TRAINING NEEDS ANALYSIS AND TALENT MANAGEMENT OF ADMINISTRATIVE STAFF AT A HEALTH SCIENCES UNIVERSITY

by

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at the

UNIVERSITY OF SOUTH AFRICA

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DECLARATION

I, **HERIET NANCY MATLAKALA**, student number 34620605, declare that the dissertation entitled, **"TRAINING NEEDS ANALYSIS AND TALENT MANAGEMENT OF ADMINISTRATIVE STAFF AT A HEALTH SCIENCES UNIVERSITY"**, is my own work. All the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

Furthermore, I declare that the dissertation was submitted to the originality checking software, Turnitin, and that it falls within the accepted requirements for originality. Finally, I certify that I have not previously submitted this work, or part of it, for examination at Unisa, or at any other institution, for another qualification.

27 February 2021

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Heriet Nancy Matlakala **Date**

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ABSTRACT

TRAINING NEEDS ANALYSIS AND TALENT MANAGEMENT OF ADMINISTRATIVE STAFF AT A HEALTH SCIENCES UNIVERSITY

by

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The aim of this research was to establish the link between the training needs analysis (TNA) process and talent management (TM) practices of administrative staff at a health sciences university (HSU). The nature of the office work space and the training need analysis model (TNAM) indicate that the design of administrative staff members' vocations does not include some of the core dimensions of TNA and TM. This may lead to several peculiarities in terms of how administrative staff work, narrate and engage with their line managers. If not attended to, these peculiarities may impact the levels of administrative staff members' training needs and TM adversely. Additionally, the possibility that they may leave the organisation may increase. As a result, a quantitative online survey was conducted on a census sample of 163 (n = 163) permanent administrative staff members (secretaries and administrative officers) atthe specific unversity.

In the absence of a good fit, an exploratory factor analysis (EFA) revealed a four-factor model for the TNA process and a three-factor model for TM practice. A correlational analysis revealed a statistically significant relationship between perceptions of the TNA process and TM practice. A bivariate-partial correlation revealed a significant positive relationship or link between the TNA process and TM practice. A Mann-Whitney test was also used to determine the significant mean differences among groups based on the TNA process and TM practice. Tests for statistically significant mean differences demonstrated no significant difference between female and male administrative staff members. The same was true for differences in terms of age, job title, job level and job tenure. In terms of educational level, no significant mean differences were found among administrative staff members in

possession of undergraduate degrees and those with postgraduate degrees. The findings are applicable to similar populations and may assist in improving the work experience of other office employees. In addition, it is the conviction of the researcher that the results of this study will help university management and the human resource development (HRD) section to follow the required TNA process. It will also improve the TM practice of administrative staff members by ensuring that their training needs are linked with their tasks and that individual TNAs are undertaken to ensure that organisational goals are achieved.

Key terms: Administrative Staff; Health Sciences University; Talent; Talent anagement; Training Needs Analysis; Training Needs Assessment.

TSHOBOKANYO

TOKOLOLO YA DITLHOKEGO TSA KATISO LE TSAMAISO YA DITALENTE TSA BADIRI BA TSAMAISO KWA YUNIBESITHING YA DISAENSE TSA BOITEKANELO

ka

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MOTLHOKOMEDI: Mop Adele Bezuidenhout
MOTLHOKOMEDIMMOGO: Mme Liezel Diedericks
LEFAPHA: Tsamaiso ya Badiri
DIKIRII: *Master of Commerce*

Maikaelelo a patlisiso eno e ne e le go bona kgolagano magareng ga tirego ya tokololo ya ditlhokego tsa katiso (TNA) le ditiragatso tsa tsamaiso ya ditalente (TM) tsa badiri ba tsamaiso kwa yunibesithing ya disaense tsa boitekanelo (HSU). Mofuta wa sebaka sa tiro mo kantorong le sekao sa tshekatsheko ya ditlhokego tsa katiso (TNAM) di supa gore thadiso ya ditiro tsa badiri ba tsamaiso ga e a akaretsa dingwe tsa dintlha tsa botlhokwa tsa TNA le TM. Seno se ka lebisa kwa goreng go nne le dilo dingwe tse di sa tlwaelegang malebana le gore badiri ba tsamaiso ba dira jang, ba tlotla le go dirisana jang le batsamaisi ba bona ba tlhamalalo. Fa go sa samaganwe natso, dilo tseo tse di sa tlwaelegang di ka ama seelo sa ditlhokego tsa katiso le tsamaiso ya ditalente tsa badiri ba tsamaiso mo go maswe. Go tlaleletsa foo, kgonagalo ya gore ba ka tlogela setheo e ka oketsega. Ka ntlha ya seo, go dirilwe thekatsheko e e lebelelang dipalopalo mo inthaneteng ka sampole ya palobatho ya 163 (n = 163) ya badiri ba leruri ba tsamaiso (bakwaledi le batlhankedi ba tsamaiso) kwa yunibesithing e e tlhalositsweng.

Moo go neng go se na tekano e e siameng, tokololo ya tlhotlhomiso ya ntlha (EFA) e senotse sekao sa dintlha tse nne malebana le tirego ya TNA le sekao sa dintlha tse tharo malebana le tiragatso ya TM**.** Tokololo ya tsamaelano e senotse kamano e e maleba mo dipalopalong magareng ga megopolo ka ga tirego ya TNA le tiragatso ya TM. Tsamaelano ya bogare ya dipalopedi e bontshitse kamano gongwe kgolagano e e siameng magareng ga tirego ya TNA le tiragatso ya TM. Go dirisitswe gape teko ya Mann-Whitney go swetsa ka dipharologano tsa botlhokwa tsa bogare magareng ga ditlhopha go ya ka tirego ya TNA le tiragatso ya TM. Diteko tsa dipharologano tsa dipalopalo tsa botlhokwa

tsa bogare ga di a bontsha pharologano epe e e botlhokwa magareng ga badiri ba tsamaiso ba basadi le ba banna. Seno se ne se tshwana le mo dipharologanong go ya ka dingwaga, maemotiro, legato la tiro le sebaka sa go dira. Malebana le seelo sa thuto, ga go a fitlhelwa dipharologano dipe tse di botlhokwa tsa bogare magareng ga badiri ba tsamaiso ba ba nang le didikirii tse di kwa tlase ga kalogo le ba ba nang le didikirii tsa morago ga kalogo. Diphitlhelelo di ka dirisiwa mo ditlhophadikgolong tse di tshwanang le tseo me di ka thusa go tokafatsa maitemogelo a tiro a badiri ba bangwe ba dikantoro. Go tlaleletsa foo, mmatlisisi o dumela gore dipoelo tsa thutopatlisiso eno di tlaa thusa botsamaisi jwa yunibesithi le karolo ya tlhabololo ya badiri (HRD) go latela ditirego tse di tlhokegang tsa TNA. Gape di tlaa tokafatsa tirego ya TM ya badiri ba tsamaiso ka go netefatsa gore ditlhokego tsa bona tsa katiso di golaganngwa le ditiro tsa bona, le gore go dirwa diTNA tsa mongwe le mongwe go netefatsa gore go fitlhelelwa maikemisetso a setheo.

Mareo a botlhokwa

Badiri ba Tsamaiso, Yunibesithi ya Disaense tsa Boitekanelo, Talente, Tsamaiso ya Talente, Tokololo ya Ditlhokego tsa Katiso le Tshekatsheko ya Ditlhokego tsa Katiso.

SETSOPOLWA

TSHEKATSHEKO YA DINYAKWA TŠA TLHAHLO LE TAOLO YA TALENTE YA BAŠOMI BA TSHEPEDIŠO KA YUNIBESITHING YA DITHUTAMAHLALE TŠA MAPHELO

ka

Heriet Nancy Matlakala

MOHLAHLI WA THUTO : Moprof Adele Bezuidenhout
MOTHUŠAMOHLAHLI WA THUTO: Ms Liezel Diedericks
LEFAPHA : Bolaodi bja Merero ya Bašomi
KGRATA : Mastase wa Dithutakgwebo

Maikemišetšo a dinyakišišo tše e bile go utolla kamano magareng ga tshepedišo ya tshekatsheko ya dinyakwa tša tlhahlo (TNA) le ditiro tša taolo ya talente (TM) ya bašomi ba tshepedišo ka yunibesithing ya dithutamahlale tša maphelo (HSU). Sebopego sa lefelo la mošomo la ka kantorong le mokgwa wa tshekatsheko ya dinyakwa tša tlhahlo (TNAM) di laetša gore tlhamo ya dithuto tša maloko a bašomi ba tshepedišo ga e akaretše tše dingwe tša metheo ye bohlokwa ya TNA le TM. Se se ka feletša ka dilo tše mmalwa tšeo di sego tša tlwaelega mabapi le ka fao bašomi ba tshepedišo ba šomago ka gona, ba bolelago le go boledišana le bolaodi ba bona ka mošomong. Ge se se ka se rarollwe, dilo tše di sego tša tlwaelega di ka ama maemo a dinyakego tša tlhahlo tša bašomi ba tshepedišo le TM gampe. Godimo ga fao, kgonagalo ya gore ba ka tšwa ka fao yunibesithing e ka oketšega. Ka lebaka la se, dinyakišišo tša bontši tša inthaneteng di dirilwe mabapi le sampole ya dipalopalo tša bašomi ba tshepedišo ba sa ruri ba 163 (n = 163) (e lego bangwaledi le bahlankedi ba tshepedišo) ka yunibesithing ye itšego.

Ge go hlokega go ba le maswanedi go mošomo, tshekatsheko ya go utolla mabaka (EFA) e utollotše mokgwa wa mabaka a mane wa tshepedišo ya TNA le mokgwa wa mabaka a mararo wa tiro ya TM**.** Tshekatsheko ya kamano e utollotše kamano ye bohlokwa go dipalopalo magareng ga maikutlo a tshepedišo ya TNA le tiro ya TM. Kamano ye e sego ya felela ya phapano gabedi e utollotše kamano ye bohlokwa ye kaone goba kamano magareng ga tshepedišo ya TNA le tiro ya TM. Teko ya Mann-Whitney le yona e šomišitšwe go tseba phapano ye nnyane magareng ga dihlopha tšeo di theilwego go tshepedišo ya TNA le tiro ya TM. Diteko tša bohlokwa bja dipalopalo di ra

gore diphapano ga se tša laetša phapano ye kgolo magareng ga bašomi ba tshepedišo ba basadi le ba banna. Phapano ye kgolo le yona ga se ya laetšwa mabapi le mengwaga, thaetlele ya mošomo, maemo a mošomo le lebaka leo mošomi a le tšerego a le mošomong. Mabapi le maemo a mošomo, ga se gwa ba le diphapano tše kgolo tšeo di hweditšwego magareng ga bašomi ba tshepedišo bao ba nago le dikgrata tša mathomo le bao ba nago le dikgrata tša bobedi. Dikutollo tše di direga gape ka bašoming ba go swana le bona gomme di ka thuša ka go kaonafatšeng ga maitemogelo a ka mošomong a bašomi ba bangwe ba ka dikantorong. Godimo ga fao, monyakišiši o dumela gore dipoelo tša dinyakišišo tše di tla thuša bolaodi bja yunibesithi le karolo ya lefapha la tlhabollo ya bašomi (HRD) go latela tshepedišo ye e nyakegago ya TNA. Se gape se tla kaonafatša tiro ya TM ya bašomi ba tshepedišo ka go netefatša gore dinyakwa tša bona tša tlhahlo di amana le mešomo ya bona, le gore di-TNA di a dirwa go netefatša gore dinepo tša yunibesithi di a fihlelelwa.

Mareo a bohlokwa

Bašomi ba Tshepedišo, Yunibesithi ya Dithutamahlale tša Maphelo, Talente, Taolo ya Talente, Tshekatsheko ya Dinyakwa tša Tlhahlo le Tshekatsheko ya Dinyakwa tša Tlhahlo.

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LIST OF ABBREVIATIONS

GTM	Global Talent Management
HE	Higher Education
HR	Human Resources
HRD	Human Resource Development
HSU	Health Sciences University
KSAs	Knowledge, Skills, and Abilities
O-J-T	On-The-Job Training
O-T-P	Organisation-Task-Person
SDA	Skills Development Act
SDLA	Skills Development Levies Act
SHRD	Strategic Human Resource Development
SMUREC	Sefako Makgatho University Research Ethics Committee
TM	Talent Management
TNA	Training Needs Analysis
TNA	Training Needs Assessment

CHAPTER 1

SCIENTIFIC ORIENTATION AND BACKGROUND

1.1 INTRODUCTION

Training refers to the action of imparting a specific skill to an employee with the view to empower them to perform a particular task. On the other hand, development deals with the general enhancement and growth of individual abilities through learning (Asfaw, Argaw & Bayissa, 2015; George & Jacob, 2016; Ologunowa, Akintunde & Adu, 2015). TNA of administrative staff, namely, secretaries and administrative officers remain important for the achievement of the organisations' planned goals and objectives. Therefore, administrative staff must be trained so that they can achieve the organisational goals. In order to address these training needs, the organisations, task and people (OTP) foundation framework of TNA model, should be used expansively.

One of the main components of OTP is that TNA identifies training needs at employee, departmental or organisational level in order to help the organisation to perform effectively (Khan & Al Zubaidy, 2016). TNA needs to be conducted, so that the priority training needs can be identified to assist in equipping the employees with the right skills for the organisation (Vinesh, 2014). Therefore, the role of the organisation is to manage the employees' talent for future skills (Kurgat, 2016). Vaiman, Haslberger and Vance (2015: 281) refer to talent as specified and in-demand knowledge, skills and abilities among individuals in critical job roles, and TM as a set of organisational procedures aimed to attract, develop, mobilise, and retain key people.

According to Collings, Scullion and Vaiman (2015) TM methods need to be more balanced among organisational needs and that they should be closely connected with employees' objectives and expectations to retain high potential talents. Therefore, the methods of TM have led to a variety of definitions of the concept. TM focuses on two significant dimensions; firstly, this includes the employees who are employed in key roles and those who possess high levels of talent (measured by their knowledge, skills, and abilities that add significant value) in an organisation. Secondly, it involves extra HRM

policies, processes, and techniques that are efficiently used to manage such talented individuals (Vaiman et al., 2015).

Administrative staff at the HSU include personnel who hold positions such as secretaries, administrative officers, personal assistants and clerks. These are normally referred to as support staff. Okolocha and Baba (2017) explain that a “secretary” could be defined as an officer, responsible for archives, communication, minutes of the meetings, and related matters of an organisation. The secretary should have the ability to think and act fast, especially, in an automated office. Therefore, to expand on the skills of secretaries, there is a need to measure their current skills, against the expected skills, in order to close the gap which exists as a result of lack of the required skills. The assessment of secretaries’ training needs is important, as secretaries play a crucial role in the accomplishment of organisational objectives (Okolocha & Baba, 2017). In this study, the administrative staff refers to secretaries and administrative officers working in the specific HSU.

1.2 BACKGROUND AND MOTIVATION

In terms of the legislation in South Africa, the Department of Higher Education, together with the Sector Educational Training Authority supports the view of training and development of employees in the workplace (Bezuidenhout & Nenungwi, 2012; Erasmus, Loedolff, Mda & Nel, 2015). Therefore, HRD practitioners have to identify the training needs, in conjunction with the workplace skills plan of the organisation and ensure that employees comply with the legislation.

Furthermore, it is the responsibility of the employer to ensure that employees comply with legislation regarding job-related training and development, by attending training aligned to the workplace skills plan, regularly. Erasmus et al. (2015) estimate that South African organisations spend an average of 3.13 percent of their payroll on training and development. Shaheen, Naqvi and Khan (2013) indicate that trained employees are more efficient and effective, compared to those that are untrained. According to Botha, Kiley, Truman and Tshilongamulenzhe (2013), ensuring that employees master the desired skills, has become the major focus of human resources development efforts in organisations.

Clinton, Emmanuel and Denzel (2016) found that the Skills Development Levies Act (Act 9 of 1999) (SDLA) and the Skills Development Act (SDA) 97 of 1998 include new rules that employment services should make learning and training programmes available. For the formerly deprived clusters, this has to give employees chances to advance new skills and be re-skilled, so they can find new marketplaces and explore technological inventions (Peterson, 2006).

Teffu (2014) indicates that workplace skills plans, in particular, detect the skills shortages at the organisation level and specify the scarce skills within a specific area and the budget. However, the South African government also needs to admit mistakes being made during the application of the policy of employment equity, such as TM practices and review; which may exacerbate the problem of skills shortages (Van Antwerpen & Ferreira, 2016).

Hurlimann, March and Robins (2013) allude to the fact that there is often complete neglect of administrative staff's work in higher education (HE) environments. Likewise, a study conducted by Barkhuizen, Mogwere and Schutte (2014) on administrative staff in HE found that all the TM practices are poorly applied and large gaps exist between the present applications and the perceived significance of talent review process, retention practices, talent development and commitment management.

The purpose of the Skills Development Act (SDA) 97 of 1998 is pivotal to the development of the skills of South African employees. This is made possible by the capacity of this piece of legislature to improve the quality of their lives, productivity in the workplace, and competitiveness of employers (SDA, section 2). In addition, the SDA 97 of 1998 encourages employers to offer employees opportunities to acquire new skills. In compliance with the act mentioned above, it is imperative that every employer, should ensure that the skills of the employees are continuously improved so as to achieve the organisational goals. To achieve the purpose of the SDA, it is essential to accurately identify the training needs of employees. Each individual organisation is responsible for the training of its employees, assessments of training needs, as well as a performance review for such employees (Clinton et al., 2016).

The HSU has experienced tremendous and rapid changes in 2005 as well as 2014 due to the dissolution from the merger with another university (Mukwawaya, 2015). The recent

demerger and the name change of the former campus to HSU have brought challenges which included staff members experiencing a lack of training interventions, organisational orientation and resources. Within this rapidly changing environment, insecurity intimidates staff members and may lead to a lack of motivation (Mukwawaya, 2015). Consequently, the university continues to work with the same administrative staff in a new or changing environment that has new or changed goals. However, with the name change and process changes aligned to the new university, there has not been much attention given to the needs of the administrative staff to be able to meet the organisational goals. This poses a number of challenges that include: tensions, obstructions, incapacity and a lack of motivation among staff.

According to Sefako Makgatho Health Sciences University's (2015) policy, this university is committed to and directed by the value of lifelong learning to training and development. The university supports the values embedded in the Constitution of the Republic of South Africa; namely, human dignity, equality, fairness and social justice (Dlamini & Mulaudzi, 2016; South Africa, 2016). These include adhering to the principles of integrity, academic freedom and excellence which are highly regarded by this institution (Sefako Makgatho Health Sciences University, 2015). Academic excellence rests itself on support by administrative processes. Therefore, there is a need to look into the needs assessment of administrative personnel to ensure efficiency in the support for academic excellence. This aligns with training and development of staff to undertake their activities.

Literature reveals that training is the process of learning, development, acquiring additional skills and consciousness of knowledge for an employee to improve on a specific job which can increase organisational performance (Asfaw, Argaw & Bayissa, 2015; Obi-Ankie & Ekwe, 2014; Raza, 2014; Saleem, Shahid & Naseem, 2011; Singh, Ram & Prasad, 2016). In addition, Obi-Ankwe and Ekwe (2014) and Nudy (2015) state that training is essential for personal growth opportunities of employees as it promotes the attainment of organisational objectives. Generally, TM focuses on the concepts of loyalty, job, fulfilment and organisational output (Kurgat, 2016). As a result, the relationship between TNA and TM lies on the job, task and the organisation.

AlYahya, Mat and Awadh (2013) support the view of training as a structured learning practice such as seminars and workshops. These practices are usually focused on improving specific skills. However, HRD focuses on all the essential skills the employees

in the organisation require if they are to be effective. Training could thus be considered as one of many different instruments available for HRD practitioners (AlYahya et. al., 2013).

Rama Devi and Shaik (2012) state that training enables the employees to acquire improved skills which leads to better performance. On the other hand, Nudy (2015) explains that training helps to effect synergy between what should happen and what is happening between the desired standards and the current level of work performance. Therefore, more employees should attend required training, so that the needed skills are acquired.

Asfaw et al. (2015) and Erasmus et al. (2015) found that for organisations to reach their goals, the main aim for HRD practitioners should be to increase their employees' competencies, especially when the employees are low on work performance due to a lack of knowledge. Therefore, organisations must invest more in their own employees' knowledge and skills, in order to realise their goals. A TNA process provides information on the training and skills development requirements of all members of an organisation.

Organisations, whether in the private or public sector agree that training and development are essential to the growth and development of the organisation (AlYahya et al., 2013). The HSU as well requires the TNA and TM following the changes brought about by the demerger.

1.3 BACKGROUND TO THE PROBLEM

The statement of a problem indicates the particular phenomenon of interest which is of importance to the researcher. The problem indicates the rationale for which the scientific enquiry is done, and therefore is the focus of the investigation. In this study the problem of interest is the apparent undefined TNA processes and TM structure with special reference to administrative staff in a changed environment of the HSU. Administrative staff in many organisations in South Africa, including the HSU, are an instrumental asset for growth to the organisation; and they are regarded as the backbone of any successful organisation (Destiny, 2016). Adam (2015) is of the view that there is no doubt that secretaries are the top office management and administration experts, globally.

In relation to the specific setting for this study, which is the HSU, the demerger of the two previous universities and the subsenquent institution of the new HSU brought about extensive changes. The changes include the new name, strategic focus and goals, and new processes as well as the vision of the university. However, the staff in the university remains the same. The administrative staff in this institution serve both academic, medical and student populations that are tied to the university. They are expected to perform activities in a highly efficient manner, dispite the changes that have been introduced after the demerger.

Failure to invest in the training needs of organisational personnel may result in an inability to keep abreast of the ever changing global technology (Aliata & Hawa 2014; Chinyere, 2016). Furthermore, it may also result in the administrative members of staff becoming redundant due to the fear of new technological advancements (Erasmus, et al., 2015). Okolocha and Baba (2017) state that secretaries should become more conscious of new technology and how they affect the management of archives and record keeping.

Lack of knowledge about TNA leads to training that is not planned (Balisi, 2014). The training needs assessment is the method of determining if a training need exists and if it does, what training is required to fill the gap (Balisi, 2014). The required skills that are needed for the administrative staff following a de-merger and subsequent reconfiguration of the administrative staff complement is essential.

The inconsistency between the present condition of administrative staff in terms of skills required and the preferred condition must be investigated to identify training needs. An investigation into the TNA process and TM practices of HSU for administrative staff may provide the university management and the HRD section with the information required in order to make decisions on the skills required.

1.3.1 PROBLEM STATEMENT

The TNA process and the TM practices for administrative staff at the HSU are not well defined. It is uncertain what these processes should look like for the new HSU in order to address administrative staff needs in terms of the TNA process and TM practices; as well as to ensure the attainment of the organisational goals. As indicated, the demerger put the spotlight on the obvious need for adequate TNA and TM for the administrative staff at the HSU. An investigation of the current, limited, TNA process and TM practices is crucial for the purpose of equipping all administrative staff with the necessary abilities to achieve

organisational efficacy. The skills of the administrative staff at the HSU need to be investigated and improved because any lack of required skills among the staff will constitute a drawback in the attainment of organisational goals. For this reason, it is important to investigate whether the perception of the TNA process and TM practices are linked within the HSU environment.

1.4 RESEARCH QUESTIONS

Based on the aforementioned research problem, the research questions were formulated. These were informed by the literature surveyed and the empirical study:

1.4.1 Research question relating to the literature review

The following research questions were formulated:

- How are the two constructs of the TNA process and TM practices conceptualised and explained by theoretical models in literature?
- Does a theoretical link between the perception of TNA process and TM practices exist?
- What are the different theoretical frameworks governing the TNA process and TM practices?

