  - *annually (or as otherwise requested) on the monitoring of the study, whereby a letter of continuation will be provided, and upon completion of the study; and*
  - *without any delay in case of any adverse event or incident (or any matter that interrupts sound ethical principles) during the course of the study.*
- *The approval applies strictly to the proposal as stipulated in the application form. Should any amendments to the proposal be deemed necessary during the course of the study, the study leader/researcher must apply for approval of these amendments at the EduREC, prior to implementation. Should there be any deviations from the study proposal without the necessary approval of such amendments, the ethics approval is immediately and automatically forfeited.*
- *Annually a number of studies may be randomly selected for an external audit.*
- *The date of approval indicates the first date that the study may be started.*
- *In the interest of ethical responsibility, the NWU-SCRC and EduREC reserves the right to:*
  - *request access to any information or data at any time during the course or after completion of the study;*

– to ask further questions, seek additional information, require further modification or monitor the conduct of your research or the informed consent process; – withdraw or postpone approval if:

· any unethical principles or practices of the study are revealed or suspected;

· it becomes apparent that any relevant information was withheld from the EduREC or that information has been false or misrepresented;

· submission of the annual (or otherwise stipulated) monitoring report, the required amendments, or reporting of adverse events or incidents was not done in a timely manner and accurately; and / or · new institutional rules, national legislation or international conventions deem it necessary.

The EduREC would like to remain at your service as scientist and researcher, and wishes you well with your study. Please do not hesitate to contact the EduREC or the NWU-SCRE for any further enquiries or requests for assistance.

Yours sincerely

Prof JAK Olivier
Chairperson NWU Faculty of Education Research Ethics Committee

Original details: (22351930) C:\Users\22351930\Desktop\ETHICS APPROVAL LETTER OF STUDY.docm
8 November 2018

Current details: (22351930) M:\DSS1\8533\Monitoring and Reporting Cluster\Ethics\Certificates\Templates\Research Ethics Approval Letters\9.1.5.4.1 ES-REC Ethical Approval Letter.docm
5 December 2018

File reference: 9.1.5.4.2

APPENDIX F: RESEARCH ETHICS TRAINING CONFIRMATION

Private Bag X6001, Potchefstroom
South Africa 2520

Tel: 018 299-1111/2222
Web: http://www.nwu.ac.za

Research Ethics Committee of the Faculty of Education (EduREC)

Faculty of Education

Tel: 018 285 2078
Email: Jako.Olivier@nwu.ac.za

13 June 2019

PROOF OF ATTENDANCE AND ASSESSMENT

Dear **Ndavheleseni Albert Mbada**

This letter certifies that the abovementioned individual attended a 1-day workshop on 3 June 2019 at the Vaal Triangle Campus of the North-West University, Vanderbijlpark as well as online training and assessment on:
Research Ethics for Education

The workshop was presented by: *Prof Lukas Meyer*, Chairperson of the North-West University Education, Management and Economic Sciences, Law, Theology, Engineering and Natural Sciences Research Ethics Committee (NWU-EMELTEN-REC) and *Prof Jako Olivier*, Chairperson of the Research Ethics Committee of the Faculty of Education (EduREC).

This letter of attendance, as proof of ethics training and assessment, is valid for 3 years and expires on 3 June 2022.

Yours sincerely

Prof JAK Olivier

Chairperson: Research Ethics Committee of the Faculty of Education (EduREC)

APPENDIX G: PERMISSION LETTER FROM HEALTH AND WELLNESS DIRECTORATE

Tshwane University of Technology
We empower people

DIRECTORATE OF HEALTH AND WELLNESS: STUDENTS AFFAIRS AND EXTRACURRICULAR ACTIVITIES

AUGUST 2020

Dr. N.A Mbada

155 Marsburg Avenue

Danville,

0183

Dear Sir

PERMISSION TO CONDUCT REASEARCH: Students' perceptions of the influence of extracurricular activities on academic performance: A case study of the Tshwane University of Technology, South Africa.

Permission is hereby granted to Dr N.A Mbada to collect data from the students at Tshwane University of Technology who participated in Peer Education programme during 2018, 2019 and 2020 academic years. Please maintain confidentiality all the times and that student's information should be used for the purpose of this research only. The directorate will be pleased to be provided with your research findings from the study.

The directorate wishes you well.

Kind regards,

TPM Makgabo.