1.4.2 Research question relating to the empirical study

With regard to the empirical study, the following research questions were addressed:

- Is there an empirically tested relationship between the TNA process and TM practices at the HSU?
- What are the differences with regard to biographical variables (age, gender, job title, educational level, job level and tenure) of the outcome of the TNA process and TM practices?

1.4.3 Research questions integrating literature and empirical questions

- What recommendations can be formulated for conducting the TNA process and TM practices of administrative staff in a higher education setting?
- What recommendations can be offered to ensure that TNA facilitates TM of administrative staff within the university?

1.4.4 Aim of the study

The aim of this research was to investigate the link between the perception of TNA process and TM practice within an HSU environment; in order to make recommendations for training and management of talent for the administrative staff in the HSU university.

1.4.5 Research objectives

Research objectives in this study guided on the information to be obtained in preparation to achieve the aim of the study. The objectives of the study were to:

- investigate the link or relationship between the perception of TNA process and TM practices within the HSU environment.
- measure perceptions of administrative staff in terms of the TNA process and the TM practices at the HSU.
- evaluate the differences in the TNA process and TM practices with regard to demographic variables of age, gender, job title, educational level, job level and tenure.
- make recommendations to ensure that training and management of talent for the administrative staff are integrated into the development plans of employees in the university.

1.5 SIGNIFICANCE OF THE STUDY

Against the aforementioned background, this study intends to augment the human resource management (HRM) literature by illustrating the relationship between TNA and TM. Subsequently, the research seeks to investigate the nature of the link or perceived

relationship between the TNA and the levels of TM in an office work environment for administrative staff. The intention is to contribute to the field of HRM and HRD, with special references to practice within the office work environment. Developments in technology have changed the structure of numerous organisations and further lead to the emergence of office work environments where employees can communicate. This study is, therefore, a point of departure towards establishing the nature of the link between the TNA process and TM practice in the administrative staff's office work environment. This study may prove beneficial due to the link or relationships found. Furthermore, the level of significance between variables as well as the results of the exploratory factor analysis may work as a beneficial source of data for human resource advisors in reshaping needs and shaping the best human resource approaches to improve the training and TM of the administrative staff.

1.6 HYPOTHESIS

A hypothesis is the researcher's conviction about the outcome of the study; therefore, a hypothesis is referred to as a theoretical outcome (Spector, 2012). According to Antonius (2013), a research hypothesis suggests the likeliest answer to a research question. Accordingly, the major hypotheses of the study were as follows:

H_{o1}: There is no relationship between the perceived TNA process and TM practices in the HSU.

H_{o2}: There are no significant differences between the age, gender, job title, educational level, job level and tenure with regard to their perceptions of the TNA process and TM practices.

H_{a3}: Administrative staff at HSU perceive that the current TNA process and TM practices are not adequate.

1.7 DEFINITION OF TERMS

In order to provide the clear meanings of the words used in the study, improve accessibility, and achieve the purpose of this study, the researcher defined the terms below:

- **Administrative staff**: employees of the university, who are not members of the teaching staff and who are working in the offices that support academic activities within the university.
- **Health sciences university**: a university offering health sciences programmes and that serves the community and students with health services.
- **Talent**: is the ability that comes without training and it is often contrasted with a skill, which is an ability acquired and developed through practice.
- **Training**: is a highly useful tool that can bring an employee into a position where they can do their job correctly, effectively, and conscientiously. Training is the act of increasing the knowledge and skill of an employee for doing a particular job.
- **Development**: is a process that creates growth, progress, positive change or the addition of physical, economic, environmental and demographic components.
- **Talent management**: is the methodically organised, strategic process of getting the right talent on-board and assisting them to grow to their optimal capabilities keeping organisational objectives in mind.
- **Training needs analysis**: is a process that an organisation goes through in order to determine all the training that needs to be completed in a certain period to allow their employees to complete their job as effectively as possible, as well as progress and grow.

1.8 THEORETICAL FOUNDATIONS OF THE STUDY

Methodological assumptions are opinions regarding the nature of social science and scientific research (Mouton & Marais, 1996; Penalva, 2014). According to Punch (2014) methodological theory consists of methods on paradigms, and includes opinions. Methods of investigation are founded on assumptions – assumptions around the nature of the reality being considered, assumptions around what forms familiarity of this reality, and assumptions about appropriate methods of building knowledge of this reality.

- **Philosophical assumptions**

The study adheres to a positivistic worldview or philosophy. According to De Vos, Strydom, Fouché and Delport (2013) positivists believe that a phenomenon can either be observed or experienced, and that knowledge is acquired and derived through accrued and confirmed actualities. De Vos et al. (2013) and Creswell (2013) suggest some

fundamental, interrelated assumptions that the inquirer should ask in order to understand each paradigm. Therefore, the assumptions underlying the study were as follows:

- **Ontological assumption**

Du Plooy-Cilliers, Davis and Bezuidenhout (2014) explain ontology as the study of presence, reality or authenticity, containing the expectations that are prepared about certain occurrences. The key questions contracts with what certainty (reality) is, and how we identify what is tangible. In this research, the nature of reality is the respondents' awareness and understanding regarding TNA, TM and the required skills of administrative staff.

- **Meta-theoretical assumption**

Meta-theoretical assumptions indicate a commitment to the reality of the theories and laws of a particular paradigm (Creswell, 2013). The assumptions that are made about the training needs and skills competencies, are related to the person, and environment. In this regard, it is assumed that a person who is an administrative staff member, is in constant interaction with the environment, which is the University where the person is employed.

- **Epistemological assumption**

Bless, Higson-Smith and Sithole (2013) define the epistemology as "the study of ways of knowing about the world" and Du Plooy-Cilliers et al. (2014) define epistemology as the resources of the study of awareness. In this study, the assumption of the researcher is that, the knowledge, skills and attitudes required to perform their jobs to the desired standard are indepensable . It was assumed that the respondents would give honest answers to research related questions and would freely share their experiences. It was also assumed that the data would be recorded accurately, and that rational conclusions would be drawn from the available information.

1.9 CONCEPTUAL FRAMEWORK

A conceptual framework is an alternative way of depicting a set of related variables and outcomes in the study in an elaborative schematic diagram. It shows the key factors,

presumed relationships and possible outcomes of the research problem. The TNA and TM framework as well as the talent cycle were used for this study; and these are described in detail in Chapters two and three.

1.10 INTRODUCTION TO RESEARCH DESIGN AND METHODOLOGY

Research design is a plan that describes how the research will be undertaken and research methodology is the exposition of the total strategy for the study (Van Wyk, 2012). A quantitative exploratory and descriptive method were followed. This approach helped to generate an account of the reality in the university. The study was conducted in two phases in which Phase 1 entailed a literature review on TNA processes, TM systems and theoretical framework and models in preparation pertaining to these two aspects for evidence to highlight the importance of the TNA and TM. Phase 2 entailed the empirical study which was the research design and methods as well as the results of the study. Phase 2 is the outcome of the research. Detailed descriptions of each phase are provided in Chapters two, three, four and five.

1.11 DELIMITATIONS

The study was restricted to investigating how the core dimensions of the TNA process are linked to the TM practice within the HSU environment. The population of interest was administrative staff working on a permanent basis at the HSU. Though, by virtue of their office workspace, the study focused on administrative officers and secretaries only. Other administrative staff, such as administrative laboratory assistants were excluded from the study.

Since the study was limited only to respondents from the HSU, the outcome cannot be generalised to other universities or institutions of higher learning in South Africa or elsewhere. The research was conducted in English and restricted its focus to the TNA process and TM practices. When such a link or relationship is identified, the foundation data could be beneficial to future researchers where the aim could be to address issues pertinent to constructs of the TNA process and TM practice. The selected research approach was planned to establish the cause and effect of the link or relationship in order to explore whether such a link or relationship does in fact exist.

1.12 ETHICAL CONSIDERATIONS

The research was carried out with caution towards the University of South Africa's research ethics policy and all likely sources of harm were considered not prevented at all times. The ethics procedures of the institution were followed throughout the research processes. Taking part was voluntary and no remuneration whatsoever was given to subjects. Confidentiality was upheld at all times. Furthermore, the researcher obtained informed agreement from the participants. Ethical clearance was granted by the University research office (Annexures A & C).

1.13 CHAPTER LAYOUT

Six chapters of the study are presented below as follows:

Chapter 1: Scientific orientation and background

Chapter one presents the background and motivation of the study, research philosophy, background to the problem, problem statement, research questions, aims, goals and the significance of the study.

Chapter 2: Training needs analysis

This chapter presents: the relevant literature relating to the definition of administrative staff in HSU, the phenomenon of administrative staff, needs analysis, identification of training needs on the required skills, barriers to efficient training and management of organisational change on training or learning needs which stem from a performance gap between current performance and future desired performance.

Chapter 3: Talent management within the context of a higher education institution

This chapter presents the relevant literature related to the definition of talent and management of talent, different approaches to TM, the TM processes, with its purpose and significance analysed. Lastly, the potential conceptual framework on the interaction and link between effective TNA and TM is as well presented.

Chapter 4: Research methodology and design

Chapter four presents information on the research methodology used in this study as well as the target popuation and selection of a sample.

Chapter 5: Research results

Chapter five presents the results that were obtained from the data analysis, tables, figures and narrative explanations used to present the statistical analysis of the research findings.

Chapter 6: Conclusions, limitations and recommendations

Chapter six presents key results and conclusions that are drawn from the study as well as implications of the study. This was followed by the limitations and recommendations that emerged from the research findings.

1.14 CHAPTER SUMMARY

This chapter presented a short overview of the research project. It discussed the background to and motivation for the study, background to the problem, problem statement, research questions and aims, potential value add of the study, major hypothesis, the research design and research methodology of the study. The motivation for this study was based on the fact that identifying and analysing the TNA process and TM practices of administrative staff at a HSU following major organisational change, might aid the HSU and human resources (HR) professionals to develop a more committed workforce. In addition, no known research has been conducted on the TNA and TM of administrative staff in the context of a HSU.

Chapter two, which follows, will address the TNA process and describe various applicable theoretical aspects concerning TNA.

CHAPTER 2

TRAINING NEEDS ANALYSIS

2.1 INTRODUCTION

This chapter examines strategic human resource development (SHRD) as a context within which the TNA is practiced. The chapter goes on to explore the conceptualisation and the significance of TNA, the types of training needs, the TNA models and considerations of TNA, as well as the conceptual theoretical framework of the TNA. Finally, the chapter discusses historical theoretical perspectives on TNA, the success factors and the best practices of TNA. Taking into account the above thesis statement of this chapter, the information about TNA will assist in realising the need to invest in training administrative staff in organisations with the purpose to achieve excellent customer services.

According to Khan and Al Zubaidy (2016) an organisation that decides to increase its level of customer service as part of a corporate plan has a strategic plan to increase the competitive advantage of the university to introduce training programmes necessary for its success. Yousif, Ahmed and Osman (2018) indicate that TNA is a three-sided term, which consists of training (any activities to gain knowledge, skills or change attitude), needs (the gap between current and desired or required) and analysis (process for identifying needs and placing them in priority order). According to Khan and Al Zubaidy (2016) a training need is a shortage of skills or abilities, which can be reduced through training. Training refers to the action of imparting a specific skill to an employee, in order for him or her to do a particular job (Asfaw et al., 2015; George & Jacob, 2016; Ologunowa et al., 2015). TNA identifies training needs at employee, departmental or organisational level in order to assist the organisation to perform successfully (Khan & Al Zubaidy, 2016). In addition, the aim of the TNA is to make sure that training addresses current problems, is tailor-made to organisational objectives, and is delivered in an operative and cost-efficient manner (Khan & Al Zubaidy, 2016). Therefore, it can be argued that for training to be successful, the focus should be on TNA.

Altarawneh and Aseery (2016:191) define TNA as an investigation that is undertaken to determine the nature of performance problems in order to establish the underlying reasons and how training needs can address this due to individual performance. The assumption is that a previous process or step, for example a situation analysis conducted in the organisation, may indicate the possibility of the performance problem being due to a lack of skills and knowledge to improve productivity rather than personal, system problem, or a management problem. Thus, in cases where training focuses on the current situation, people might become aware of a performance problem, then do a situation analysis and only if the situation analysis indicates a possible knowledge skills gap, then a full and detailed TNA will be conducted (Erasmus et al., 2015).

Altarawneh and Aseery (2016) further explain that the TNA pursue information about first optimum performance; the real or present performance; the feeling of learners and the causes of identified difficulties and solution. Therefore, conducting an operative assessment confirms that training is the suitable solution to a performance shortage. However, training is not the solution to problems triggered by poor organisational strategy and insufficient resources (Altarawneh & Aseery, 2016). Balisi (2014) indicates that when the TNA is done properly, the solution will address the real problem. Therefore, the TNA can be considered to be the starting point in any training and development activities. Manna, Singh and Sharma (2016) indicate that the TNA was a systematic way of gathering data on existing employees' capabilities and skills demanded in organisation. It also helps to understand and analyse the implication of new and changed roles for employees under internal mobility such as promotion, transfer etc. Therefore, to get good training result, it should be done methodically step by step, starting with training need identification, developing and designing an appropriate training to serve the needs, training implementation according to plan and training programme evaluation to check that desired result had been achieved (Manna et al., 2016).

Hartoyo, Efendy and Utama (2017) indicate that the TNA is a systematic effort of organisational management to identify the underlying causes of inefficiency and ineffectiveness that happen in the implementation of employees' tasks. According to Balisi (2014) the TNA is the procedure of determining if a training need exists, and if it does, it identifies the type of training that is needed to fill the gap (Cole, 2004). Furthermore, the TNA refers to the organisational process of collecting and analysing data, that supports decision making about when training is the best option (or not) to

improve individual performances, define who should be trained, and exactly what content should be taught (Clarke, 2003). Therefore, management problems or systems should be addressed by other interventions and not just training employees for the sake of training. Instead, they should aim to continually perform targeted TNA in order to help administrative staff to achieve organisational goals in providing excellent customer services. The following section discusses the context of SHRD that could be understood in effecting TNA.

2.2 THE CONTEXT OF STRATEGIC HUMAN RESOURCE DEVELOPMENT

The conceptualisation of SHRD was first reconnoitered by scholars who argued for the enclosure of strategic viewpoints to complement the existing theory and investigation on HRD (Alagaraja, 2013). In addition, SHRD comprises the consideration of the impact of the general HRD strategy on an organisation (Alagaraja, 2013).

Authors such as Meyer et al. (2012) define SHRD as a mixture of the strategic process, which if properly aligned and integrated, are directed at providing for learning of all relevant stakeholders. Erasmus et al. (2015) explain that SHRD is geared to the strategic business plan to support in implementing the HR strategy by refining the knowledge and skills of the employees in the organisation. Therefore, HRD strategy is defined as the design of planned and unfolding events that emphasises on developing skills in order to achieve current and future strategic goals. However, SHRD means that the procedure of changing an organisation, respondents outside it, groups inside it, and the employees within the organisation through strategic learning so that they retain the knowledge and the skills required in the future (Altarawneh & Assery 2016; Erasmus et al., 2015; Huka, Mbugua, & Njehia, 2015).

Erasmus et al. (2015) define HRD as a set of efficient and planned activities, considered by an organisation to provide its members with the opportunity to learn required skills, in order to meet current and future job demands. This can only be realised by putting training in place (Altarawneh & Aseery, 2016). Therefore, HRD refers to the procedure for increasing the rational, affective and behavioural abilities of all people and organisations in the world (Erasmus et al., 2015).

Erasmus, Loedolf, Mda and Nel (2013) found that SHRD incorporates long, intermediate and short-term learning plans designed to nurture the necessary talent. The goal of SHRD is to provide the strategic learning experiences on the knowledge, skills and abilities (KSAs) necessary in the future by numerous groups of organisational stakeholders including workers, customers and suppliers among others (Clardy, 2008). Therefore, HRD effort is tied formally to providers, to distributors of talent within an organisation or outside the particular organisation (Erasmus et al., 2013).

Worldwide skills gaps have forced businesses to institute aggressive TM strategies to attract, advance and optimise the available talent in the broader marketplace (Meyers et al, 2013). Managing talent inside the organisation has been identified as the device capable of enabling the attraction, development, and retaining of the necessary skills and knowledge within the organisation through complete strategy, practices, and interventions (Erasmus et al., 2015). Manna et al. (2016) found that training and development of current employees were more beneficial than hiring new talent for organisations, as existing employees already know the organisational culture, working pattern and their co-workers. TM is the additional administration, procedures and opportunities that are offered to individuals in the organisation who are deemed to be “talent” (Yasin, 2014). TM aims at developing and positioning the right people at the right job at the right time, and give them the right setting to show off their abilities in the best possible way for the organisation (Marjani & Safaee, 2016). Apart from TM, managing the talent of employees within the organisation has been identified to provide employees with the opportunity to grow and acquire knowledge.

Currently, there is limited literature relating to TM in line with the work commitment and service quality of non-academic employees (administrative staff) in higher education institutions. Hence, researchers such as Van Antwerpen and Ferreira (2016) and Balisi (2014) highlight that studies on support staff in higher educational settings are still limited. Therefore, the TM and development of the identified TNA for administrative staff in HSU and the influence on their work commitment is imperative. The current administrative staff at HSU should identify their training needs to be trained on, rather than the university appointing new talented employees.

A planned TNA, linked with the goals of the organisation, will address the identified gaps of administrative staff by recommending the best training solution. Therefore, the TNA is

a procedure of determining if a training need exists and if it does, what training is necessary to fill the gap (Balisi, 2014). In addition, the TNA aims to make sure that training addresses the current organisational problems, and is tailored to support organisational objectives. Therefore, a training need may be viewed as a shortage of skills that could be eliminated by means of training (Khan & Al Zubaidy, 2016). Training is aimed at preparing the workers in doing the work now (Hartoyo et al., 2017).

Erasmus et al. (2015) point out that in a very economical global market where it is problematic to find top performers, many organisations are moving to advance internal talent programmes. Such programmes require a strategic method that develops the talent of all employees in order to close the current knowledge and skills gaps. Therefore, the organisation needs to become a high-quality employer by increasing an employer trademark so that the talented employees do not have to look elsewhere for employment (Erasmus et al., 2015). Nwoke, Worlu and Akinbiyi (2016) pointed out that training and development have the perceived capacity to hold talented individuals, and in accordance with the psychological contract employees that perform highly, regularly see development as an advantage which they are entitled to.

In addition, when employees see experienced individuals gain knowledge from the training they get, their company normally benefits from their increased dedication, workers' fulfilment and retention (Nwoke et al., 2016:130). The analysis of training needs has a close association with planning workouts where the best design is preceded by finding the problems. In addition, the TNA is the strategic contributions in the planning process (Hartoyo et al., 2017). In order to ensure that SHRD is purposeful, it is essential at the outset to investigate the nature and the extent of the general strategic business plan of the organisation, and specifically the HR management role in this strategy (Erasmus et al., 2015). The next section discusses the conceptualisation and definition of the TNA that could be employed in effecting this.

2.3 CONCEPTUALISATION AND DEFINITION OF TRAINING NEEDS ANALYSIS

Iqbal and Khan (2011) report that the concept of the TNA has been shifted from conducting a training activity to every proactive programme used for developing and implementing varied practical solutions for individuals, work groups and organisations. Training needs may be individual or group (Bansal & Tripathi, 2017). As a result, the TNA

played a key role for organisations to motivate employees for their better career growth and performance (Manna et al., 2016). Furthermore, Iqbal and Khan (2011) cite Cheng and Dawson (1998) that the concept of the TNA is now considered at a strategic level as it settled relations with several human resource functions. Altschuld and Lepicki (2010) defined the TNA as a formal process to obtain information on the two states, namely current versus desired, compare them, identify gaps and arrive at needs-based priorities for organisational activities.

Erasmus et al. (2015) explain the TNA as the process of analysing change between what is currently occurring within an organisation on a particular job or jobs, and what is essential either at present or in the future, based on organisations' operative and planned goals. In addition, the TNA is the process of assessing the organisation, separate employees and employees' tasks to discover exactly what gaps exist between what people know, do, and what they should know, and feel in order to perform proficiently (Altarawneh & Aseery, 2016; Erasmus et al., 2015). According to Driscoll and Taylor (1992) for the past thirty years, and thirty years since 1992 theoretical and empirical perspectives on the identification of training needs within organisations have been based upon this three-way framework. Therefore, a job description is a unique marker to critically appraised the TNA as well as career development (Yousif et al., 2019).

Altarawneh and Aseery (2016:191) define the TNA as "an investigation that is undertaken to determine the nature of performance problems in order to establish the underlying reasons and the way in which training needs can address the problem". According to Balisi (2014) TNA is the procedure of determining if a training need exists, and if it does, it identifies the type of training that is needed to fill the gap (Cole, 2004). Therefore, the TNA is a systematic effort of organisational management to identify the underlying causes of inefficiency and ineffectiveness that happen in the implementation of employees' tasks.

Moreover, the training efforts should be done to cover the lack of knowledge and skills of workers through analysis at the organisational level, position and individual (Hartoyo et al., 2017). Training need is important to cover the lack of knowledge and skills of employees through the analysis on the three levels of organisation, task and individual.

TNA is the procedure of defining if a training need occurs, and it ensures what training is essential to seal the gap (Cole, 2004). In addition, a training need happens when there is

a gap between what is required of a person to achieve the work proficiently and what the employee know. The conservative approach to the TNA has frequently considered training as the only solution and overlooked non-training issues (Stone, 2009). Therefore, the TNA is designed to identify performance gaps that can be remedied by training (Tracey, 2004). In order to fill this gap, training is essential (Bangura, 2017). Therefore, the function of proper needs analysis is to identify the training goal (Kozlowski & Salas, 2003). The study conducted by Manna et al. (2016) found that the need for training might occur due to various reasons such as differences in values and cultures. Hence, the appropriate training of administrative staff identified should be improved through TNA.

George and Jacob (2016) explain that the TNA is an assessment process that assists as a problem-solving tool for determining what training needs are required. In addition, the TNA is a complete study inclusive of two phases (Iqbal & Khan, 2011). The first diagnostic phase identifies inconsistencies among performance standard, current performance, current competence, and then ranks these inconsistencies by prioritising them in order of severity. The final curative phase finds out that the causes of the prioritised discrepancies, and then decides to use training, non-training, or both types of interventions for their solution (Iqbal & Khan, 2011). Mangkunegara (2013) argues that the TNA is a systematic study of an educational problem with the gathering of data and information from numerous sources to obtain the additional problem-solving skill. HSU should consider training administrative staff to close the performance gap.

The definition of the TNA from Erasmus et al. (2015) is applicable and useful to guide this study. It highlights the interplay between what is currently occurring within an organisation on a particular job or jobs and what is needed in the future, based on organisations' operative planned goals. Moreover, Hartoyo et al. (2017) support this view that the TNA is a problem-solving instrument to determine current and future challenges that training and development programmes must meet. This definition will guide the empirical measurement of the appropriate TNA.

Erasmus et al. (2015) argued that conducting the TNA ensures that funds are set aside to address training and development problems. A TNA is only the first serious stage in any training phase. Hence, the TNA is a simple method of identifying the current gaps in the knowledge, strengths, and the weakness in the procedure that enable effective training programmes being delivered (Hartoyo et al., 2017). Additionally, the TNA is the

right step to design an applicable, cost-effective training programme with clear priorities setting to achieve specific knowledge, skills, and practice (Yousif et al., 2019). Therefore, the TNA is one of the prime factors to rise the knowledge, skills, abilities, and competency of the employees to achieve predictable individual and organisational performance (Mazhisham, Khalid, Nazli, Manap & Hussain, 2018). The TNA of administrative staff should be considered as the key factor and first step in any training in order to increase the knowledge, skills and abilities to achieve the anticipated individual and organisational performance.

Kraiger (2003) indicates that there is still relatively little theoretical and empirical research on the TNA. The theoretic and methodological characteristics of the TNA scientific knowledge are, somehow, unknown (Ferreira & Abbad, 2013). Therefore, it seems that much of what was recommended by formative authors (Mahler & Monroe, 1952; McGehee & Thayer, 1961; Moore & Dutton 1978, among others) is still not completely integrated into TNA research and practice. In addition, many studies conducted were in professional jobs like those for nurses, physicians, and medical laboratory technicians. Hence, there is a lack of research on TNA conducted by university staff (Yousif et al., 2019). As a result, there is lack of research on TNA of university administrative staff.

From the above discussion it becomes clear that TNA is a process of finding out what an employee is required to do and to perform the work more effectively. Then, the TNA of administrative staff in HSU aims to identify the gap between what the job demands for the administrative staff to do and what the administrative staff will actually be doing. The gaps that the job demands and what will actually be done, are the transformation of what the administrative staff does and what the organisations' real expectations of administrative staff in relation to their job are. In conclusion the researcher considers that the gap between present and desired results direct towards training so that the gap can be minimised. The TNA of administrative staff, namely secretaries and administrative officers, remains important for the achievement of the organisations planned goals and objectives. Therefore, administrative staff should be trained to ensure that they achieve the university's goals.

Nudy (2015) states that among numerous human resource management practices, the training policy plays a significant role in the progress of human resources training and

development. The following section discusses the purpose and significance of TNA that could be employed in effecting this.

2.4 PURPOSE AND SIGNIFICANCE OF TRAINING NEEDS ANALYSIS

Denby (2010) indicates that the requirement to any training investment should be the completion of a TNA, Without it, the valuable budget may be wasted on coaching and guidance that is unnecessary. In addition, it will not deliver a return on investment through the delivery of a positive impact on the bottom line. Cole (2004) explains that TNA is the procedure of identifying if a training need exists and it identifies what training is necessary to bridge the gap. Five significant processes are as follows:

- Authority and management readiness in performing needs analysis
- Understand the work situation of the organisation
- Focus on gaps and training needs
- Plan for training implementation
- Management reporting (Hartoyo et al., 2017)

Manna et al. (2016) indicate that gap identification and minimisation of it would help organisations to predict demand and supply of competent employees and develop skill inventories for future use. The skills inventories are such as broadening job responsibilities, cross domain functional assignments, as well as business decision for rightsizing and downsizing.

From the above it is clear that the main purpose of TNA is to find performance gaps and determine if the problem can be solved by training. Needs assessment is a "road map" to attain a clear goal. The TNA process can be identified from the gap in performance for example, the gap between the real performance and the anticipated performance (Hartoyo et al., 2017).

Huka et al. (2015) explain that the purpose of TNA in individual’s development cannot be over emphasised. Because of this, TNA is vital for effective development of training aims since it enhances the probabilities of realising positive training impact on the learners (Huka et al., 2015). The crucial role of TNA in human ability development will eventually result in administrative staff and organisational productivity.

Muma, Iravo and Omondi (2014) and Ologunowa et al. (2015) found that training needs assessment is the first step in the creation and identification of an effective and efficient training programme since it forms the basis for:

- determining instructional objectives
- selection and design of instructional programmes
- implementation and evaluation of training delivery

Training cannot resolve problems caused by poor system design and inadequate resources (Sorenson, 2002). Training should not be seen as a means of satisfying employees only, however, it should consider the needs of the organisation (Ologunowa et al., 2015).

Teffu (2014) explains that an active approach to learning and development has to start with a complete TNA process, so that the organisation, divisions and people can identify their specific needs. The training needs process has a close link with the assessment of training and development as the objectives of the programmes should be measured as part of the TNA process (Teffu, 2014).

Kaur (2015) suggests that there is a necessity for training and development in all organisations. Erasmus et al. (2015) also explain that training is the only solution to address the problem. Training enables organisations to make better decisions and resolve problems more efficiently. Hence, each organisation should offer training to their employees. On that account, these employees would be able to take good decisions, resolve problems efficiently, handle pressure and tension effectively, and contribute to organisational performance and progress.

Asante and Alemna (2015) indicate that the training and development programme is an important issue of career progression for all the employees in an organisation. Asfaw et al. (2015) stress that the significance of training in current years has been inclined by the comparative attainment of training and development organisations' goals. Only if proper TNA has been conducted and training is targeted, training will address the problem.

Obi-Anike and Ekwe (2014) present that the training of employees must be an on-going activity to create intellectual capital and help the employees to learn practical aspects of

their jobs. Vinesh (2014) recommends that the organisation should put in place a training and development strategy or plans with the intention of enabling all employees to give quality services.

Altarawneh and Aseery (2016) explain that TNA pursue information about first optimum performance; the real or present performance; the feeling of learners and the causes of identified difficulties and solution. Therefore, conducting an operative assessment confirms that training is the suitable solution to a performance shortage. However, training is not the solution to problems triggered by poor organisational strategy or insufficient resources (Altarawneh & Aseery, 2016). The TNA that is done properly will ensure that the solution address the real problem (Balisi, 2014).

Standard TNA takes into account different aspects that may require the needs for training. These factors include organisation, employee and task analysis. Therefore, there is a need for measuring current levels of skills, knowledge and approach in the focus in order to establish skills gap (Huka et al., 2015).

According to Huka et al. (2015) TNA is vital for successful development of training goals and increases chances of realising positive influence on the learners. Employees should be skilled and developed to meet their own job needs and the needs of the organisation. Therefore, organisations have the responsibility to develop and apply training and development systems to support them to achieve their goals (Muma et al., 2014).

Therefore, organisations have to analyse training needs more efficiently. They have limited budgets and training should be done effectively and efficiently. Ologunowa et al. (2015) conclude that training and development programmes are important requirements of survival for organisations that promote persistence in employment performance. They also highlight the benefits of TNA as to:

- increase productivity
- improve the quality of work and raise confidence
- develop new skills, knowledge, understanding and attitudes
- use new tools and equipment effectively
- reduce waste, accidents, turnover and other overhead costs

- fight obsolencence in skill, technologies, methods, products, markets and capital management
- bring incumbents to the level of performance for their job
- improve organisational development and ensure continuity of leadership
- ensure the survival and growth of the organisation (Hartoyo et al., 2017)

Taking into account the above discussions,TNA becomes very important in the organisation, and employees who have not had sufficient knowledge as at the period of employment, may be trained by effective training for improved efficiency, effectiveness and high productivity (Ologunowa et al., 2015). Huka et al. (2015) recommend suitable TNA methods to identify and cluster specific training needs. Therefore, numerous TNA methods like observations, customer feedback and interviews, affect the remaining influence of diverse TNA methods to the transmission of commercial skills (Agochiya, 2009; Goad, 2010; Huka et al., 2015).

Employee's training needs can be identified through business systems such as the skill gap analysis, training needs assessment, performance appraisal, counselling session and job evaluation (AlYahya et al, 2013). Therefore, the training needs of administrative staff should be identified, and employees should be given a chance to improve the necessary skills required to do the job.

Finally, Basili (2014) states that a well organised TNA will address the identified problems and make adequate plans for assets, time and expertise needed. A planned TNA linked with the goals of the organisation, will address the identified gaps of administrative staff by providing training as the required intervention.

The previous section positioned TNA within the realm of SHRD and also provided insight on the strategic importance of TNA. TNA was conceptualised and practical application methods and models were discussed. Although all of these elements were necessary, there must be a well planned programme to consider HRD so that the need can be appropriately addressed. The following section discusses the TNA and training the could be employed in addressing the needs.

2.4.1 Training needs analysis and training

(a) Importance of training needs analysis from a business perspective

Worldwide organisations have realised the significance of training and regarded it as a commitment and retention tool than expenses (Terera & Ngirande, 2014). Sanghaik (2012) indicates that TNA is an important business plan which prepares the organisation's human resource function for unavoidable change and also provides opportunity to improve technology, systems, structures and the nature of work itself. Therefore, TNA is very essential and failure to conduct a TNA may lead to costly mistakes such as a total waste of training budget (Cekada, 2010; Denby, 2010). In addition, TNA is a systematic method to conclude whether training needs exist in an organisation (Bhattacharyya, 2015).

According to Blanchard and Thacker (2007) TNA is essential because it aids to determine whether training can correct the performance problem. Also, TNA points out that employees lack necessary knowledge, skill, and attitude (KSA) to do the job, for which they need training. The KSA lack obstacles need to be known and be removed by providing the correct training to the right people (Blanchard & Thacker, 2007). TNA is considered as the first critical phase in any training cycle (Altarawneh & Aseery, 2016; Hartoyo et al., 2017). Bhattacharyya (2015) states that TNA is the first step to design the training programmes that can assist in meeting the performance gap of workers. TNA enables finalising a training plan for an organisation, systematically exploring all the possible alternatives (Bhattacharyya, 2015).

TNA focuses on the needs of the individual employees, group of workers and the entire organisation (Bhattacharyya, 2015). However, Altarawneh and Aseery (2016), Balisi (2014), Bhattacharyya (2015), Blanchard and Thacker (2007), Enojo, Ojonemi and Williams (2016), Hartoyo et al. (2017) and Miller and Osinki (1996) found that organisational needs, operational or task needs and individual needs are three stages required to identify training needs. In addition, TNA identifies training needs at employee, departmental or organisational level in order to assist the organisation to perform successfully (Khan & Al Zubaidy, 2016). The aim of TNA is to ensure that training addresses existing problems, is tailor-made to organisational goals, and is delivered in

an effective and cost-efficient manner (Khan & Al Zubaidy, 2016). It is worth noting that HSU does not do this; thus, the reason to conduct this study.

Ologunowa et al. (2015) state that training, re-training and development of employees are seen as vital for any organisation because of the challenges posed by current technology. However, there is no restriction on the training of pre-merger employees. The pre- and post-administrative staff at HSU need to be trained so that they can be familiar with the new technology.

Training has become extremely significant as it provides employees with insufficient experience at the time of their employment the opportunity to increase their technological skill by attending effective training for improved efficiency, success and high productivity. However, Shaheen et al. (2013) pointed out that training also increases the organisation's productivity, efficiency, output and income as well as additional results that are associated with the training. Training thus proves to be beneficial both on an individual and organisational level. Nazli, Sipon and Radzi (2014) state that the achievement and failure of training is dependent on the identification of right employees for a training programme. Hence, TNA ensures a right employee involvement in a training programme. In particular, the development of administrative staff within the organisation will contribute to the employees being familiar with technology, well trained, extremely skilled and more valued to the organisation than those who are not developed.

(b) Training from a business perspective

Training is defined as "a systematised tailor-made programme designed to suit the needs of a specific organisation for emerging certain attitudes, actions, skills and abilities among employees, regardless of their functional level" (Bhattacharyya, 2015:32). In addition, it is considered as a means of improving the knowledge, skills and behaviours of workers to enhance their operative and efficient functioning on their job (Andoh, Appiah & Adom-Nyankey, 2016). Moreover, training is one method among many for redressing performance deficiencies (Clardy, 2008).

Training is not just putting a large percentage of workers through some training. It should be viewed as a set of integrated processes in which organisational and employee needs are analysed and reacted upon. However, this must be done in a rational, logical and

strategic manner (Blanchard & Thacker, 2007). Training is not only a means of arming employees with skills they require to perform their jobs, it is frequently deemed to be representative of an employer's commitment to their work force (Ngèthe, 2014).

Kayode (2001) is of the view that training is essential for development of new skills or knowledge and use of new kit and tools correctly. Therefore, training implies the development of particular skills to prepare people to carry out specific tasks successfully (Effah, 1998). According to Rothwell and Whiteford (2012) training is short term in its focus and is delivered when employees require specific knowledge, skills and attitudes to execute their jobs successfully. However, training is believed to be effective when the training outcomes match with their goals (Cobblah & Van der Walt, 2017). The argument advanced is that for training to be seen as the right training that enriches employees' performance and morale, it should be well-aligned to the institutions' workplace skills plan (Teffu, 2014).

In particular, the training of administrative staff within an organisation will contribute to the employees being familiar with technology, well trained, extremely skilled and more valued to the organisation than those who are not trained. There should be a prioritised organisational training plan to consider the training needs in order to achieve the organisational goals. TNA and training complement each other. The following section discusses the process of TNA.

2.5 THE PROCESS OF TRAINING NEEDS ANALYSIS

According to AlYahya et al. (2013) and Ologunowa et al. (2015), training needs can be categorised into two groups; namely, organisational training needs and individual training needs. In addition to organisational and individual needs, Balisi (2014), Enojo et al. (2016), Huka et al. (2015) and Muma et al. (2014) are of the opinion that the TNA process normally includes task analysis. Furthermore, TNA focuses on the needs of the individual employees, group of workers, task and the entire organisation. Thus, it is important to conduct all three analyses, because information from the three analysis informs the decision to assign money and time for training as well as to ensure that the training is directly linked to the organisation's policy plan (Balisi, 2014). In light of the above, it is important to conduct TNA process to organisational, task and individual analysis to achieve the organisational plan.

In addition, Balisi (2014) explains that there are severe limitations on TNA processes in the public service because organisations were considering the individual need analysis when measuring the training needs. The study conducted by Driscoll and Taylor (1992) indicate that for more than the past two decades, theoretical, and empirical viewpoints on the identification of training needs within organisations have been based upon a tripartite or three-way framework, of namely, organisation, task and individuals.

In addition, McGehee and Thayer (1961) proposed that assessment of training needs involves three types of analysis, that is, organisation, operational (task) and person analysis. Therefore, individual, task and organisational need analysis should be connected and organised (Altarawneh & Aseery, 2016). Apart from individual analysis when measuring training needs, it is important to include organisational and task needs analysis. It is very imperative that HSU analyse the TNA of administrative staff on the tripartite framework of organisational analysis, individual or person analysis and task analysis for the achievement of the organisational goals.

2.5.1 Organisational level training needs analysis

Organisational analysis was initially conceptualised by McGehee and Thayer (1961) as focusing on where in the organisation training could be utilised based on the organisational goals. Balisi (2014) found that organisational level TNA decides where training is required and in what conditions the training will be conducted. However, organisational analysis requires studying and understanding organisational culture, values that guides the organisation, vision and mission (Huka et al., 2015). In addition, organisational analysis is based on internal organisational environments that impact the achievement of organisational goals, that has been recognised in accordance with the vision and mission of the organisation.

Organisational level includes:

- The vision and mission of the organisation
- Funds and distributions
- Internal factors causing problems
- The impact of factors causing the problem (Bansal & Tripathi, 2017; Hartoyo et al., 2017)

According to Erasmus et al. (2015) the starting point of the needs analysis process should be a business plan. In principle, training should be matched with the organisations' mission, strategy, goals and culture. However, organisational needs analysis, also aids to identify the allocated funds for the training and development programme and identify capacities of the actual weaknesses that can be improved by training (Altarawneh & Aseery, 2016). Therefore, organisational level TNA is dependant on top management's support. The planned and active policies as well as the task analysis in HSU need to be reconsidered.

2.5.2 Individual level training needs analysis

Individual or person analysis serves to identify personnel who need training, via performance appraisal, proficiency testing and other methods of measuring job performance. Huka et al. (2015) state that an employee in an organisation is considered in a job position in relation to his or her skills to undertake certain tasks. On the other hand, Hartoyo et al. (2017) explain that individual analysis is required to know how each employee performs when undertaking the job. The change between the anticipated performance and the actual performance is the need for training of the employee. Khan and Masrek (2017) found that on the individual level, the needs analysis evaluates training needs according to the employee's performance, attitude and observations.
Individual needs analysis emphasises how well employees execute their jobs and what skills, capabilities and knowledge they use to conduct those jobs (Altarawneh & Aseery, 2016). It implies that TNA is done in such a way that it considers what skills, capabilities and knowledge the employees need to be able to do their jobs. Furthermore, individual analysis focuses on identifying who should be skilled and what training is required by the individual (Rikkua & Chakrabartyb, 2013).

According to Bansal and Tripathi (2017), individual or person or people analysis is where you analyse how well the group or individual performs the task or job. Moreover, a variety of tools are available to assess the extent of teams and individuals' skills, knowledge and abilities. These include:

- Interviewing staff (about the job)
- Observation on-the-job
- Job profile (Bansal & Tripathi, 2017)

The administrative officer and the secretaries at HSU should be given an opportunity to attend training programmes in order to fill the gap between the actual performance and expected performance to be achieved.

2.5.3 Task level training needs analysis

Operation or task analysis entails setting performance standard or criteria, describing tasks to be completed. Furthermore, task analysis defines how employees perform a job. The resolution of this analysis is to control what should be given to employees so that employees can do the work in accordance with the level to be attained. In addition, task analysis needs cautious testing of the work to be achieved after training (Hartoyo et al., 2017). As a result, task or operation analysis entails setting performance standard or criteria, describing tasks to be completed.

Altarawneh and Aseery (2016) define task analysis as a procedure of identifying the purpose of a job and its constituent's parts, and stating what must be learned in order for them to perform efficiently. According to Bansal and Tripathi (2017), the task or operational level is concerned with what KSAs are required to perform certain jobs or task. The information can be gained through:

- Quality assurance procedures
- Interviewing Head of departments
- Obtaining job description (Bansal & Tripathi, 2017)

Furthermore, task analysis identifies the nature of the tasks to be performed on the job and the KSAs required to perform these tasks (Rikkua & Chakrabartyb, 2013). This provides data on job contents and necessary skills provided in the job descriptions, capability models, performance appraisal standards and job structure (Khan & Masrek, 2017). Therefore, the content of training need should match the task as well as specifying the necessary requirements for achieving it (Ibegbulam & Eze, 2016). It is important that the content of training need skills tie with the task.

According to Erasmus et al. (2015), group needs are linked to a number of employees doing the same type of work who lack certain skills and refer to a particular task level or

category of employees. Furthermore, this group needs should enable the training and development practitioner to identify requirements in respect of specific job-related training, interventions such as team-building programmes. The group needs requirements of the administrative staff at HSU should be identified in respect of their particular task for the training interventions.

In addition, Huka et al. (2015) found that TNA play an important role in acquirement of skills, knowledge and change of attitude of the employees. However, George and Jacob (2016) indicate that TNA is an assessment procedure that serves as a problem-solving instrument for the purpose of what training needs to be attended. Therefore, training needs should be identified during the performance appraisal of individuals by identiying the training needs required for administrative staff at HSU. The following section discusses the types of training needs.

2.6 TYPES OF TRAINING NEEDS

The TNA is a continuing process of collecting data to determine what training needs exist so that training can be established to help the organisation achieve its objectives (Altarawneh & Aseery, 2016). However, the types of training needs are either formal or informal (Lai & Smith, 2017).

2.6.1 Formal training needs

Erasmus et al. (2015) state that formal training is designed to follow South African Qualification Authority (SAQA) recognised qualifications or certificates that have measurable objectives and outcomes. Lai and Smith (2017) define formal learning as related to a formal course that often leads to a qualification. In addition, formal learning happens in an educational institution such as universities during a certified course time. Hence, the administrative staff of HSU should all be allowed to enrol for any qualification related to their job with any institution of their choice thereby learning and gaining more knowledge in order to improve their performance and achieve the organisational goals.

2.6.2 Informal training needs

Informal non-structured training and development offers regular guidance in the workplace and the training is more experimental concentrating on the development of functional knowledge and practical skills (Erasmus et al., 2015). According to Awino (2016), on-the-job training uses the fixed or existing workplace tools, mechanisms, booklets, equipment, knowledge and skills necessary for an employee to learn efficiently to execute his or her job. Therefore, the university should provide the training required in order to improve a base educated and skilled administrative staff either on-the-job or off-the-job training.

Off-the-job training and development method include conferences, seminars and workshops (Nwanzu & Uche-Okolo, 2017). Therefore, training workshops such as team building and conferences focus on coaching administrative staff on how to do their current jobs, and assist them to acquire the knowledge and the skills that they need. Training can, if suitably designed and managed, help employees to acquire knowledge and skills. Ferdous and Razzak (2012) are of the view that in order for a training programme to be prosperous, a TNA has to be conducted prior to the commencement of the programme. This means that the TNA should take place before the design or implementation of the actual training. The needs analysis should be conducted to determine whether training is linked to job or organisational goals and whether it empowers the programme evaluation, since the results of training can be measured against the specific pre-determined objectives. Numerous models exist in literature on how training needs should be conducted to produce the organisation's desired results. The following section discusses the models for conducting or executing TNA.

2.7 MODELS FOR CONDUCTING / EXECUTING TRAINING NEEDS ANALYSIS

The application of the three-level model approach of organisation, task and people or individual analysis need to address the training needs of the administrative staff. This models are suitable for TNA and it offers a systematic process conducted prior to designing a training programme which involves determining the needs at organisational, operational or individual level, identifying what kind of training is needed and finally identifying who are the individuals that need to be trained or retrained.

The three-level O-T-P model, Michalak's and Yager's model and the proposed TNA practice model are discussed below.

2.7.1 Three-level O-T-P model – foundation framework

Mazhisham et al. (2018) found that more than a few TNA models have been presented in the literature (McGehee & Thayer, 1961; Mager & Pipe, 1984; Rossett, 1987; Rummler & Brache, 1995; Taylor, O'Driscoll & Binning, 1998; Leigh, Watkins, Platt & Kaufman, 2000) which are known as organisation-task-person (OTP) model of TNA. The study conducted by Rikkua and Chakrabartyb (2013) and Mazhisham et al. (2018) indicate that the OTP three-level conception of needs assessment by McGehee and Thayer (1961) is considered the core framework for needs assessment in the theoretical literature (Holton, Bates & Naquin, 2000), and most of the models developed since have been based on this three-level framework.

According to Muma et al. (2014), organisational level analysis involves a sound review of all resources available, top management's support and strategic and operational plans. The task analysis focuses on what the employee must learn in order to perform well in the job and, thus, what the training should cover, and the person analysis identifies who, in the organisation, will need training and for what purpose. Therefore, any gap(s) discloses a training need (Muma et al., 2014).

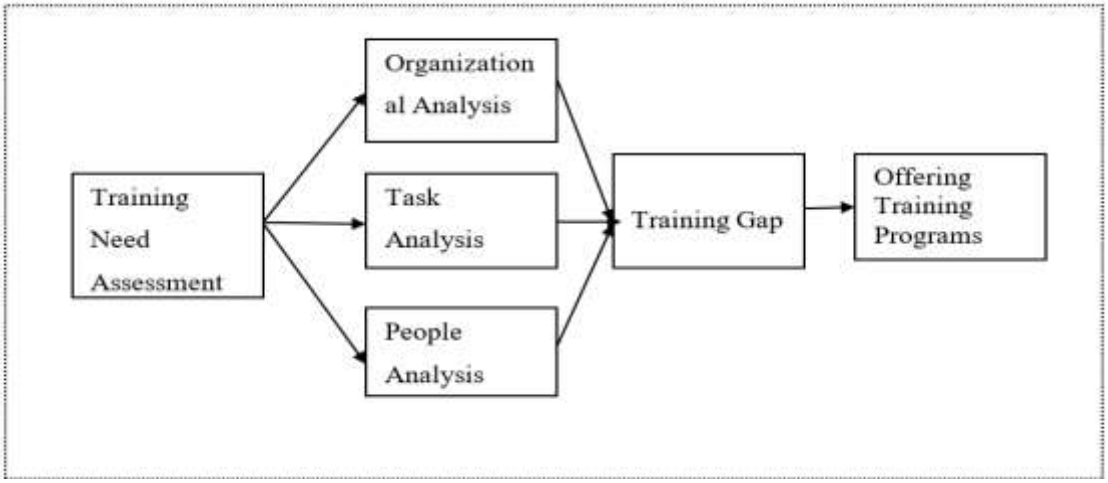

Figure 2.1 Three-level O-T-P model foundation framework

Source: Adapted from Akther, Javed and Islam (2018:88)

Furthermore, Clarke (2003) stated that the OTP model integrated macro through to micro analyses, arising from an investigation of training needs to meet organisational needs, task or job needs through to the specific needs of the individual or person. All three levels of the needs analysis are correlated and the training needs should be identified at all levels (Mazhisham et al., 2018). It is important for HSU to identify their needs analysis on the main framework of TNA in order to meet the organisational needs, task or job needs through the particular needs of the individual analysis.