Ms. M.T.P Makgabo

Director: Directorate of Health and Wellness

Tel: 012 382 6611/3

TebogoMakgabo@tut.ac.za

APPENDIX H: PERMISION LETTER FROM SGLD DIRECTORATE

Tshwane University of Technology
We empower people

STUDENT GOVERNANCE & LEADERSHIP DEVELOPMENT

25 August 2020

Dr. N.A Mbada
155 Marsburg Avenue
Danville,
0183

Dear Sir or Madam

Re: Approval in Respect of Request to Conduct Research

This letter serves to indicate that permission is granted for you to access the registered Tshwane University of Technology students who participated in the top-junior leadership programme in 2018, 2019 and 2020 academic years. The full research topic: *Students' perceptions of the influence of extracurricular activities on academic performance: A case study of the Tshwane University of Technology, South Africa.* The following conditions apply:

1. The safety of students should be safeguarded all the times.
2. The researcher should maintain confidentiality and that student's information should be used for the purpose of this research only.

You are also requested to share your research report including findings and recommendations with the directorate after completing the study.

The directorate wishes you well in this important journey.

Kind regards,

Mr. G Xaba
Director: Students Governance and Leadership Development

APPENDIX I: PERMISSIO LETTER FROM SPORTS AND RECREATION DIRECTORATE

Tshwane University of Technology
We empower people

Student Affairs and Extracurricular Development
Directorate: Sport and Recreation

25 August 2020

Dear Dr Mbada

RE: Permission to conduct research at TUT Sport

Your request to conduct research under the topic: **Students' perceptions of the influence of extracurricular activities on academic performance: A case study of the Tshwane University of Technology, South Africa,** has been accordingly approved by my Directorate.

I am looking forward to your massive contribution to the body of knowledge with your project.

Best sporting regards

Shadrack Nthangeni
Director Sport and Recreation
Tel: 012 382 5399
Fax: 012 382 5993
E-mail: nthangenis@tut.ac.za

APPENDIX J: PERMISSION LETTER FROM EXTRACURRICULAR AND DEVELOPMENT DIRECTORATE

Tshwane University of Technology
We empower people

Memo

Directorate Extracurricular Development

To: Dr. A.N.Mbada

From: Mr. S.S. Maloka – Acting Director: DED

Date: 25 August 2020

Re: Permission for research

Dear Dr. Mbada,

Permission is hereby granted for you to conduct your study: Student perceptions on the influence of Extracurricular activities on academic performance: A case study of the Tshwane University of Technology.

In line with the TUT Research Ethics Committee prescripts, you can access students in Extracurricular Clubs/Societies for purpose of the study.

Good luck.

nd regards,

Mr. S. Solomon Maloka
Acting Director: Extracurricular Development

APPENDIX K: STATISTICIAN REPORT

1.1 Sec 8c: Statistical Consultant (If applicable)

The statistician of the Statistical Consultation Service of the North-West University completes this section (where applicable).

1.1.1 Have you ascertained that the statistical analyses to be used in this study is justifiable according to your judgement?

Please mark with X in the appropriate box and provide details.

Yes	No
☒	☐

Remarks

Name (Title, Full Names & Surname)	Qualifications
Johanna Wilhelmina Breytenbach	MSc (Statistics)

2	0	2	0	-	0	7	-	2	2
c	c	y			y		m	m	d	d

Date

APPENDIX L : LANGUAGE EDITTING CERTIFCATE

EDITING CERTIFICATE

This is to certify that the thesis entitled ***Students' perceptions of the influence of extracurricular activities on academic performance: A case study of the Tshwane University of Technology, South Africa*** by **NA Mbada** has been comprehensively and professionally edited

Evelyn Levitz
06 Prestwick
3 Atherstone Road
Illovo
Johannesburg
2193
Cell 082 5303006
Phone: 0118808025
Email: elevitz@mweb.co.za

Editing and Writing Skills·

- Lectured English and communication at Tshwane University of Technology
- Proofread and edited government papers
- Wrote manuals, study guides and annual reports
- Wrote manuals on Englsih for Vista University
- Edit Master and Doctorate Degrees from TUT
- Completed Cambridge University Course on teaching English as aforeign language.

Lecturing Skills

- Lectured English and communication at Tshwane University of Technology
- Lectured on communication to journalists, public relations officers, pharmacists, architects, marketing specialists and musicians
- Presented short courses to journalists in the field
- Gave courses to civil servants in various departments
- Taught at Ikageng Adult classes in the evenings
- Lectured English at Vista Further Training University, writing distance education material for teacher upgrading
- Marked for both UNISA and VISTA
- Lectured in communication at Technikon Pretoria in the evenings
- Lectured in English and Methodology at both Pretoria College of Education and Normal College Pretoria

Elevitz 22 Dec 2020