The model shows that the training programmes should start on the foundation of the TNA that should cover organisation, task and the individual's aspects of the organisation. The organisational analysis consists of considering how employees training can help to achieve organisational goals and where in the organisation training is needed. Also, a conscious and structured approach to training needs would in all likelihood help to increase the selection of training solutions that most closely relate to the organisational needs. It is likely that this will affect training usefulness.

Finally, TNA provides an opportunity for managers and trainers to get into organisation and talk to employees by providing a channel for all respondents to deliberate programmes to be mounted hence the parties identify and own the programmes (Muma et al., 2014). This model confirms that TNA of administrative staff should be identified based on the three-way framework of organisational, task and person or individual analysis.

2.7.2 Michalak's and Yager's model

Muma et al. (2014) argue that the eleven (11) steps expose method for conducting training needs assement, since it provides solutions to the who, what, and why training. However, Erasmus et al. (2015) state that the steps of Michalak's and Yager's model is a primarily used as a benefit for analysing training needs as a guide in stating questions for questionnaires of investigation results.

The model is primarily used for analysing training needs at the micro-level which covers the task and individual analysis or small groups. The focus of this model can assist to include additional information in relation to TNA level in the HSU. Michalak's and Yager's model is created on the model of Mager and Pipe (1984) and is used mainly as a rule in

articulating questionnaires or to conduct analyses of research results. This model distinguishes between the canno`t do and does not do pathways, dealing with a training need that has been identified and training that should be provided (Erasmus et al., 2015). This model consists of eleven steps namely to:

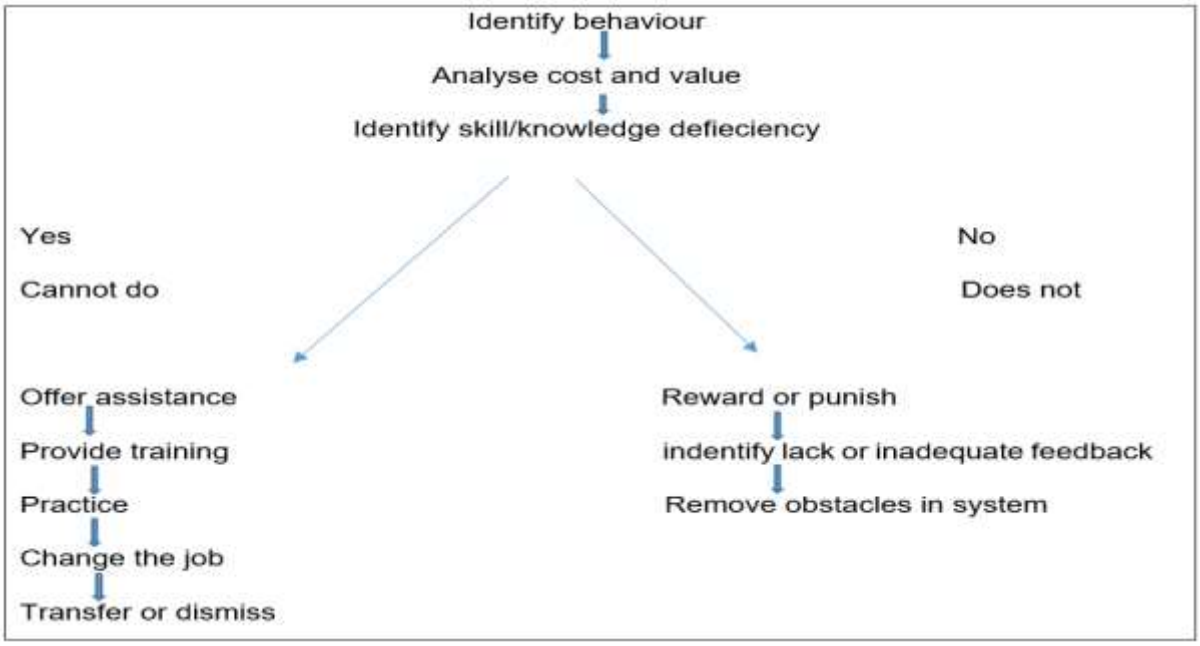

Figure 2.2 Michalak's and Yager's model

Source: Adapted from Erasmus et al (2015:140) and Blanchard and Thacker (2003:118)

According to the first step when a problem is experienced, it is important to identify the problem not the symtoms. The second step suggest a comparison should be made regarding the cost of training and the profit it brings to the initiative. On the third step, it should be indicated whether there is lack of skills and knowledge amongst the employees, and if so, there cannot do path should be followed. In step four employees are provided with the direct assistance to complete their task. Additionally, in step five training should be applied to solve the problem; however, it should be highlighted that training should not be considered as the first and the best solution in all circumstances.

In step six, once training is finished, the acquired skills should be constantly applied. On the seventh step, changing the employee's occupation should be measured after all possibilities of solving a performance problem have been exhausted. Moreover, in step eight the employee should be transferred to a unit where his or her capability can add valued, however, the last option is to dismiss the employee. Step nine emphasise that the reward or punish system used in the organisation is vital to be considered since this

system may be the foundation of the problem. Based on the reward or punish system, employees should be provided with feedback concerning the service he or she rendered.

Lastly, depending on the circumstances, there might be difficulties in the system that stop employees from doing the work correctly, these include employees being allocated too much work or wherein the organisation does not support the employees skills and knowledge. In addition, Blanchard and Thacker (2003) and (2007) explain that Michalak and Yager's gaps can be identified through four things: (KSA) knowledge, skill, and attitude; incentive or punishment, feedback or problems in the organisation.

From the above discussion it becomes clear that Michalak's and Yager's model is mainly used as an encouragement for analysing training needs at the micro-level. Micro-level training needs has two aspects, the operative or task level which emphasises the content of a persons' job, and the people or individual performance or small groups. This model is exactly focusing on the knowledge and skills of employees that needs to do the work. Therefore, the model provides solutions to the who, what, and why training (Muma et al., 2014). Once the job content of administrative employees is determined, the average performance essential is used to define the training gap. Hence, the performance analysis verify that there is performance shortage and defining whether the organisation should correct deficiencies through training or other means (Hartoyo et al., 2017).

2.7.3 Proposed training need analysis practice model

According to Mazhisham et al. (2018) TNA is critically significant for the execution of training and development in an organisation at all levels. Therefore, it is the main tools and powerful process of training that helps employees, groups and the whole organisation to be successful. The model consists of four aspects of key actors, level of interest, methods and the outcomes of the analysis.

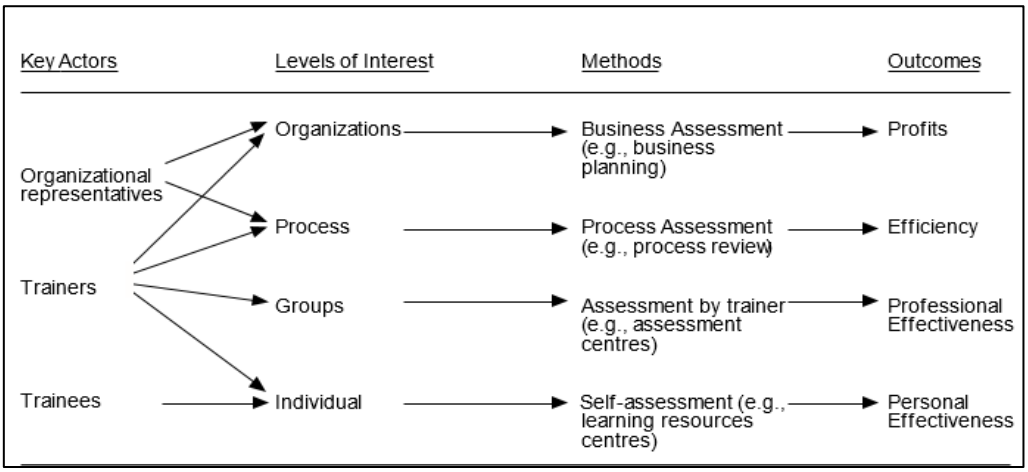

Figure 2.3 Proposed training need analysis practice model

Source: Adapted from Chiu, Thompson, Mak and Lo (1999:80)

Chiu et al. (1999) added methods of analysis and expected outcomes, as a means of elevating understanding of the analytical process. The model is therefore useful in guiding further research into TNA and in helping to classify future studies. Moreover, Ferreira and Abad (2013) cite Chiu et al. (1999) who said that the most studied level of analysis was macro (organisational), followed by meso (groups, tasks and process), with the individual being the least studied. Therefore, Chiu et al. (1999) claim that performance problems due to employee shortage of knowledge and skills can only be solved by training. The performance problems of administrative staff due to lack of knowledge and skills can be solved by providing the identified suitable training at the organisational, task and employee level.

The supply-led approach is mainly trainer-driven and authority oriented coming from the vested interest in trainers. Usually, trainers are accountable for identifying training needs and the scope of assessment that cover any level of the organisation (Chiu et al., 1999). The key indicators might be the author of the TNA study. Therefore, a TNA study could be initiated by the organisational representative such as Executive Directors, trainers such as training consultants or from the trainees themselves.

Top managers are considered to be committed to investment in training because they see its meaning to the success of the business (Chiu et al. 1999). Therefore, the demand-led training suggests needs analysis methods such as management by objectives (MBO) as a means of linking individual objectives with occupational purpose and of identifying the areas where the individual may need training in order to achieve the objectives (Chiu

et al., 1999). It means management should be dedicated in investing training of administrative staff as it contributes to the success business, in linking the individual objectives with the task analysis by identifying areas where the individual may need training to achieve the organisational goals.

The models of O-T-P and proposed TNA model are almost similar. However, proposed TNA model involve the team or group of employees like Michalak's and Yager's model at the micro level. Furthermore, the proposed model cover the team or group of employees at the macro level, which is organisational level. Therefore, the proposed TNA model is the suitable theoretical framework for this study because the TNA model cover four aspects namely; key actors, level of interest, methods and outcomes. This model is relevant to the TNA since it enabled the researcher to examine every aspects. Therefore, the model tries to distinguish various level of interests in the TNA studies. The levels include the macro (e.g organisational performance), micro (individual performance) or at a level somewhere in between (specific incumbent group). The TNA of administrative staff at HSU should be identified through this proposed TNA model.

The researcher found that the is limited literature on the proposed TNA model. Therefore, there is a gap since 1999 to date. The researcher will add the skills development committee or training and development committee on the model under key actors as is the key to prioritise the TNA of the entire organisation.

2.7.4 The advantages and disadvatages of the models

The subsequent section clarify certain advantages and disavantages that could apply when utilising the models below. The advantages and disadvantages of the three level O-T-P model, Michalak's and Yager's model and the proposed TNA model are discussed below.

Table 2.1 Three level O-T-P model

Advantages	Disadvantages
Identify TNA for the right employees at organisational, task and individual level	Identify TNA for the wrong employees at organisational, task and individual level
Select the suitable training	Unsuitable training
Recommend training	No recommendation of training

Considering the above, the achievement and failure of training is dependent on the identification of right employees at the organistional, task and individual level for a training participation. Hence, TNA ensures the correct employee participation in training programmes (Nazli et al., 2014). However, if an employee is given a training that he or she does not require, the training may not be useful to that employee or the organisation (Ibegbulam & Eze, 2016). Therefore, the required or suitable training is necessary. Needs often vary, and each individual should participate in training that will equip himself or herself with knowledge or skills in the relevant areas in order to enrich job performance (Ibegbulam & Eze, 2016). Employees who attend specific training for example, on-the-job training are likely to stay than those who did not (Wamwayi, Iravo, Elegwa & Gichuhi, 2016). However, inappropriate trainings to employees will lead to waste of time and financial resources (Wamwayi et al., 2016).

Table 2.2 Michalak's and Yager's model

Advantages	**Disadvantages**
Identify the real problem	Non-existence problem
Focus on KSA (knowledge, skill and attitude)	Additional work changes in work and transfers or termination
Provide appropriate feedback	Inadequate feedback
Remove obstacles on the system	

Erasmus et al. (2015)

With regard to the above mentioned, the model clearly differentiates between the can't do and does not do paths, dealing with a training need identified, and training that must be provided (Erasmus et al., 2015). It seen that TNA is essential because it aids to determine whether training can correct the performance problem. In adition, employees have the KSA to do the job, but there are obstacles that prevent operative performance. However, feedback can be overcome by providing suitable response, and this obstacles in the system need to be known and removed (Blanchard & Thacker, 2007; Erasmus et al., 2015; Hartoyo et al., 2017).

The model provides direction and focus in the process, prevent the predictor from becoming sidetracked, provide a framework within which to work and for reporting results to management (Erasmus et al., 2015). It is important to follow the process in order to report the results to management. TNA and training informs the process of TNA, the types

of training needs and the models for conducting TNA as well as the advantages and the disadvantages of OTP cycle, instructional design and Michalak's and Yager's model.

Table 2.3 Proposed TNA model

Advantages	Disadvantages
Identify TNA for employees needs at the organisational, task, individual level and group level.	Identify TNA for wrong employees needs at the organisational, task, individual and group level
Select suitable training	Irrelevant training
Implementation of training	No implementation

Table 2.3 presents the advantages and the disadvantages.TNA helps to identify the performance gaps and consider if the problem can be answered by training (Balisi, 2014). However, if one gets the training needs identifcation erroneous, and he or she will target the wrong individuals or groups and wrong skills gaps (Ghosh, 2015). Suitable training design involves the training needs at organisational, operational, individual and group level (Nazli et al., 2014). Therefore, training delivery takes place either on-the-job or off-the-job (Balisi, 2014). The next section discusses the previous research results on the TNA of administrative staff at universities.

2.8 PREVIOUS RESEARCH FINDINGS ON THE TRAINING NEEDS ANALYSIS OF ADMINISTRATIVE STAFF AT UNIVERSITIES

This section provide literature on TNA process at the universities. The section provides a background on the needs of administrative staff such as language, communication and technology skills that are important to carry out duties. These needs would assist to identify aspects to include when doing TNA at HSU.

2.8.1 Language and intercultural courses, participation in mobilty programmes and staff week

Brandenburg (2016) states that internationalisation undertakings for the administrative staff should be closely integrated into a differentiated and systematic outline of staff improvement. Therefore, universities should base their programmes on information on the tendencies, prior knowledge, and experiences of their administrative staff. Activities such as mobility programmes should unambiguously target the administrative staff as a specific group (Brandenburg, 2016).

2.8.2 Communication skills

Destiny (2016) states that the need for sufficient training of senior administrators to meet the current needs cannot be over-emphasised. Hence, there is a need for assessment of communication skills as a training of senior administrators in tertiary institutions (Destiny, 2016). Communication skills links together their historical, future performance and guide verdicts throughtout the improvement effort. With the quick technological changes in the society especially universities, there is a need to assess the communication skills as required for a training need of senior administrators (Destiny, 2016).

Jusoh, Atek, Omar and Abdullah (2018) found that administrative officers experienced average level of communication anxiety. However, work obligations at office by the officers is one of the factors that obstructs their time in learning (Jusoh et al., 2018). It is important for the administrative staff to be trained throughtout so that they can meet their required performance.

2.8.3 Technological skills

Rikkua and Chakrabartyb (2013) indicate that effective TNA is particularly vital in today's changing workplace as new technologies and flexible working practices are becoming widespread, leading to corresponding changes in the skills and abilities needed. Administrative staff are likely to fail in achieving targets due to lack of progressive technology, as such, timely feedback coupled with coverage of relevant training to minimise negative training results (Farooq & Khan 2011). Zainuddin and Isa (2014) found that 35.6 % of administrative staffs did not have good familiarity on computer vision syndrome. Therefore, since technology is about improving work efficacy within work environment, then secretaries have to be proactive in their occupation to be abreast with the technological world as soon as any new development is introduced (Adam, 2015).

According to Bansal and Tripathi (2017), learning to function, a specific technology requires acquisition of extra skills or knowledge which may vary in the numerous staff groups likely to make differing use of the technology in question. TNA to specify the training needs of administrative staff regarding the use of new technology is required. The following sections discuss the demographic variables and the perception of the effectiveness of TNA that could be employed in effecting this study.

2.9 DEMOGRAPHICAL VARIABLES AND THE PERCEPTION OF THE EFFECTIVENESS OF TRAINING NEEDS ANALYSIS

Factors that favourably dispose one to TNA of administrative staff may be summarised into biographical variables such as: age, gender, job title, educational level, job level and tenure.

2.9.1 Age

There seems to be very little, if any, literature available on the perception of TNA of administrative staff in terms of age. However, administrative staff aged between 34 years and younger uttered more confidence and experience in the dominion of multimedia usage and manipulation, web and other presentation software using mobile devices, using the internet, using word processing and using email (Erasmus & Joubert, 2017). Noteworthy, staff aged between 35–41 presented similar confidence in all the ICT skills domains (Erasmus, Naidoo & Joubert 2017). Younger employees are more exposed to digitalisation at the earlier career stage than older employees (Nwokoye & Uwajumogu, 2017).

2.9.2 Gender

According to Al Shobaki, Abu-Naser, El Talla and Abu Amuna (2018), there is no substantial dissimilarity between the male and female administrative positions at the institutions on TNA. However, giving more opportunities for both males and females to persuade them by organising workshops, seminars and conferences, both inside and outside the organisation, where the pace at which employees work is maintainable and may improve (Al Shobaki et al., 2018).

2.9.3 Job title

According to Jung and Shin (2015) in an organisational hierarchy, high ranked employees tends to embrace decision-making power, and lower rank employees tends to be excluded from the process of TNA. According to Omonijo, Oludayo, Eche, Uche and Ohunakin (2015), junior staff progress is being delayed by their supervisors based on grudge, bitterness and malice. Meanwhile, Brandenburg (2016) states that staff

improvement is especially effective for lower rank positions and high rank staff not focused mainly on internationalisation. Many administrative staff tasks in the lower ranks are frequently described as simple as monotonous, which limits these staff members' abilities to demonstrate their skill (Jung & Shin, 2015).

2.9.4 Educational level

Ahmed, Abu-Naser, El Talla and Al Shobaki (2018) found that organisations should always work on the nature of administrators' work commensurate with the qualifications and abilities of the people who are based on it. For example, by putting the right person in the right position.

According to Wamwayi, Iravo, Elegwa and Gichuhi (2016), and Altarawneh and Aseery (2016) 48% of administrative staff have a master's level of education, and this constitutes 54% of males and 46% of females. However, the administrative staff qualification is in favour of the employees who have obtained diploma degree compared to postgraduate studies (Ahmed et al., 2018). Majority of administrative staff have obtained diploma as a qualification. Hence, Khan, Masrek and Nadzar (2015) emphasise that qualified employees may not be skilled of handling current innovations.

2.9.5 Job level

The rise in administrative staff in the 1990s and the early 2000s was due to development in the higher-grade positions and newly created higher education occupations (Baltaru & Soysal, 2018). However, the increase in administrative staff reflect a rise in the quantity of professional and highly experienced administrative staff. In addition, this increase is at the expense of technical and administrative staff with lower levels of qualification (Baltaru & Soysal, 2018). Numerous cases of certain individuals enter a new organisation at a high-level rank due to their education or special proficiency (Smith-Jentsch, Campbell, Milanovich & Reynolds, 2001).

2.9.6 Tenure

Ologunowa et al. (2015) found that training becomes significant that effective training for improved efficacy, effectiveness and high productivity should develop employees who

have not had sufficient experience during the time of employment. The following section discusses the historical perspective that could be employed in effecting TNA.

2.10 HISTORICAL THEORETICAL PERSPECTIVES ON TRAINING NEEDS ANALYSIS

The study conducted by Moore and Dutton (1978) found that in 1952, Mahler and Manroe studied the determination of training needs in industry, finding that most methods for determining training needs were formal. According to Wright and Gregory (1992), it has been more than ten years since Moore and Dutton (1978) published their seminal work on TNA. Therefore, their paper traced the history of needs assessment practice from 1953, when only one in ten companies reported systematic approaches to determining training needs to 1978. Furthermore, it was found that in 25 years, needs analysis theory had progressed little further than the growth, formulation and creation of specific collection of data (Wright & Gregory, 1992).

Wright and Gregory (1992) indicate that the best training theorists still defined needs in terms of the equation: standard or desired performance – present or actual performance = training needs. Little theory development has happened addressing the issue of how to diagnose performance problems and ascertain that they are caused by lack of knowledge and some variant training represents the optimal solution set (Moore & Dutton, 1978).

Reid and Barrington (1994) argued that finding the right reason for the gap is extremely important because it would help in getting the right solution. As per McKillip (1987), TNA should focus on the main reason of gap between the current and desired state. The method of training need identification totally depends on the area of focus determined by organisation. Therefore, focusing on the right direction is most crucial for achieving the organisation's vision and mission.

The importance of analysing training needs prior to conducting training has been emphasised by many authors (Burke & Day, 1986; Goldstein, 1986; Wexley, 1984). However, McGehee and Thayer (1961) proposed that assessment of training needs involves three types of analysis: organisation, operational (task) and person analysis.

It is very imperative that HSU analyse the TNA of administrative staff on the tripartite framework of organisational analysis, task analysis and person analysis for the achievement of the organisational goals. The following section discusses the success factors of the above mentioned models.

2.11 THE SUCCESS FACTORS OF TRAINING NEEDS ANALYSIS

Table 2.4 The success factors of training needs analysis

Three-level OTP model	**Michalak's and Yager's model**	**Proposed TNA model**
The process of needs analysis identifies more than one training need, the training manager, working with management, prioritises the training based on the urgency of the need, the extent of the need and resources available (Asrar, Mirza & Riaz, 2012). It is important to prioritise the training needs that are more than one and the training manager work with management based on the timeline and how many employees need to be trained.	The model clearly differentiates between the 'can't do' and does not do path dealing training need that has been identified, and training that must be provided (Erasmus et al., 2015). Therefore, gaps can be diagnosed through four things: KSA, reward or punishment, feedback or obstacles in the system. The identified TNA of administrative staff should be provided.	Top managers are considered to be committed to investment in training because they see its meaning to the success of the business (Chiu et al. 1999). It means management should be dedicated in investing training for the employees as it contributes to the success of the business.
Akther, Tariq and Islam (2018) found that TNA increase the training effectiveness. Therefore, training effectiveness is the study of individual, group or organisational level that influence learning in training and transfer after training. HSU should increase their TNA by identifying the administrative staff's needs at the individual, group and organisational level.	The model is too simple to be successfully applied in more multi-layered problems (Erasmus et al., 2015). It is important to apply this model in a complicated difficulty of administrative staff.	Demand-led training suggests needs analysis methods such as management by objectives (MBO) as a means of linking individual objectives with occupational purpose and of identifying the areas where the individual may need training in order to achieve the objectives (Chiu et al., 1999).
TNA Success factor	**Researchers that identified the success factor**	**Questions included in the questionnaire**

Three-level OTP model	Michalak's and Yager's model	Proposed TNA model
TNA should be linked to organisational strategy	Hartoyo et al. (2017:144) Muma et al. (2014:237) Manna et al. (2016:110)	Is TNA linked to the organisation's core business and strategic objectives?
Top management encourages staff participation when conducting training needs.	Muma et al. (2014:237)	Does top management encourage staff participation when conducting training needs?
There is an updated skills inventory kept by the HR department.	Manna et al. (2016:110)	There is an updated skills inventory kept by the HR department.
Staff are encouraged and motivated during and after training sessions.	Muma et al. (2014:237)	Staff are encouraged and motivated during and after training sessions.
Organisational, task and person or individual analysis are integrated.	Hartoyo et al. (2017:145)	Organisational, task and person or individual analysis are integrated in identifying the TNA.

The following section discusses the success factors and best practice for training needs analysis.

2.12 SUCCESS FACTORS AND BEST PRACTICE FOR TRAINING NEEDS ANALYSIS

The study conducted by Jamil and Som (2007) indicate that previous researchers such as Agnaia (1996), Amos-Wilson (1996), Elbardri (2001), Erffmeyer, Russ and Hair (1991), Mahler and Moonroe (1952) cited in Moore and Dutton (1978) revealed that most organisations were frequently conducting training informally and unsystematically depending heavily on top management judgements to make training decisions such as types of training to invest in and which employees to receive training. Managers are engaging in multiple, simultaneous change activities that are designed to quickly improve organisational performance. It is very important to rely on top management's decisions, on the type of training to invest on employees as they ensure organisational performance improvement.

Balisi (2014) indicates that there is lack of capacity in human resources to conduct TNA process on organisational and task analysis. Only needs assessment is conducted at the individual level. A study conducted by Tao, Yeh and Sun (2006) display that today, researchers and practitioners still abide by the three-level framework although terms may

have altered over time – operations analysis is now task or work analysis and man analysis is individual or person analysis. (Holton et al., 2000). Generally, the process of needs analysis, show that public service training is not strategic (Balisi, 2014). The most effective needs assessment should take into consideration all three levels of analysis starting from the organisation level.

Ferdous and Razzak (2012) found that TNA is a pre-requisite for an effective training that helps organisational growth and development. Akther et al. (2018) indicate that TNA is important to improve employee's skills and capability to meet future challenges. However, because most organisations lack the resources to address all their training needs, the needs assessment stage of training has become increasingly important. Therefore, the assessment of training needs should provide a focal point and direction to the organisation in investing on its employees (Akther et al., 2018). The assessment of training needs of administrative staff should provide a crucial direction to HSU since TNA is important for employees to enhance their skills to meet future challenges.

In order to ensure the success of TNA, areas such as performance gap assessment, root cause assessment, need assessment and lastly the recommendations of whether training is the best option or not must be addressed (Akther et al., 2018). Besides, the purpose of training need assessment is to add value to an organisation. The effectiveness of TNA of administrative staff such as performance gap should be addressed by providing training to the employees.

In Pakistan, study found that the process of needs analysis identifies more than one training need, the training manager, working with management, prioritising the training based on the urgency of the need (timelines), the extent of the need (how many employees need to be trained) and the resources available (Masood et al., 2012). Therefore, training assessment is concerned with the achievement of a desired level of ability and the success of the required knowledge and skills (Akther et al., 2018).

It is important for HSU to identify more than one training need of administrative staff, in order for the training to be prioritised based on the urgency of when training is needed, how many employees and whether the resources are available.

According to Akther et al. (2018), TNA maximises the training success. Therefore, training effectiveness is the study of individual, group, or organisational level factors that influence learning in training and transfer after training. The training efficiency of administrative staff will impact learning in training as well as to transfer skills after training. To design training programme which satisfy both the organisation and its employees, training needs should be identified by executing three levels of analysis which is organisational, operational and individual analysis (Jamil & Som, 2007). The training needs of administrative staff at HSU should be identified by performing the organisation, operational and individual analysis.

TNA should be approached like a research that has to be conducted in a systematic and continuous manner by employing certain methods. McGehee and Thayer (1961) indicate that TNA framework is still heavily referred to in training literature and serves as the foundation for most subsequent TNA models (Jamil & Som, 2007). According to Akther et al. (2018) TNA models in practice are popular to identify performance gap of the organisation such as the O-T-P that is considered as foundation framework for the need assessment of an organisation.

Jamil and Som (2007) state that organisational analysis involves the examination of an organisation’s mission and strategies to identify training needs, whereas operational analysis determines whether the skills, knowledge and attitudes (SKAs) required of each job in an organisation contributes to the achievement of the preset objectives. Furthermore, the TNA process continue to the third level whereby the performance of each employee is assessed to determine whether he / she performs according to the standards and if discrepancies occur, to decide whether training can be used to close the gap (Jamil & Som, 2007). It is important to identify the TNA on HSU level to determine whether the skills of administrative staff's job contribute to the organisational goals as well as to evaluate whether the employees perform according to the required standard.

Jamil and Som (2007) indicate that TNA should be conducted continuously by using the tripartite framework as is the basis successful method to conduct TNA. However, methods refer to the instruments that analysts use to collect data for TNA purposes. Therefore, techniques are the procedures to be carried out in order to identify training needs which involve the use of data collection methods (Jamil & Som, 2007). It is important for HSU to use the methods and techniques in order to identify the training needs of administrative staff to collect data.

2.13 CHAPTER SUMMARY

This chapter provided the context of SHRD, which justifies the identification, purpose and significance of TNA. A definition of TNA was provided. The process of TNA includes organisation, individual and task analysis.

The chapter went on to discuss the types of training needs, TNA models. In addition, the chapter examined the importance of TNA in line with three level O-T-P model, Michalak's and Yager's model and the proposed TNA model which served as the theoretical framework of this study. The previous research findings on the TNA of administrative staff at universities, the TNA on the demographical variables of administrative staff, historical theoretical perspectives on TNA, the success factors of TNA and the Success factors and best practice for TNA. In summary, without evaluation, there is no tool for establishing and conducting TNA (Erasmus, et al., 2015). The next chapter will focus on talent management and the management thereof in academic institutions.

CHAPTER 3

TALENT MANAGEMENT WITHIN THE CONTEXT OF A HIGHER EDUCATION INSTITUTION

3.1 INTRODUCTION

This chapter examines the conceptualisation and definition of talent and TM. Different approaches to the TM, as well as its purpose and significance are analysed. In addition, the TM processes, specifically in the context of administrative staff in the HE sector, as well as the effects of demographic variables on TM will be explained. Lastly, the chapter offers a potential conceptual framework on the interaction and link between effective TNA and TM. A recent definition by Cappelli and Keller (2014) describes TM, as "a practitioner-generated term, covering a range of long-standing practices that aim at getting the right person in the right job at the right time. These practices include workforce planning, succession planning, employee development and career management" (Cappelli & Keller, 2014:306).

TM is a significant factor in the development of an organisation's human capacity and a strategic priority for businesses and universities to prepare the organisation's human capacity for the future. Talented employees are the main assets and critical factors in the attainment of knowledge and experience organisations focusing on human development (Yasin, 2014).

3.2 CONCEPTUALISATION OF TALENT AND TALENT MANAGEMENT

Although it is important, the concept of TM is still unclear (Collings & Mellahi, 2009). Vaiman and Collings (2013) indicate that for many organisations, the context of TM remains complex, challenging and continually developing. Therefore, it is important to conceptualise talent and TM clearly, in order to provide sufficient TM theoretical background to anchor this study. A few important debates have emerged from the recent attempts to draw conceptual limitations about the term Talent and TM. However, the ideas of an inclusive versus an exclusive approach of TM is still considerably and seriously argued by authors on the conceptual framework and the standards about the practices of TM (Al Ariss, Cascio & Paauwe 2014; Cappelli, 2008a; Lewis & Heckman, 2006; Yener,

Gurbuz & Pinar, 2017). Cappelli and Keller (2014) indicate that the practical implication of these two approaches of TM concerns the investment of rare resources, where whether is a development for everyone or the organisation should invest in a different way in certain individuals or jobs.

3.2.1 Conceptualising 'talent'

According to Nijs, Gallardo-Gallardo, Dries and Sels (2014:182), talent "refers to systematic developed innate abilities of individuals that are deployed in activities they like, find important, and in which they want to invest energy. It enables individuals to perform excellently in one or more domains of human functioning, operationalised as performing better than other individuals of the same age or experience, or as performing consistently at their personal best". Furthermore, talent is seen as the addition of an individual's skills, which includes the inherent gifts, abilities, awareness, personality and drive. It also includes an individual's capability to learn and grow (Nafei, 2015).

Gallardo-Gallardo, Dries and Gonzalez (2013) and Tetik (2016) describe talent as either an *object* or a *subject*. According to Nijs et al. (2014), viewing talent as an *object* denotes that talent is an ability, capacity, proficiency, assurance, competency, influence, knowledge, potential and skills that are connected to the features of people. Alsakarneh and Hong (2015) share the same opinion that the talented employees are individuals with various characteristics that add value to the development of an organisation. At the same time, Gallardo et al. (2013) indicate that viewing talent as a *subject* describes talent as inclusive approach to TM, inclusive of all the people within the organisation and the exclusive approach of the subgroup of the organisation's population. The approaches to talent as a subject are described as follows:

3.2.1.1 Inclusive subject approach: talent as all people

Yost and Chang (2009) argue that organisations should try to help all of their employees to fulfil their fullest potential since focusing on investments (in terms of time, money and energy) on only a few people and within a limited set of roles, is an unsafe strategy when considering at the expected labour market shortages. Therefore, if talent refers to all the employees, managing talent simply involves proper workforce management and development of all the organisation's employees, which is not particularly helpful in

specifying how TM is different from SHRM (Garrow & Hirsh, 2008). According to this subject approach, TM is a collection of typical HR process such as recruitment, selection, development, training, performance appraisal and retention (Iles, Chuai & Preece, 2010; Silzer & Dowell, 2010).

3.2.1.2 Exclusive subject approach: talent as few people

The exclusive subject approach is based on the idea of segmentation of the workforce, and distinguishes talent as an elite subsection of the organisation's population, for example "those individuals who can make a difference to organisational performance, either through their immediate contribution or in the longer-term by demonstrating the highest levels of potential" (Tansley, Harris, Stewart & Turner, 2007:8).

The topic of TM has started to gain a lot of attention from corporate leaders and academics since the late 1990s when McKinsey consultants coined the phrase "war of talent" in referring to their increasing importance role of talented leaders and highly performing employees played in the success of their organisation globally (Boudreau & Ramstad, 2007; Scullion, Collings & Caligiuri, 2010; McDonnell, 2011). After the initial discussion on the war for talent (Chambers, Foulon, Handfield-Jones, Hankin & Michaels, 1998) many researchers and practitioners focused on the phenomenon of TM (Axelrod, Handfield-Jones & Michaels, 2002; Collings & Mellahi, 2009). Because of the active competitive environment of the modern business world, TM is seen as a paradigm shift from old-style HR related sources of competitive advantage, towards the management of talent. Besides that, within the last years the new shift paradigm increased the significance of TM (Collings & Mellahi, 2009).

The definitions of talent by Gallardo-Gallardo et al. (2013) and Tetik (2016) are suitable and appropriate to guide this study. Accordingly, Gallardo et al. (2013) and Tetik (2016) summarised and discovered the composite form of all talent definitions in the theoretical literature and they encompass the conceptualisation of talent through two approaches namely, object approach and subject approach. For example, the authors identify all employees' characteristics within the organisation, which includes the inherent gifts, abilities, awareness, personality and drive.

The term “talent” is defined in different ways. Dries (2013) argues that it will be impossible to be persuaded of the importance of TM if the investigators fail to provide a uniform definition of the word talent. In contrast, Boudreau (2013) argues that the acceptance of a single definition of talent will not aid in the TM, nor will it enrich the development of workers. Because talent definition is a shared necessary to future integrative research, at present, the implied meaning of talent differs, but is often sufficient for organisations to accomplish very valuable TM contributions (Boudreau, 2013).

Vladescu (2012) believes that some people are considered talented as they retain excellent and potential competences through which they can influence the efficiency and effectiveness of the organisation, in which they work. According to Tetik (2016) talent comprises of those people who can make changes to organisational performance, either through their instant contribution or in the longer-term by demonstrating the highest levels of potential. By combining the different viewpoints of talent, which refers to traits such as ability, capacity, competency, knowledge, and skills of the people, it includes identifying high potential and high productivity that facilitate the success of the organisational objectives (Tetik, 2016). Despite that, Morton (2004) and Alruwaili (2018) explained talent as those employees who have an endogenous capacity (meaning where talent originates internally) that allows them to make significant and desired changes in the current and future performance of the organisation.

In addition, Berliandaldo and Hidayat (2017) found that the definition of talent implies that talent is something that an employee construct and nurture through an organisation’s training and development programme, as a long-term process, to advance their performance so that it can drive organisational success. However, different opinions on talent seem to come from a focus on either the current, or the future abilities of employees for exemplary performance (Erasmus et al., 2017). Therefore, talented employees are potential applicants for future senior management and expatriate roles, expected to drive competitive performance and development (King, 2015).

TM focusses on the current and future abilities of employees for performance, therefore the talent of employees need to be managed (Alruwaili, 2018; Erasmus et al., 2017). The next section presents how the literature conceptualises and implements TM.

3.2.2 Conceptualising talent management

The concept of TM is lacking in terms of definition and theoretical development, and there is a comparative lack of practical evidence on the subject of TM (Cappelli 2008a, 2008b; Cappelli & Keller, 2014; Lewis & Heckman, 2006; Nafei, 2015). In addition, there is still no consent over its definition, theoretical background and scope (Gallardo-Gallardo & Thunnissen, 2016; Lewis & Heckman, 2006; Schiemann, 2014). In contrast, Sparrow and Makram (2015) claim that TM has reached maturity, whereas Gallardo-Gallardo, Nijs, Dries, and Gallo (2015) declare that TM is expanding to an advanced field. These authors argue that the understanding of TM is going to change radically and quickly in the future as it shifts from a "growing" to a "mature" field of study (Gallardo-Gallardo & Thunnissen, 2016).

Vaiman and Collings (2013) are of the view that TM theory improvement is notably advancing. Turner and Kalman (2015) argue that TM presently is already quite different from the TM known in the twentieth century. This is due to a number of forces such as globalisation, demographic changes, market and sector of operating or alterations in the structure of organisations (Fajcikova, Urbancova & Kucirkova, 2017). However, Dries (2013) states that no accessible theory has enough scope to capture all its different elements and no organisational approach to TM is considered superior to others. Collings and Mellahi (2009), and Dries and Pepermans (2008), agree that despite the need for unceasing development of the theory and practice of TM, there is still a lack of experiential studies on TM.

Indeed, Ashton and Morton (2005) noted that there is no sole reliable definition on TM. However, Lewis and Heckman (2006) provide a critique of the literature on TM and state that the lack of reliable definitions appears to be the reason why there are so many ways of construing TM in practice, which may lead to possible confusion within the organisation. In order to clear up the confusion on TM definition, Hafez, AbouelNeel and Elsaid (2017), Lewis and Heckman (2006), and Tarique and Schuler (2010), identified three key streams of thought around the concept of TM as follows:

- Employees who merely substitute the label TM for HRM: This custom often limits their focus to specific HR practices such as recruitment, leadership development, succession planning etc. Therefore, this amounts to the rebranding of HRM.

- Development of talent pools focusing on projecting employee/staffing needs and managing the progression of employees through positions: This custom builds on succession planning literature, while adopting a comparatively narrow focus to provide a degree of differentiation as to what TM is compared to HRM.
- Management of talented employees: This approach categorises employees by performance levels e.g. “A”, “B”, “C” levels to signify top, competent, and bottom performers, respectively (Lewis & Heckman, 2006). However, literature contend that all roles within the organisation should be filled with “A performers”, referred to as “top grading” (Smart, 1999) and emphasise the management of “C players”, or consistently poor performers, out of the organisation (Michaels, Handfield-Jones & Axelrod, 2001). While the third approach is highly persuasive, researchers recognise limitations to this approach and argue that it is neither needed nor appropriate to fill all positions within the organisation with top performers (Collings & Mellahi, 2009). Above all talent of administrative staff is important to the university’s success and it will help the HR goal of managing employees to raise performance.

According to Ariss et al. (2014) and Collings and Mellahi (2009), TM is conceptualised as the actions and processes that are involved in the streams mentioned above by Hafez et al. (2017), Lewis and Heckman 2006 and Tarique and Schuler (2010). Al Ariss et al. (2014), and Collings and Mellahi (2009) added a continuous commitment to the organisation and well-being of societies, while taking local and national contexts into accounts. Therefore, in the context of this study, HSU should consider a continuous obligation in managing the talent and identifying the positions of all administrative staff by developing their talent which will have a tremendous impact on the university’s competitive advantage. In this study, talent is seen as all employees in the organisation. In addition, there are different talents, and each person is at different level such as low, potential or high talent.

Collings and Mellahi (2009) envision that TM programmes need to move beyond the performance-based discourse traditionally found in the organisations if they are to make positive impacts on society as a whole. Also to address the linkages among different organisational level and individual level. In addition, Chemaiyo (2016) notes that TM problems have to be addressed at the highest level of the organisation, management of

strategic conclusions, and practices need to emphasise on the results, which should reveal the views and actions.

TM refers to the procedure that assists the identification, development, engagement and placement of those employees who are of specific value to an organisation (Chemaiyo, 2016). According to Erasmus et al. (2017) managing talent inside the organisation has been identified as the device capable of enabling the attraction, development, and retaining of the necessary skills and knowledge within the organisation through complete strategy, practices, and interventions.

Alternatively, Yasin (2014) indicates that TM is the additional administration, procedures and opportunities that are offered to individuals in the organisation who are deemed to be “talent”. Hafez et al. (2017) define TM as the roles, practices and activities that are normally performed by HR departments; these include training and development, recruitment, selection, career and succession management. In addition, TM refers to the implementation of integrated HR strategies to attract, develop, retain and productively utilise employees with the necessary skills and abilities to meet present and future employment needs (Barkhuizen et al., 2014; Gallardo-Gallardo & Thunnissen, 2016).

Cappelli and Keller (2014:307) describe TM as “the process through which organisations anticipate and meet the needs for talent in strategic jobs”. The authors state that two debates emerged, namely; “inclusive and exclusive”. Emphasises on employees as an integral part of an organisation’s achievement was researched by Mishra (2008) who argues that the majority of employees inside the organisation are part of a pool of ignored talent, and if appropriately engaged, will be able to contribute a great deal to the organisation.

TM aims at developing and positioning the right people to do the right job, on the right time, and give them the right setting, to be able to reveal their abilities in the best possible way for the organisation (Marjani & Safaee, 2016). HR needs to develop an integrated and active strategic method and ensure that the organisation’s culture supports talent. Considering the fact that HR also plays a role as a transformation agent, it has to incorporate TM in any organisation. Therefore, HR has to ensure a continuous development of human capital which can result in more engaged employees and a lower turnover (Erasmus et al., 2015). HR should have a plan in place to support the TM of

organisational values. Boudreau and Ramstad (2007) state that whether TM is called people, intellectual capital, HR, talent or some other term, the resource that lies within employees and how they are organised is progressively recognised as critical to strategic achievement and competitive advantage.

Moreover, the literature found that TM has been investigated mostly in Europe and slight has been done in Africa, specifically in the South African public service (Gallardo-Gallardo & Thunnissen, 2016). Moreover, TM takes place mainly in private sector organisations, multinationals, and organisations in United States of America contexts (Erasmus et al., 2017). The discussion above has demonstrated that defining TM is multifaceted. TM is being executed differently in different organisations (Dries, 2013). Hughes and Rog (2008), argue that, previously TM can be executed, top leaders need to first have mutual understanding and agree on the suitable definition of TM for the organisation. As a result, it was significant to in this research examine how TM could be implemented towards the support for employee retention of administrative staff because TM is regarded as a plan to identify, grow and retain talent in the organisation (Poocharoen & Lee, 2013; Saadat & Eskandari, 2016).

On the other hand, Cappelli and Keller (2014:307), state that TM is “the process through which organisations anticipate and meet the needs for talent in strategic jobs”. Therefore, TM represents a component of the HRD strategy which summarises the organisational policies and administration supporting the accomplishment of TM activities. According to Erasmus et al. (2017), TM is not a stand-alone programme that exist only within HR, but a concept that should be filled in the hearts and mind of line managers. Besides, it was argued by HR managers that HRM systems of employees planning and staffing, performance management, learning and development, employee relations, and organisational development should focus on using the organisation’s human talent to achieve competitive advantage (Bushney, Katz, Knoke, Ludike, Meyer, Nel, Schenk, Smith, Van Niekerk & Wolfson, 2012).

3.3 DIFFERENT APPROACHES TO TALENT MANAGEMENT

The literature found two prominent methods to TM in the world of work (Al Ariss et al., 2014; Cappelli & Keller, 2014; Dries, 2013; Gallardo-Garllardo & Thunnissen, 2016; Takács-György & Takács, 2017; Yener et al., 2017). Gallardo-Gallardo and Thunnissen

(2016) hypothesise that the exclusive approach is sometimes referred to as the differentiation approach, which assumes that TM is focusing simply on those workers who are considered as top performers and high potential. The inclusive or generic approach views all workers as talented, and they are all comprised in TM (Gallardo-Gallardo & Thunnissen, 2016). The practical insinuation of these TM approaches, and concerns on the investment of scarce resources, is the development for all employees or if the organisation should differentially invest in certain employees or jobs (Cappelli & Keller, 2014). The two approaches of TM are described below.

3.3.1 Exclusive (elitist) approach

The exclusive approach considers only a small group of high performing, talented employees important in driving the strategic objectives of the organisation (Al Ariss et al., 2014; Meyers & Van Woerkom, 2014). The exclusive approach has a longer history, certainly inspired by the practices in the military, where ranked arrangement is presumed (Cappelli & Keller, 2014). According to Dries (2013) some people are innately more talented in a different way than others within the organisation and talent on transferable viewpoints assume that talented employees will reveal their talent irrespective of the working environment they are in. Yener et al. (2017) indicate that talent refers exclusively to a group of employees who are highly significant and unique; while TM is a systematic effort to ensure the continuous development of talented employees in crucial positions and to inspire personal development.

According to Al Ariss et al. (2014), the exclusive approach deals only with the talents of high performing employees who are alienated by their added value to the organisation. Therefore, employees can be regarded talent if they have high level of main qualifications for the organisations and are able to give substantially to its development (Moczydlowska, 2012). The exclusive approach to TM is regarded as the “differential management of employees,” “competent and committed knowledge employees for key positions”, “high potentials in key positions”, however, the inclusive approach to TM is certainly not often used (Gallardo-Garllardo & Thunnissen, 2016:45).

According to Al Ariss et al. (2014) the exclusive approach is restricted to high-potential employees. Specifically, the exclusive approach to TM is said to benefit from what is called "the Mathew effect". For example, the result whereby the sharing of more

resources to the better performers in the organisation leads to higher return on investment, since more resources are allocated where more returns can be anticipated (Bothner, Podolny & Smith, 2011). The exclusive approach is opposed to the view that all employees are regarded as talented (Moczydlowska, 2012).

In addition, employees can be considered as talent if they have a high level of the key qualifications for the organisation and are capable to add substantively to its development (Yener et al., 2017). Only the well-qualified, high performing employees are regarded as adding value to the organisation. The exclusive approach is presumed to create higher return on investment in terms of profit and productivity, brought about by rises in the achievement motivation of a star employee (Dries, 2013).

According to Al Ariss et al. (2014), the elitist approach to TM influences the individual level of TM. It excludes individuals who are in lower ranks in organisations, such as technical and operational employees who did not have the chance to accumulate social, cultural, human and numerous other forms of capital. In addition, they will have little chance to progress within their organisations, and their organisations might miss the opportunity to advance employees who may have played key roles in areas like innovation, technical expertise and management (Al Ariss et al., 2014).

3.3.2 Inclusive (egalitarian) approach

Literature indicates that the inclusive approach of TM is related to the management of the talent among all employees (Cappelli & Keller 2014; Dries, 2013; Yener et al., 2017). According to the inclusive approach, Meyers and Van Woerkom (2014), Mishra (2008) and Yener et al. (2017) promote the viewpoint that all employees in the organisation have the potential to be talented. Therefore, managing all the available talent will lead to the development and growth of the organisation (Takács-György & Takács, 2017). The reflection is that each individual is gifted uniquely. In addition, the duty of HR employees is to identify these talents and ensure that the employees are all developed to use their potential talent to benefit the organisation. Dries (2013) states that TM leads to a more pleasurable working environment, characterised by openness, trust, and overall employee comfort.

Some organisation prefer a more inclusive approach of TM and try to address the needs of employees at all levels of the organisation (Stahl, Björkman, Farndale, Morris, Paauwe, Stiles & Wright 2012). According to Gallardo-Garllardo and Thunnissen (2016) the inclusive approach to TM is not frequently implemented. In addition, the inclusive approach developed more recently, perhaps in reaction to egalitarian concepts during the 1960s and 1970s, as well as workplace regulations demanding equal treatment of workers in areas such as retirement policies and health benefits (Cappelli & Keller, 2014).

Moreover, Meyers and Van Woerkom (2014) argue that the inclusive approach is normally used to advance the performance of all workers and it provides an opportunity for all workers to show their potential. Therefore, regardless of the type of approach adopted, organisations could clearly communicate their TM philosophy (Meyers & Van Woerkom, 2014). Regarding the disputed use of performance assessment as a criterion to recognise and distinguish workers, it is not worthy to say some of them are talented and others not, as performed typically reflects experience with the job, and not talent. In addition, Lin (2006) argues that adopting an inclusive approach to TM might create needless high costs in terms of HR investments. Because of the assumption of the strength-based approach, crafting a win-win for both employees and organisations may be flawed. Hence, gap-based and exclusive approaches to TM are often more cost-effective and effective solutions (Collings & Mellahi, 2009). Likewise, Stahl et al. (2012) argue that in practice organisations use both the inclusive and exclusive approach, depending on the specific talent pool, such as senior executives, technical experts etc. There will usually be different career paths and development strategies for different categories of careers. While the exclusive conceptualisation appears to be most preferred by organisations, managers have a duty to attend to all those who are at stake in or have a claim on the organisation. Therefore, organisations need to choose on in what way their TM will be approached and implemented (Gallardo-Gallardo & Thunnissen, 2016).

3.4 THE PURPOSE AND SIGNIFICANCE OF TALENT MANAGEMENT

TM has drawn much more consideration from researchers due to its effect on the competitive advantage of an organisation (Ashton & Morton, 2005; Coulson-Thomas, 2012). Collings and Mellahi (2009:305) state that “the resources and capabilities that underpins firms’ competitive advantage are directly tied to the capabilities of talented individuals who make up the firm’s human capital pool”. Ashton and Morton (2005) argue

that good TM significantly improves strategy implementation and operational excellence. Despite this, organisations are facing important challenges arising from the intensification of competition (Rao, 2017). According to Esmaeili (2016) TM is key in maintaining the competitive advantage of organisations.

Dries and Pepermans (2012) trust that what constitutes “talent” needs to be agreed upon by line managers, HR managers, and top managers, all of whom might have different viewpoints on the sources of competitive advantage for the organisation. Despite that TM is an important task of the HR department and the organisation as a whole (Alruwaili, 2018). In addition, at the organisational level, TM remains mainly confined to skilled people, expected to fill the managerial positions (Al Ariss et al., 2014). Rao (2017) indicates that the purpose of TM is to ensure that an organisation has the right talent with the right skills, and at the right time.

Organisations should attract and hire individuals who have the innovative skills to create new thoughts and advance work approaches (Alruwaili, 2018). In addition, virtuous TM will attract more gifted individuals and increase retention in the organisation (Hughes & Rog, 2008). Furthermore, the HRM should work to improve these talents and maintain them in order for that talent to be deployed within the organisation (Scullion et al., 2010). Ashton and Morton (2005) considered TM as a complex concept that has been adopted by the practitioners of HRM because this adoption is a necessary weapon in the war for talent.

3.5 TALENT MANAGEMENT PROCESS

TM is the process of establishing a continuous supply of highly productive people in the right job at the right time, including the operation of plans aimed to increase workplace productivity. Additionally, this includes the improvement of processes for attracting, emerging, retentive, and utilisation of individuals with essential expertise and abilities to meet present and future strategic employment needs (Erasmus et al., 2015). Madhuri and Sundaresan (2018) note that a proper procedure of recognition, judging, educating and maintaining the effective staffs that have knowledge, wisdom and skills is done through TM processes.

Despite that, through a systematic and all-inclusive approach, TM contains numerous processes, namely planning, recruitment, placement, orientation, development, assessment, and management of all employees owned by the organisation (Berliandaldo & Hidayat, 2017; Collings & Mellahi, 2009; Berger & Berger, 2004; Schiemann, 2014). However, in order to gain competitive advantage, organisations may increase their output by employing the right people to the right positions and developing the relevant capabilities based on the planned goals of the organisation (Collings & Mellahi, 2009; Farley, 2005; Lewis & Heckman, 2006; Tarique & Schuler, 2010).

Tetik (2016) states that the talent process can be applied in three ways, namely, attracting, attaining, and finding talents. Developing talent pools are the consequences of this process. Besides, attraction is the first step of TM by HR department in the organisation (Dries, 2013). Cappelli and Keller (2014) state that TM is the process through which organisations expect and meet the requirements for talent in strategic jobs. Despite that, organisations needs to identify the type of staff and the skills they may need in the future, and these may be different to those required in the past (Rao, 2017). However, the study conducted by Alruwaili (2018) found that TM indicates that through training and management, the organisation's performance can be enhanced and employees can be encouraged to develop their talent.

3.5.1 Dimensions/steps in the process of talent management

Van Zyl, Mathafena and Ras (2017) highlighted that once the organisation agrees on what talent strategies they are going to pursue; it becomes even more critical to develop action plans for implementation purpose. According to Heinen and O'Neill (2004), continued competitive advantage comes from TM practices. The operation of TM process in an organisation include talent planning, recruitment, compensation and rewards, performance management and employee empowerment, employee engagement and organisational culture (Nafei, 2015). These TM dimensions are displayed in Figure 3.1, which is taken from the American International Paper of Social Science (Nafei, 2015:94).

Figure 3.1 Seven blocks of talent management

Source: Adapted from Nafei (2015:94)

3.5.1.1 Talent planning

Talent planning is considered to use an organisation's present capabilities and potential to meet current and future business needs. Other areas include the required skills to achieve the organisation's plan and goals. In addition, a talent audit method is a database where organisations capture data of all employees' skills, skills gaps, strengths and weakness as well as the current performance assessments on how each employee has featured in the present position. The information will differentiate talent in each department and indicate where the gaps exist as well as to guide to tie the gaps (Nafei, 2015).

TM as a planning tool for HRM appears familiar to employee planning, however, where HR will experience a real opportunity for input to the organisation is in the quality of implementation supporting the plan (Cappelli, 2008a). Additionally, talent planning should be done in parallel with organisation planning, making a rich integration of employees and strategy (Ashton & Morton, 2005).

3.5.1.2 Recruitment

The process of finding the recruitment plan is as the key business goals for the next five to ten years, determine the skills and talent required to achieve the strategic objectives and determine whether the current employees have the abilities needed, and whether to develop them (Nafei, 2015). Wikstrom and Martin (2012) advocate a recruitment strategy that summarises the overall necessities of the organisation in terms of recruitment. Despite that, technology tools are now readily available to eradicate and eliminate tedious, old and long paper-driven processes of recruitment (Robbins & Coulter, 2010).

3.5.1.3 Compensation and reward

Remuneration strategies have to be tied to general business strategy (Caplan, 2011). Despite that, the rewards and recognition system aids as an imperative factor to build and retain talent in an organisation. The performance assessment system starts with individual managers setting performance goals and objectives that are similar with the organisational plan (Nafei, 2015). Extrinsic rewards are not a sinful but every good manager should learn how to balance intrinsic and extrinsic rewards (DuBrain, 2005).

3.5.1.4 Performance management

According to Nafei (2015), performance management (PM) is a method for incorporating the management of organisational and employee performance. PM has five important aspects; they are:

- the vision, policies and goals of the organisation
- the employee to meet with his manager and discuss how personal goals can be affiliated to the organisational goal
- the organisation's value proposition should be guiding aspect in framing performance standards
- the goals should be smart (specific, measurable, attainable, realistic and time-bound)
- the performance appraisal should be directed to determine compliance with the set goals and standards attainments made (Coetsee, 2004)

PM should be aligned with the whole organisation's business strategy (Nafei, 2015). Therefore, the results of this assessment is used to build the weak areas of an employee through finding the right training needs of that particular employee (Mathias & Jackson, 2006). Besides, performance management is a vital part of the process of improvement and identification of talent. However, the communication between employee and line manager and the feedback create the leading ingredients of performance management, which lead to unceasing improvement in the organisation (Caplan, 2011).

3.5.1.5 Employee empowerment

Empowerment can only be implemented positively if the two parties, namely, the manager and the employee, are fully involved (Nafei, 2015). The empowerment method requires managers to commit to educate their team members and make them aware of their roles, and ensure that they perform these roles efficiently. However, the manager should ensure that the team members have all the resources needed to carry out the job (Gomez-Metjia, Balkin & Robert, 2004).

3.5.1.6 Employee engagement

Employee engagement is the main driver of organisational effectiveness and performance. Employees need to have a sense of belonging and share in the organisation vision and then allow an employee to discover their role in the organisation (Kennedy & Daim, 2010). Therefore, the main aspects of employee commitment include the job itself, opportunities, quality of life, processes, talent and skill utilisation. HR policies are important and satisfied employee know what is anticipated (Nafei, 2015). Besides, the level of employee engagement considerably impacts retention, absenteeism and customer satisfaction (Wagner, 2006).

3.5.1.7 Organisational culture

According to Nafei (2015), organisational culture includes the environment of the organisation and is created on the shared values, norms, beliefs and backgrounds that have been established over time in the organisation. Despite that, a positive culture helps employees to stay within the organisation. Culture aid employees feel linked to their organisation and job. Social support, leadership and good work-life balance are part of

the culture solution (Phillips & Connell, 2003). Capelli (2009) emphasised that effective organisational processes, culture and strategic orientation lead to talent more successfully. The representation in Figure 3.3 is the appropriate framework of TM process that will measure the suitable effectiveness training need and it links directly with the conceptual framework of TNA. With regard to this study, the steps in the process of TM will help the HSU to explore on TM organisational strategic plan, TM policy and organisational culture of the administrative staff to achieve their objectives.

3.5.2 Models to talent management

The models of TM provide an overview of the key concepts included in the talent lifecycle, global talent management (GTM) framework, the multiple actors model, the TM wheel and the CRF TM system, as well as a discussion of the process that can be used to put on these. Figure 3.2, Figure 3.3, Figure 3.4 and Figure 3.5 illustrate the view of functions that joins all the actions associated with the management of talent in this study.

3.5.2.1 Talent life cycle

TM is a unique function that incorporates all of the activities and responsibilities related to the management of the talent life cycle, regardless of natural features from attracting and acquiring talent, developing it and retaining it (Schiemann, 2014).

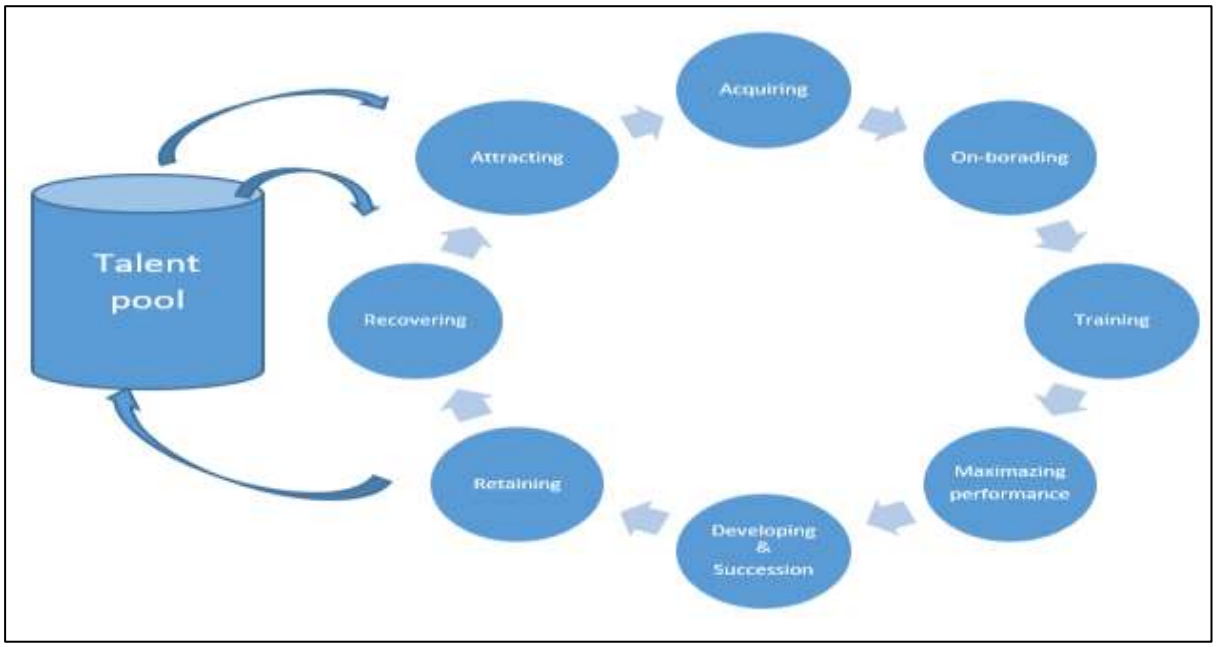

Figure 3.2 Talent life cycle

Source: Adapted Scheimann (2014:282)

According to Schiemann (2014), the talent lifecycle encompasses all of the phases of interaction between an organisation and its employees. This ranges from building a talent brand that attracts the right talent, to acquiring, on-boarding, developing, managing, retaining and even recovering talent. While TM is the way in which the talent lifecycle is managed; how well that lifecycle is achieved, will determine the level of the efficiency of those talent investment (Schiemann, 2014). Despite that, the TM cycle takes place between the stages and levels of workforce planning, talent attraction, talent development, talent retaining and talent assessment (Forman, 2005).

Hess and Jepsen (2009) acknowledged that there are age-related differences related to differences in employee needs, based on their specific career stage. Besides that, the particular needs for the career development, promotions and success of each career stage need to be identified. Therefore, the specific needs of administrative staff, based on their development stage, need to be identified, so that employees can focus on their achievement and personal growth.

3.5.2.2 Global talent management strategic framework

The GTM framework is a lens to surround the focus of more research as well as a tool for management enquiry and practice; and sheds light on a continuing implementation issue

in management practice (King, 2015). Figure 3.3 presents the GTM strategic framework as depicted by King (2015:279).

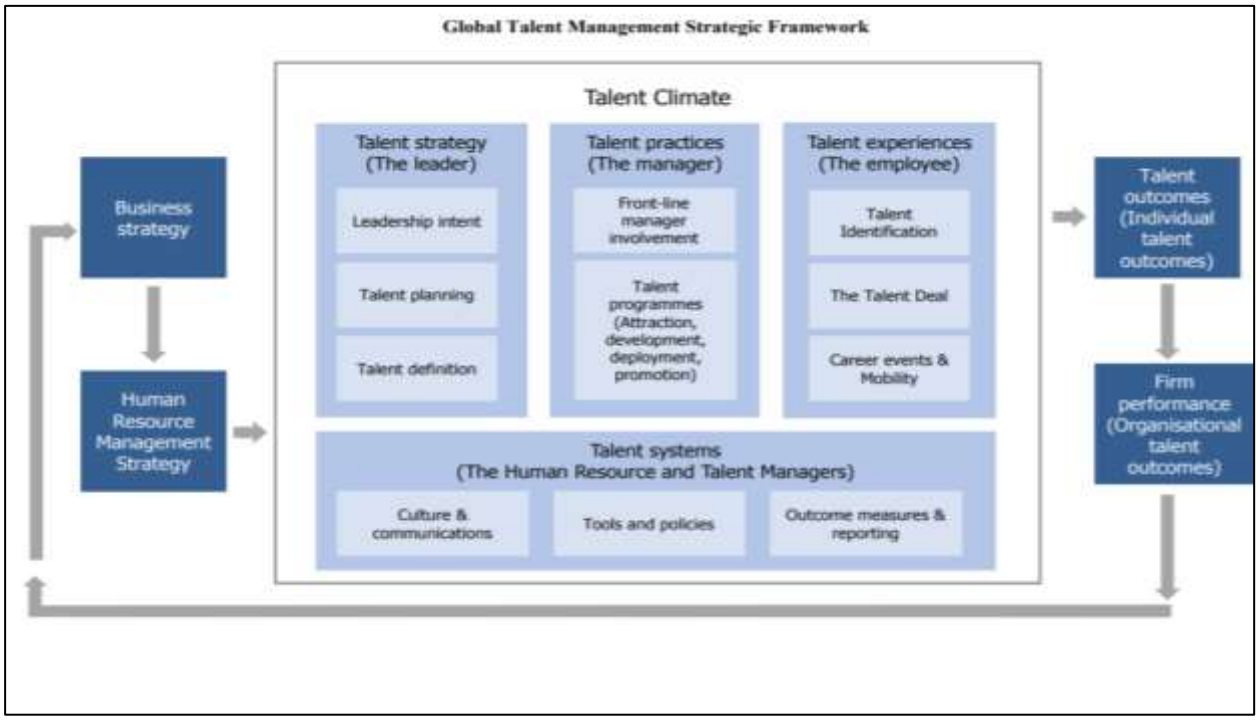

Figure 3.3 Global talent management strategic framework

Source: Adapted from King (2015:279)

Strategic TM is the extension of the differentiated approach also involve systematic identification of roles along with the identification and improvement of high-potential employees, supported by a differentiated HR architecture to engage, develop and retain talent (Collings & Mellahi, 2009). However, King (2015) presents a framework of planned TM in the global context and argues GTM to be a business-led activity, entrenched within wider systems involving manifold business actors.

Becker and Huselid (2006) in conceptualising the HR process, suggests a framework for GTM as a system view. Therefore, through this structured talent system, the performers co-create GTM to operationalise human capital resources and influence the employment relationship to generate value (Becker & Huselid, 2006). In addition, HR and talent managers facilitate GTM processes, associated communications, outcomes measurement, reporting and provide guidance and associated training to the business to support supervisor effectiveness (King, 2015). Scullion et al. (2010:106) define GTM as

"all organisational activities for the purpose of attracting, selecting, developing and retaining the best employees in the strategic roles on a global scale".

3.5.2.3 The multiple-actors model: employees at the heart of the talent system

Effective management of talent entails the participation of multiple actors in a coherent and business entrenched activity which facilitates at its core an HRM process but more considerably, moves beyond process to practices which engender involvement of the actors and their contribution to individual and organisational outcomes (Thunnissen, Boselie, & Fruytier, 2013). Figure 3.4 presents the multiple-actors model: employees at the heart of the talent system (King, 2015:279).

Figure 3.4 The multiple-actors model: employees at the heart of the talent system

Source: Adapted from King (2015:279)

Managers continue to experience challenges in the management of talent (Pfeffer, 2001, 2006). However, both management and academic perspectives agree that management participation is required for effective TM (Stahl et al., 2012). Despite that, leadership plays a key role in connecting the strategy and performance through promoting effective psychological contracts (McDermott, Conway, Rousseau & Flood, 2013). Therefore, the voice of leadership is central to organisational climate, and arguably to the resulting talent climate, noticeable by employees in an organisation which performs TM (McDermott et al., 2013).

Despite that, leadership has to make sure that TM strategies are effective, support the organisational goals and add value to the business imperatives (Van Zyl et al., 2017). Line managers are directly accountable for identifying, selecting and recommending the high potential and high performing talented employees in their teams to become part of the official TM pool (Van Zyl et al., 2017). Despite that, strategic business research has noted that differences among middle managers has a large impact on organisational performance (Mollick, 2012) and that front-line manager duties progressively include previous responsibilities of HR including TM. Because the SHRM and the TM literatures are limited by current knowledge of business implementation of SHRM, plans regarding the talent pool and the propensity to ignore the role of multiple actors by focusing on top management's role overlook the role of front-line manager in enacting these policies (Lopez-Cotarelo, 2013) and the employee's involvement role (Bjorkman, Ehrnrooth, Houlund, Makela, Smale & Sumelius 2013). Cappelli (2013) further argues the prospective contribution of supervisor in the talent system.

The supervisor role is anticipated to have meaningful influence on TM results and is pivotal for the exchange of resources and recognising inconsistency performance (Becker & Huselid, 1998). Additionally, spanning the relationship between the business and its workforce, the HR function is debatably a crucial partner to the delivery of strategy through the employees (King, 2015). Therefore, HR is responsible for the talent strategy in line with the organisational plan as well as guiding management and leadership teams in applying the tools, systems and processes of TM (Van Zyl et al., 2017). Besides, there is a global mobility role for HR within the wider realm of TM. However, a more particular embedded role as actor in GTM is not clearly well-defined (Farndale, Scullion & Sparrow, 2010).

HR's role in the management of the organisation's talent is important, relevant and enables the interface between performers (King, 2015). Despite that, HR's role is a custodian of the employee relationship for the organisation. HR is well-positioned to facilitate the TM among the other core performers. Firstly, to support the top management's active focus on talent and competence requirements, informed by strategy. Secondly, to support, coach and enable the day-to-day management of talent by supervisors, who may comprehend the planned imperative but need training, guidance, support and feedback in their enactment of the strategic imperative and accountability. Thirdly, to enable employee communications and engagement in talent

initiatives. Lastly, in facilitating TM processes and HR's role necessarily includes capacities of results and reporting (King, 2015).

According to Van Zyl et al. (2017), organisations need to go as far as assigning TM activities, tasks and deliverables to the performance management process in the form of key performance indicators. King (2015) argue that the employee participation is the heart of GTM, and indeed the employee reaction to talent identification, should be considered. Therefore, talented employees have a role to play in order to ensure that they obtain necessary skills, knowledge and experience to assist their career growth aspirations (Van Zyl et al., 2017). Besides, employees are one of many stakeholders in managing HR (King, 2015). Collings (2014) argues that a participant may experience direct, and comparatively near-term consequences in the exchange-based relationship. In support, King (2015) argues that employee reaction to GTM is essential to effective GTM, however, is mainly ignored.

3.5.2.4 Talent management wheel

Stahl et al. (2012) argue that talent is pivotal to the operations of any organisation and this narrates to business survival. According to Al Ariss et al. (2014) each organisation should align their TM practices with the organisational strategy and values. In their article titled Leveraging your Talent: Talent Management, Stahl et al. (2012) presents six principles which they suggest organisations need to consider to align their TM. The following six principles are depicted in the TM wheel (Stahl et al., 2012:27), presented in Figure 3.5, that follows:

Figure 3.5 The talent management wheel

Source: Adapted from Stahl et al. (2012: 27)

The study conducted by Stahl et al. (2012) with thirty-three global organisations in eleven countries (representing America, Asia-Pacific, Europe, Middle East and Africa) found that prosperous organisations use six main values, namely: alignment with plan, internal consistency, cultural embeddedness, management involvement, a balance of local and worldwide needs and branding through differentiation. This indicate that business plan is the initial stage required in TM to assist in attracting, enlisting and retentive the right workers. The principles are explained as follows:

- **Alignment with strategy**

According to Kermally (2004), TM should be aligned with the organisational strategy. Stahl et al. (2012) indicate that strategic flexibility is important and organisations should be able to adapt to altering business conditions and revamp their talent approach when required. It is therefore critical that TM should not neglect other pivotal roles unique to the schools and departments. Bradley (2016) argues that it is important for individual universities to identify extra roles critical to the implementation of their specific strategy since not all university strategies are matching.

- **Internal consistency**

Stahl et al. (2012) state that consistency is crucial. Therefore, internal consistency refers to the way the organisation's TM practices fit with each other. For example, if an organisation invests considerably in developing and training high-potential employees, it should emphasise employee retention, competitive compensation and career management. Likewise, the right people need to be selected and deployed in suitable positions. Thereafter, sound TM practices, particularly talent development, rewards and performance management should be maintained through continuous management commitment (Mokgojwa, Barkhuizen & Schutte, 2017).

- **Cultural embeddedness**

Stahl et al. (2012) indicate that, leading organisations use training and development not only to advance employee skills and knowledge, but to manage and streén culture. Therefore, successful organisations consider their corporate culture as a source of maintainable competitive advantage. According to Pienaar and Bester (2008) and Netswera and Rankhumise (2005) universities should create a talent culture conducive for the attainment of multiple priorities relating to the working environment, such as recruitment and retention, performance management, succession planning and engagement, and ensure that these become planned TM imperatives.

- **Management involvement**

According to Stahl et al. (2012), senior leaders need to be actively involved in the TM process and make recruitment, succession planning, leadership development and retention of key employees their top priority. Therefore, TM process needs to have extensive ownership, not only by HR, but managers at all ranks including chief executives. However, the level of executive commitment is infrequent (Stahl et al., 2012). Besides, Joyce and Slocum (2012) argued that senior managers should manage talent in light of strategic needs and opportunities of their organisations.

- **Balance of global and local needs**

Organisations need to figure out how to react to local demands while maintaining a rational HR strategy and management approach. Despite that, organisations that find an

equilibrium between worldwide standardisation and integration and local implementation have the best of both worlds (Stahl et al., 2012).

- **Employer branding through differentiation**

Competitive advantage in TM does not just come from identifying key activities (for example, recruiting and training) and then implementing best practices, but successful organisations adhere to the above mentioned six key principles (Stahl et al., 2012). In addition, Dries and Pepermans (2012) believe that what constitutes talent, needs to be agreed upon by line managers, HR managers, and top managers, all of whom might have different perspectives on the sources of competitive advantage for their organisations.

3.5.2.5 CRF talent management system

According to Scullion et al. (2010), HRM should work to improve these talents and maintain them in order for that talent to be deployed within the organisation. Organisations need to go as far as assigning TM activities, tasks and deliverables to the performance management procedure in the form of key performance indicators (Van Zyl et al., 2017).

According to Ashton and Morton (2005), the integration of TM is critical and research shows that without integrating TM activities, the effort invested in it will be dissolute with poor outcomes. Therefore, one way of attaining the system integration and alignment is the CRF TMS. This system's view of talent has five elements namely:

- Need – the organisational need derived from the business model and competitive issues.
- Data collection – the central data and intelligence critical for good talent decisions.
- Planning – talent planning is guided by data analysis.
- Activities – the conversation of plans into incorporated sets of activities.
- Results – costs, measures and effectiveness criteria to judge the value and impacts of TM.

Figure 3.6 presents the CRF TMS (talent management system) as depicted in the Journal of Strategic HR Review (Ashton & Morton 2005:31).

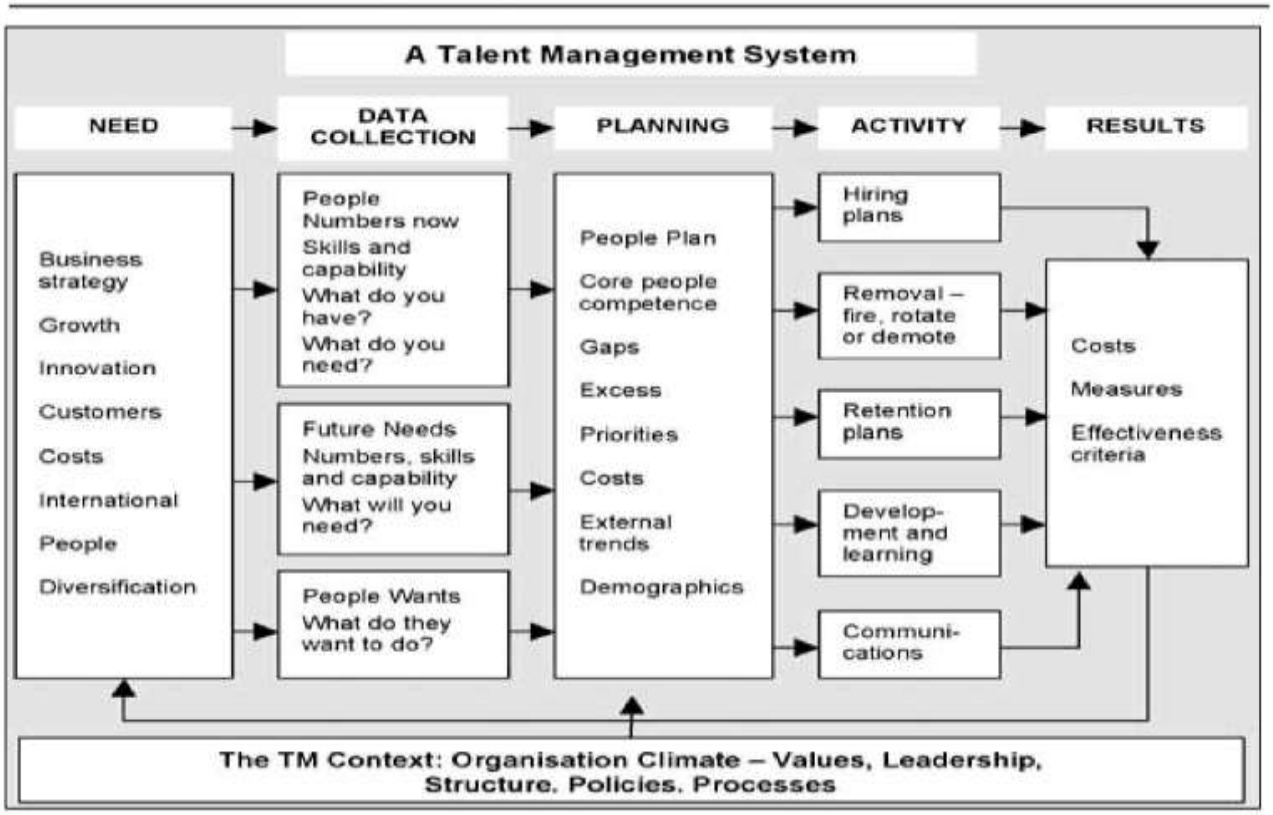

Figure 3.6 The CRF talent management system

Source: Adapted from Ashton and Morton (2005:31)

Using a CPR system will help TM to become a planned differentiator rather than a normal set of HR processes. Furthermore, as talent continues to be regarded as a strategic differentiator, its management will take more of a planned role (Ashton & Morton, 2005). According to Robbins and Coulter (2010) planning involves the process of defining goals, finding a strategy for attaining those objectives and emerging the plans to coordinate and integrate the activities. The role of the HR department at HSU should guide and support the management team by allocating TM activities and tasks to implement TM models.

HSU specialises in health sciences programmes which are designed for training of competent professionals in the health care sciences (Sethusa, 2016). However, the implementation of TM, like many of the fundamental systems and process within a university, relies on the skills and expertise of professional administrators and academic managers (Bradley, 2016). It is always a challenge to employ a person with the expected skills. Personnel with institutional memory are heading for retirement, thus leaving the talent gaps. Some of the challenges of TM in HSU are recruiting talent, retaining talent, and training and developing talent amongst the administrative employees.

An integrated TMS will be appropriate at a HSU since the management of talent will assist in identifying the current and future needs of training to nurture administrative employees' talent in order to link and align TM with the organisational strategy. Therefore, all-inclusive programme should also recognise and reward talent throughout all administrative roles (Bradley, 2016).

3.5.3 Advantages and disadvantages of talent management

Ashton and Morton (2005) believe that TM is a required factor by means of which employees become involved in the activities designed to realise the plan of the organisation. Below are the advantages and the disadvantages of TM.

3.5.3.1 Advantages

- TM creates a positive effects and performance for all stakeholders – employees, customers, business partners and investors. Furthermore, TM is complex process, mainly oriented towards the best interest of the organisation. Therefore, in the public sector as well it will provide and improve efficiency, reduce risk and costs (Vladescu, 2012).
- TM guarantee that each employee with their own precise talents and skills has been placed into a suitable position such as employee development (Esmaeili, 2016). Then, a good integrated TMS should include options for employee learning and development. It enables employees to take courses, develop their skills and some cases pursue certifications relevant to their professional development. TMS solutions also collect data on what skills an employee has and allows the HR team to assign training which the employee can then access their biographical information from the system (Vladescu, 2012). Therefore, it is very important to integrate TMS with all facets of HRM (Alsakarneh & Hong, 2015). HSU should explore and implement the TMS for administrative staff and it should include the choice of learning and development.
- TM provide employees with the resources, improving and rewarding them with fair service compensation, so that the people will have motivation to compete for improvement in the workplace and feel that they can improve as special and talented employees (Esmaeili, 2016). All the administrative staff have their own

talents which should be explored by setting the success stage for them as there is no person without talent.

- TM provides better job opportunities for example, it increases employee and manager engagement, the employee profile empowers employees and managers to interact with employee's professional career progression. An integrated TMS solution encourages them to invest in the organisation and align their daily work with the business goals while also focusing on their professional goals (Ashton & Morton, 2005; Esmaeili, 2016).

3.5.3.2 Disadvantages

- Talented employees leave the organisation for many reasons, mainly due to being unmotivated and dissatisfied with their jobs (Hafez et al., 2017). This has implications for cost of hiring if the employees leave the institution because they are generally dissatisfied with current work.
- One of the reasons for the employees to leave their job is less pay. Sometimes employees compare their pay with the amount of work they do, rather than their competency of performing the job. In this case, it will be beneficial to look at their performance through performance management system and offer performance bonuses or pay increase (Vladescu, 2012).
- Poor retention of TM may be related to recruitment errors. If the institution is not clear about their expectations, this may make the employee feel that they are not suitable for the job and they tend to leave the institution without realising that their full potential is not utilised. Lack of strategic plan and no clear standards for TM and having a TM plan, but no action (Martel, 2003, Vladescu, 2012).

From the above discussion, it is clear that an organisation should have the capacity to recognise employees and the ability that may create value and deliver the competitive advantage for the organisation. In addition, TM aims at emerging and deploying the right employee at the right job on the right time and provide them with the right environment to show off their talents in a best possible way for the organisation (Uren & Jackson, 2012). Moreover, Cappelli (2008a), accentuated the role of internal opportunities concentrating on development avenues for employees as the plans for TM in organisations.

For the purpose of this study, the researcher has seen TM as holistic and integrated management practice of balancing the demand for critical skills with the supply of critical

skills in both the short-term and long-term. TM includes the proactive identification, planning, attraction, development, retention and monitoring of both the supply and demand of critical positions and key talent.

3.6 TALENT MANAGEMENT IN THE CONTEXT OF ADMINISTRATIVE STAFF IN THE HIGHER EDUCATION SECTOR

According to Chemaiyo (2016), TM empowers organisations to achieve its goals and satisfy the clients by providing quality products and services by qualified employees. In addition, the implementation of appropriate TM initiatives in HE can lead to the development of the human capital of the nation (Rao, 2017). The context of HE and administrative staff in the HE is described below.

3.6.1 The higher education sector

Higher education institutions (HEIs) are finding it increasingly problematic to attract and retain skilled, innovative and talented people in the global war for theoretical talent (Mokgojwa et al., 2017). According to Takács-György and Takács (2017) TM is one of the responsibilities of HE institutions. TM facilitates the attraction, development and retention of the necessary skills and knowledge within an organisation through a sound strategy, practices and involvements (Erasmus et al., 2017). In addition, attracting and retaining quality is imperative to educational institutions because low retention might create both financial and academic implications (Barkhuizen et al., 2014).

The top institutions are the organisations that focus on the future and foresee what skills, attitudes, and behaviours they need from gifted employees (Berliandaldo & Hidayat, 2017). One of the main characteristics of a world-class university is not only the availability of plentiful resources, but also the concentration of talent, including the administrative staff and their skill (Jung & Shin, 2015). Furthermore, a study conducted by Barkhuizen et al. (2014) found that TM practices remain problematical in government institutions such as HE (Barkhuizen, 2013; Mokgojwa, Barkhuizen & Schutte, 2017; Mtila, Barkhuizen & Mokgele, 2013).

TM is a main factor in the growth of an organisation's success and a priority for business and universities. TM in education is a procedure of expectation and implementation of the main individuals required by the organisation in the future (Yasin, 2014).

An institution with talented personnel can develop a status for being a good place to work, with great learning environment where quality in education is anticipated. The study conducted by Rao (2017) argues that the higher education institutions in India are dealing with the matters of talent crisis and retention of personnel. However, this is happening as most of the institutions fail to realise the broad dimensions of TM, its proper application and the value (Rao, 2017).

Any institution that offers HE is driven by quality employees which, becomes an instrumental asset for that organisation. Furthermore, attracting and retaining quality talent is very important to educational institution as a low talent retention rate might create both financial and educational consequences (Barkhuizen et al., 2014). Without well qualified and committed staff, no academic institution can ensure sustainability and quality over the long term (Pienaar & Bester, 2008).

In addition, the implementation of appropriate TM initiatives in higher educational institutions can lead to the improvement of the human capital of the institution. TM in an institution helps to find the right talent, development of that particular talent and retaining it in the institution for its achievement and progress (Rao, 2017). However, management of HEIs should consider that "money spent on TM is an investment not expenses" (Rao, 2017). Furthermore, HEIs need to acknowledge and value talented individuals as a key resource. The right people need to be selected and deployed in suitable positions. Then, sound TM practices, especially talent development, rewards and performance management, should be maintained through continuous management commitment (Mokgojwa et al., 2017).

3.6.2 Administrative staff in the higher education sector

According to Ablanedo-Ross, Blevins, Gao, Teng & White (2011), Hurlimann et al. (2013), and Pick, Teo and Yeung (2012) research on administrative staff in HE settings is still limited, although recognition of the importance of this occupational group is growing (Sebalj, Holbrook & Bourke, 2012). Despite that, administrative staff face significant

problems in HE institutions in terms of career development opportunities, management support, poor management systems, impractical deadlines, lack of participation in decision-making, and poor reimbursement (Barkhuizen et al., 2014). However, Smerek and Peterson (2007) regard administrative staff as the key constituent in higher education institutions, because they are responsible to take care of the day-to-day operations of the institution. Therefore, it is almost impossible to attain a department's goals for the intellectual and personal development of administrative employees without their assistance (Rothmann & Essenko, 2007).

Administrative staff is defined as staff that is not involved in academic-scientific work (Brandenburg, 2016). In addition, administrative staff is the employees in the core area of management in the university (Omonjo, Oludayo, Eche, Uche & Ohunakin, 2015). Awino (2016) states that administrative staff are the employees who support academic staff, and deal with learners on non-academic work in the administrative function such as finance, human resource and marketing. In particular, their approach and behaviour have an important influence on students and client satisfaction and perceptions of the quality of service that the university offers to students and external stakeholders (Burke, Koyuncu, Fiksenbaum & Yasemin, 2013). Therefore, administrative staff plays a main role in the formation and enhancement of knowledge and modernisation in HE institutions (Rothmann & Essenko, 2007).

3.6.2.1 Skills required by administrative staff in higher education

According to Van Antwerpen and Ferreira (2016), the skills related to the jobs of administrative employees include, but are not limited to typing, computer literacy, numeracy, communication, planning and time management skills. It is essential for administrative staff to acquire these job skills. Since the administrative staff in HEs play a key role in presenting an institution's client services and competence (Barkhuizen, Schutte & Smit, 2015). Most policies and analyses ignore administrative staff as a crucially pertinent component (Brandenburg, 2016). Hurlimann et al. (2013) alluded to the fact that there is often a complete neglect for administrative staff's work in HE. Likewise, the study conducted by Barkhuizen et al. (2014) of administrative staff in HE found that all the TM practices are poorly applied and large gaps exist between the present applications versus the perceived significance of between talent review process, retention practices, talent development and commitment management.

Adam (2015) supports the view that secretaries are undoubtedly the best office management and administration experts in organisations all over the globe Administrative staff, being an indispensable group of employees, are thus the backbone of any organisation, including HEIs (Destiny, 2016). Administrative staff are a crucial part of the organisational structure in universities. Without these employees, universities cannot achieve their great mission of serving the community through their teaching services, research and ongoing education (Al Shobaki et al., 2018). Therefore, since technology is about improving work efficacy within work environments, it means administrative officers and secretaries have to be active in their profession, and well-informed with the technological world as soon as any new development is introduced.

However, the fourth industrial revolution offers great opportunities for innovation well beyond services that may need a new set of approaches in areas such as talent, cyber risk and competitive disruption (Insights, 2018). Fourth industrial revolution means the ability to adopt and integrate digital and physical technologies to improve operations, become more productive, grow and innovate (Insights, 2018). Administrative staff should adopt the fourth industrial revolution by using the digital technology to respond to transformation and motivation activities that will assist with both cognitive and non-cognitive skills required to support human work.

Administrative staff in HE institutions play a significant role in generating a high-quality customer service and representing the institution’s competency (Barkhuizen et al., 2014). In particular, their attitudes and behaviours can have a significant influence on students and client's happiness and views of the quality service (Burke et al., 2013). For example, assessment of communication skills training need for administrators that links together their previous and future performance, and guide decisions during improvement effort (Destiny, 2016). Solomon (2007) gave credence to the significance of communication skills that they are the skills of reading, speaking, writing and listening which are office communication skills. Based on the above, customer service and communication skills training should be offered to administrative staff at HSU.

Many institutions generally expect administrative staff to familiarise themselves with the changing institutional needs and deliver the required levels of service, with or without the appropriate training. Training is not only about achieving suitable knowledge and skills, but also about building team spirit and collective commitment. Therefore, administrative

staff will be jointly committed in their work. In addition, when training aligns with policy, it offers administrative staff not only required skills but also builds their ability and commitment to making an active contribution to the development and delivery of excellent services (Hunter, 2018).

Baltaru and Soysal (2018) cite Blümel et al. (2010), who suggest that the increase in administrative staff reflects a rise in the number of professional and highly qualified administrative staff, and that this growth is at the cost of technical and administrative staff with lower levels of qualifications. An increasing literature such as Pienaar and Bester (2008) and Green (2014) consider how administrative growth leads to changes in academic identities and drives professionalism and managerialism into the HE sphere. However, there is little empirical study of the causes of change in the academic and administrative alignment of university staff. The differences in the number of administrators across HEIs can be accounted for by their enactment of formal organisation as a model of institutional identity and purpose (Baltaru & Soysal, 2018).

Hunter (2018) found that there is a general agreement that the present level of administrative ability is lacking to deliver high quality services and that there is room for development and improvement everywhere. Most institutions in the current economy cannot afford to lose senior administrative officers, or prospective high-level administrators, without suitable replacement given the great costs related to hiring an applicant from outside the organisation (Rao, 2017).

Against this background, the TM of administrative staff and the impact thereof on their work and customer service in HE is imperative from a research point of view. The section that follows provides a discussion of the effects of demographic variables on TM.

3.6.3 Current competency frameworks for higher education administrative staff

The terms “competency” and “competencies” focus on the personal attributes or inputs of an individual and is defined as "the behaviours and technical attributes that the individuals must have, or must acquire, to perform effectively at work (Chartered Institute of Personnel and Development (CIPD), 2016). However, a competency framework is understood to be the structure that describes each individual competency required by individuals employed in an organisation (CIPD, 2016).

Administrative staff play a critical role in planning, budgeting and international networking, as well as supporting conservative teaching and research work in the university. Universities have developed numerous training programmes to improve administrative staff members' job competency (Jung & Shin, 2015). Besides that, administrative staff need to demonstrate professional competency, such as being able to define missions, objectives and strategies, and be able to manage financial and human resources (Meek, Goedegebuure, Santiago & Carvalho, 2010). Vathanophas (2007) have established five main competencies for university administrative staff as follows:

- **Organisational understanding**

Understanding the affiliated institution is a main component for high-quality job performance, because organisational changes often demand new knowledge, skills, and behaviours from employees (Jung & Shin 2015; Cummings & Worley, 2001). Employees should know the university's history, present mission and the vision.

- **Problem-solving**

Problem-solving for administrative staff members involves flexibility coping with changes and looking for reasonable solutions, such as effectively utilising time and resources, and determining priorities when facing the problems (Jung & Shin, 2015). Therefore, the responsibility of the administrative staff is that they should be able to adapt quick, manage transformation and prioritise work by using the technology such as emails and electronic diary management faster than before. Administrative staff need to plan, coordinate, control and implement the activities as well as to manage their office records.

- **Interpersonal communication**

It involves one's relationship with others at work including co-workers and senior workers. Whitchurch and Gordon (2010) describe the importance of interpersonal communication as a skill because more professional staff are involved in management at the departmental level, and are likely to experience greater concern about managing people than managing the departmental budget. The knowledge, skill and problem-solving of administrative staff are important factors in promoting university's competitiveness and effectiveness.

- **Global competency**

It refers to foreign language skills and tasks regarding international departmental employees and students. The most obvious element of change in HE during recent decades is the increased internationalisation, in particular the increase in the number of enrolled foreign students (Rebora & Turri, 2010). However, Volkwein and Zhou (2003) argued, that the knowledge, skills, and problem-solving ability of staff are significant factors in promoting the university's competitiveness and effectiveness.

3.7 EFFECTS OF DEMOGRAPHIC VARIABLES OF ADMINISTRATIVE STAFF ON TALENT MANAGEMENT

3.7.1 Age

The younger administrative staff expressed more confidence and experience in the spheres of multimedia usage and manipulation, network and other presentation software, using mobile devices, using the internet, word processing and email (Erasmus et al., 2017). On the other hand, compared to younger people, elder employees require more support in terms of training in the areas of recent management techniques, project management and in-depth knowledge of the newest information technology field (Soja & Soja, 2016). However, the younger, more highly educated and less trained employees are likely to leave their counterparts (Manlove & Guzell, 1997).

3.7.2 Gender

The TM process might also consider numerous forms of diversity, such as gender that globally mobile professionals possess. With respect to gender, for example, there is unequal representation of females in science, technology and engineering occupations across the world (Servon & Visser, 2011). However, at the intersection of the organisational and individual's levels, barriers to females accessing leadership positions relate to lack of mentors, challenges in male-dominated environments (for example cargo movement) and more family responsibilities than male (Al Ariss et al., 2014). The research conducted by Van Antwerpen and Ferreira (2010) shows that the males have been under-represented for many years in the administrative staff environment and this is still the case currently. in this regard, the observation is that the administrative work is

dominated by females and younger generation. However, it does not mean that female administrative staff are more competent or talented than male staff (Amias & Segumpan, 2018).

3.7.3 Job title

According to Hunter (2018), administrative staff positions range from junior to senior level. The job title of administrative staff at HSU start from assistant admin to principal administrator.

3.7.4 Qualification

The study conducted by Amias and Segumpan (2018), show that administrative staff with higher qualification are more competent in doing their jobs. Therefore, the nature of administrative work inspires innovation and creativity and better performance (Ahmed et al., 2018). The administrative staff's qualification starts from diploma upwards.

3.7.5 Job level

As mentioned above by Hunter (2018) in terms of job title in HE, the exclusive approach to TM excludes individuals who are in lower levels in organisations such as technical and operational workers who did not have the chance to accumulate cultural, human and other forms of capital that provide sufficient personal characteristics (Al Ariss et al., 2014). Therefore, administrative staff on lower levels are the operational employees and they should be included on TM.

3.7.6 Work experience

The performance of administrative staff is correlated with gender, age, scientific qualification and place of work. The main indicators that indicate the competence of an administrative staff member is qualification, abilities, experience and compatibility with the job and functions of the organisation (Al Shobaki et al., 2018).

The study conducted by Hafez et al. (2017) indicate that there is no previous research that inspects the link between TM and the organisational demographic information such

as age, gender, education level and experience with the organisation. The following section looks at the conceptual framework on the link between TNA and TM.

3.8 CONCEPTUAL FRAMEWORK ON THE LINK BETWEEN TNA AND TM

According to Alsakarneh and Hong (2015), TM and HRM are linked with each other in theory, however, differ in the analysis as the following:

- TM includes all HRM activities and therefore it can be said that TM reflect a new term through which the HRM can be renamed. The new name of HRM focused on managing talent strategically (Iles et al., 2010).
- TM strategies includes many HRM plans (jobs) with a special focus on how to manage talents and the talented employees. According to this view, TM is an important point of internal and external environment of the organisation (Cappelli, 2008a).
- TM emphases on the growth efficiency through the management of sustainability, reserving and development of new talents who are already existed within the organisation (Cappelli, 2008a).

From the above discussion, it is clear that TM is very important to manage the talents of the employees and increase their competency through retaining and development of new talents. The talents of administrative staff in a HSU should be managed and retained based on the TM strategy. Nilsson and Ellstrom (2012) add that TM is closely related to old-style definitions of HRM/HRD. Therefore, TM is linked with activities that include joining new knowledge and doing things more quickly and efficiently (Chuai, Chuai, Preece & Iles, 2008).

TM is associated with a move from HR activities to all levels in the organisation regarding recruiting, retaining and developing talent. In addition, it is important to identify the specific needs in an organisation by constructing needs assessments, conducting detailed job and talent gap analyses as foundations for training and development (Nilsson & Ellstrom, 2012). The suitable needs of administrative staff should be identified in an organisational level by conducting the needs analysis and skills audit to close the talent gap with training. However, talent maybe associated with inherited predispositions, or talent may be

acquired and developed through learning and educational activities (Nilsson & Ellstrom, 2012).

According to Nilsson and Ellstrom (2012), identifying, developing, and training high-performing, competent, employable, and talented employees are complex processes, in which the HRD practices in an organisation are central. Therefore, training and developing talent includes career management practices in which individual and organisational needs are strategically aligned, including defining performance targets, supporting learning initiatives, and ensuring feedback from line management (Kock & Ellström, 2011). It is critical that the HSU should identify, align and develop the talents of administrative staff with the organisation needs through training.

Organisations' future plans depend upon an efficient and effective human resource strategy. Therefore, HRM should harmonise between its effective plan and the organisation's strategy and it should provide truly talented employees who are able to meet and achieve current and future goals of the organisation (Alsakarneh & Hong, 2015). Despite the development, training, rehabilitation, and evaluation programmes adopted by organisations, most talented employees remain unidentified within the organisation. Therefore, organisations need to implement effective plans of evaluation that may lead to the identification of TM opportunities as the main ingredient to attain the organisational mission (Williamson, 2011).

The primary aim of learning activities is to help the employees of an organisation to master the knowledge, skills, abilities, and attitudes that are required by the organisation (Mahapatro, 2010). Therefore, TM is conducted by firstly determining the organisation's needs of talent, secondly by finding a source of talent spread to manage the talent, thirdly by developing employees and their collective talents, and lastly by confirming that talented staff keep up with the step of TMS that is integrated in the HRM process and the goals of the organisation (Yasin, 2014).

However, Alruwaili (2018) found that training is the key instrument to polish and direct talents for the advantage of achieving the organisational objectives. Despite that, the increasing awareness of the organisation on the existence and shortage of talent, may trigger a recognition of the importance of talent to the growth of organisation. However,

organisations also compete in getting talented employees, either by searching from outside the organisation, or by training their current employees (Yasin, 2014).

According to Silzer and Dowell (2010), TM aligns the HR programmes and functions as a core business management process through four steps, namely:

- The identification of strategic talent needs
- HRD planning based on the competencies required and talent owned
- Development capacity
- Keeping talent (Silzer & Dowell, 2010)

Boudreau and Ramstad (2005) explain the connection between practices and processses by outlining a model that places the strategic management of talented human resources on the same level with the theoretical frameworks that drive strategic conclusions in other respected business functions such as marketing and finance. Figure 3.7 presents the Human Capital Bridge Decision framework as depicted in the Human Resource Management Review (Lewis & Heckman 2006:146).

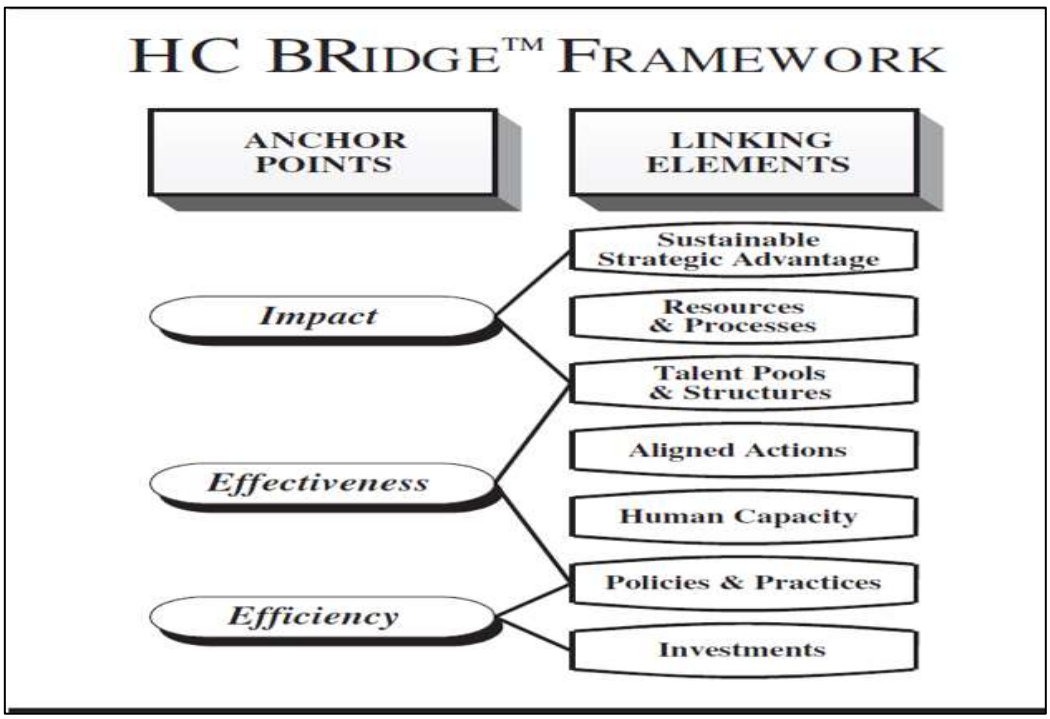

Figure 3.7 HC Bridge decision framework

Source: Adapted from Lewis and Heckman (2006:146)

The HC Bridge decision framework summaries decisions at three independent levels of analysis (impact, effectiveness and efficiency) and the organisational tools, practices and resources that affect the verdicts (Boudreau & Ramstad, 2005).

Analysis of the link reflects the differences between capabilities of individual employees with the needs of the current and future positions. To achieve the plan of the organisation through TM, employee development programmes should be designed at all levels of the organisation that meet the needs of the individual and organisation (Yasin, 2014). Employee development plans of administrative staff should be designed at all levels of the university and should be mapped with the choices of training that is suitable for their competencies. The talented employees (administrative staff) should have the training and development to create the feeling of loyalty to HSU and also feel that leaders of the organisation give them the adequate care.

Impact refers to the strategic impact of changing a talented group of employees by providing forty hours of quality training for everyone. Boudreau and Ramstad (2005), argue that identifying pivotal talent pools, those jobs with small increments in enhancement in quality or quantity, yield to large returns on measures of strategic interest and is critical to impact. However, efficiency refers to the degree to which interventions affect behaviours of the targeted talent pool. Therefore, efficiency means critical skills are attracted within equitable costs and effective HR solutions, and HR expedites decision making about talent pools through quantifiable measures (Magau & Roodt, 2010). In this regard, efficiency focuses on the resources used to bring HR practices into compliance (Boudreau & Ramstad, 2005).

Training and development interventions address the capacity of the talent or the aligned actions of the talent. Effectiveness measures are the shared measures in HR. Therefore, a decision to invest a strategy for talent planning and management is essential in a given intervention because it is in effect and independent of impact (Boudreau & Ramstad, 2005). As a result, considering efficiency without regard for impact can lead to poor talent decisions. For example, training programmes that distinctly develop performance of a superior talent pool, rather than a critical talent pool, will have a slight impact if the improved performance does not improve the accomplishment of the strategy (Boudreau & Ramstad, 2005).

Boudreau and Ramstad (2005) note that an efficiency focus, lacking a focus on effectiveness and impact, results in low cost performance, standardised and centralised HR practices. Decisions are usually made in HR based on efficiency measures, such as the number of peoples trained per session, cost per hire, and ratio of HR staff to total employees. Therefore, the linking elements describe the specific strategic components that support the anchor points. For example, impact needs defining sustainable strategic achievement, and making the definition specific by understanding the developments, deployed or where improved process quality, speed would most contribute to the sustainable strategic success (Boudreau & Ramstad, 2004).

By linking all views of TM, a TM process that includes identifying the high potential and high performer employees, developing talent pool, providing development practices, and developing retention practices is proposed (Tetik, 2016). The success of TM on administrative staff will depend on the availability of training and development. However, TM begins with the business strategy and carries on with the goal to develop and maintain a "nursery" of talent, which would require employees' professional qualities, loyalty and active involvement (Campeanu-Sonea, Sonea, Gabor-Supuran & Muresan, 2011). There are many strategies for the management of talented people such as encouraging talented people to share ideas, knowledge and skills with each other. Or to provide coaching and training programmes for talented people, to make sure that everyone in the organisation feels valued at work (Salacuse, 2006).

The talent development process starts by identifying the individuals' potential and performance (Ross, 2013). Once the development of talent forms part of the plan of the organisations, key people are developed for the key positions which ensures to gain competitive advantage (Collings & Mellahi, 2009). Therefore, the strategic development of talent is nurtured by planned and unplanned development facilities in organisational setting like learning activities (Tetik, 2016). The need for talent with competencies (general and specific) is undeniable, as the most important skills, knowledge and behaviours are necessary to execute the organisation strategy (Vladescu, 2012). There is a need for TM of the administrative staff to improve their competencies, therefore training should be planned properly to achieve the organisational competitive advantage. In addition, learning and performance improvement are the important parts of TM. Therefore, talent development provides an organisation with skilled, motivated and competent employees (Tetik, 2016). According to Vladescu (2012), each organisation

from the public sector should understand that only by using TM solutions, will they develop and engage their employees and a real appropriate plan for the management and talent needs of the next generation.

Furthermore, it is necessary to plan the development of HR staff based on the competence and talent possessed, the development of strategy aligned with the HR expertise, and the development of future-oriented HRD system (Berliandaldo & Hidayat, 2017). This HRD process also needs to be integrated with the individual performance plan (IPP) and aligned in the preparation of TNA. In addition, the HRD process needs to be evaluated quarterly (every three months) to be known related to the development of each individual. With the continued development of talent, the organisation has the availability of talents is good to be able to carry out the work well (Berliandaldo & Hidayat, 2017). IPP of administrative staff should be aligned with their training need and the HRD process should be evaluated every three months.

Consequently, both TNA and TM are incorporated with the employment plan of the organisation. Despite that, both TNA and TM are focussed on achieving the goals of the organisation, identifying the training that needs to be provided to the individual talented employees based on their jobs (Altarawneh & Aseery, 2016; Alruwaili, 2018; Balisi, 2014; Nwoke et al., 2016). A planned TNA and TM linked with the goals of the organisation, will address the identified talent gaps of administrative staff by providing training as is the only solution.

Table 3.1 Phases and success factors of talent management

	Model 1 **Talent life cycle**	**Model 2** **Global talent management strategic framework**	**Model 3** **Multiple actors**	**Model 4** **Talent management wheel**
Phases	Attracting	Organisational level strategy (Macro)	Leaders and top management/ organisational leadership	Alignment with strategy
	Acquiring	A daily business activity or operation level (micro)	Supervisors and managers	Internal consistency
	On-boarding	Individual level (micro)	Talent pool of employees	Cultural embeddedness
	Training		Human resource and Talent managers	Management involvement
	Maximising performance			Balance of global and local needs
	Developing and succession			Employer branding through differentiation
	Retaining			
	Recovering			
Success factors	**Model 1**	**Model 2**	**Model 3**	**Model 4**
	Return on investment (ROI) on the investment of talent as a resource, when the return is considered broadly to include benefits beyond financial ones alone. Therefore, to achieve the higher return, many people in the more competitive organisations are doing something with talent that enables them to leverage this important asset better than the other competitor. However, a common way in which this is done is through better training.	Top management involvement and facilitated by human resources. Furthermore, HRM process moves beyond process to practices which create participation of the actors and their individual and organisational outcomes.	Leadership plays a key role in linking the strategy and performance through promoting psychological contracts. Focusing on top management's role.	Strategic flexibility is important and organisations should be able to adapt to changing business conditions and revamp their talent approach when necessary. Therefore, consistency crucial so that organisation should invests significantly in developing and training high potential individuals and emphasise employee retention, competitive compensation and career management.

3.9 CONCEPTUAL FRAMEWORK MODEL OF TNA AND TM OF THE STUDY

Based on literature review, a conceptual framework has been developed which is tested in HSU for the administrative staff (Figure 3.8). The framework shows the committed TNA process and the TM practices in HSU. Therefore, the management of talent is at its core focused on strategy, identification, resourcing, development and deployment and retention of employees and their respective skills and knowledge, consistent with mandate of HRs. Furthermore, strategic TM involve the systematic identification of roles along with the identification and development of high-potential individual, supported by a differentiated HR architecture to engage, develop and retain talent (Collings & Mellahi, 2009).

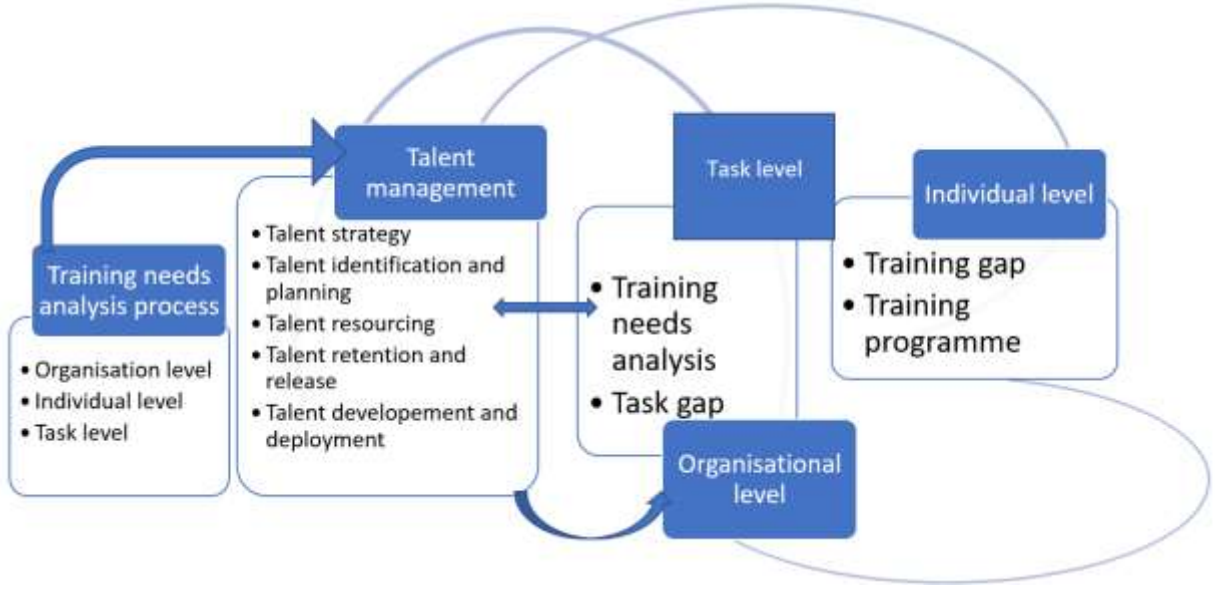

Figure 3.8 Talent management and training needs analysis conceptual model of HSU

Effective management of talent needs the involvement of multiple players in a coherent and business embedded activity that facilitates the core of the HR process that moves beyond process to practices which creates participation of the actors and their contribution to individual and organisational outcomes. This framework displays with thin arrows that the training programmes and training gap should start on the foundation of the TNA process and TM practices that should cover organisation, individuals' and task aspects of the organisation.

On the other hand, the thin arrows of the conceptual HSU model illustrate the expected weaker relationships between the management of talent and TNA on the individual and task level. The thick blue arrow shows the expected relationship between the TNA process and the TM practices. It therefore demonstrates the expected positive relationship between the perception of administrative staff of the TNA process and TM practices. Furthermore, it shows that it is expected that there will be a relationship between the TNA process and TM practices on organisational level concerning the management of talent based on the TNA and task gap.

3.10 CHAPTER SUMMARY

This chapter presented a range of relevant literature on conceptualisation and definition of talent and TM, different approaches to TM, the purpose and significance of TM and the TM process. The chapter also provided the models and a brief introduction to the TM in the context of administrative staff in the higher education sector as regards its current specific challenges facing the HSU. The effects of demographic variables on TM, the conceptual framework on the link of the TNA process and TM practices were, the phases and success factors of the TM and the conceptual framework model of the TNA and TM of the study were discussed. The next chapter will focus on the actual overview of the research process followed in this study.

CHAPTER 4

RESEARCH METHODOLOGY AND DESIGN

4.1 INTRODUCTION

This chapter summarises the research methodology that was used to explore the relationship between the TNA process and TM practice. The methodology selected in this chapter comprises to: the research philosophy, research design, research approach, the composition of the research respondents, measuring tools, research procedure and statistical analysis.

4.2 RESEARCH PHILOSOPHY

Guided by nature of the phenomenon under investigation and the obligation to remain objective, the current study adheres to a positivistic worldview philosophy. According to Babbie (2016) positivism describes scientific approach, believing that scientific truths could be positively verified through empirical observations and the logical analysis of what is observed. Consequently, in line with positivism, a deductive approach to reasoning based on the theory was applied. This theoretic logic was useful in describing the research problem. It also proved useful in constructing a explanation for the nature of the link between the variables (Babbie, 2010). This deductive positivism was subsequently quantitatively oriented, making it possible to improve objective and precise indicators as well as measures. Such indicators and measures frequently utilise quantities to capture significant aspects of the variables under study (Babbie, 2010).

The assumptions of philosophical, ontological, meta-theoretical and epistemological was discussed in Chapter one. Drawing from positivism, the study includes descriptive research, consequently, gaining the potential to measure the impact, effectiveness and efficiency of the TNA process and TM practices on the administrative staff. Leedy and Ormrod (2013) provide a detailed explanation on the above, as they assert that the most effective way to avoid any prejudices and remain objective is for the researcher to opt for an efficient strategy to measure the phenomenon they are investigating. In this research, the nature of reality is the respondents' awareness and understanding regarding the TNA

process, TM practice and the required skills of administrative staff. It is expected that the respondents should give honest answers to research - related questions and freely share their experiences. The reseacher assumed that the data would be recorded accurately, and that rational conclusions would be drawn from the available information.

4.3 RESEARCH DESIGN

Research design gives framework to the study to address a particular research problem or opportunity (Ligthelm, Martins & Van Wyk, 2005). Research design is a significant part of any scientific study (Spector, 2012). The main concepts on research design were presented in chapter1 and the researcher employed of exploratory, descriptive, correlation and Mann-Whitney test. Therefore, the cross-sectional approach adopted followed an on-line survey for data collection with the intent of generalising from sample to a population (Creswell, 2014). This methodological choice allowed the researcher to report on what was happening and why (Cherry, 2018). Theoretical deduction is used to describe and clarify possible links between the variables − TNA, talent and TM in HSU of administrative staff (Babbie, 2010).

4.4 RESEARCH APPROACH

The outcomes of the study are deemed beneficial due to the relationship established. Moreover, the level of significance between the variables is expected to work as a beneficial source of insight to human resource advisors in identifying training needs, talent and talent management. This information will help in defining and exploring the best human resource approaches for enhancing job linked results like training needs, talent and talent management in the administrative staff at a HSU.

4.5 RESEARCH METHOD

By taking the positivist stand, the researcher selected a research methodology suitable for achieving the study's objectives. This methodology outlined the procedure for delineating the research strategy into particular methods and the techniques that were applied to collect and analyse data (Maylor & Blackmon, 2005).

4.5.1 Determination and description of the sample

Babbie (2013), defines a population as a group of individuals that the researcher is interested to study and draw conclusions on. The target population of this study comprised of permanent administrative workers who were permanently working in a HSU environment (N=200). The employees were chosen because they are office based or work employees. A census sample was drawn to attain the aims of the study.

Only 163 respondents completed the online survey, elicited a response rate of 81.5 %. This response rate was satisfactory to the investigator, as it is more than the recommended 70-80% response rate (Morton, Bandara, Robinson & Carr, 2012; EPI INFO, version 7.2.3.1). The response rate was defined as the percentage of the total number of completed and returned surveys (N=163) as subtracted from the total number of respondents invited and sent the survey (N=200) (Morton et al., 2012). The following demographic variables: age, gender, job title, educational level, job level, tenure, the schools and department were used to describe the profile of the sample.

4.5.1.1 Composition of the sample by age

This section presents data on the age distribution of the respondents.

Table 4.1 Age distribution of sample (N=163)

Category	Frequency	Percent	Valid percent	Cumulative percent
20-30 years	18	11.0	11.0	11.0
31-40 years	76	46.6	46.6	57.7
41-50 years	38	23.3	23.3	81.0
51-60 years	27	16.6	16.6	97.5
60 + years	4	2.5	2.5	100.0
Total	**163**	**100.0**	**100.0**	

Table 4.1 indicates that the age groups: respondents were between 20 and 60 +years of age. The frequencies of the age group indicate that 46.6% of the respondents were between 31 and 40 years. This were in the majority in the census sample. 11.0% consist of the respondents aged between 20 and 30 years, 23.3% comprised of respondents aged 41 and 50 years, 16.6% comprised of 51 and 60 years, whilst 2.5% comprised of

respondents aged between 60 +years (N=163). This is vividly represented in Figure 4.1 below.

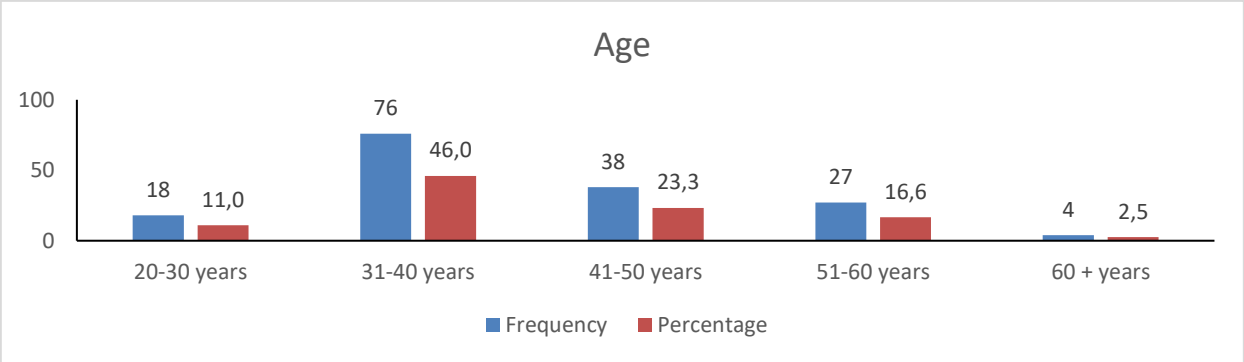

Figure 4.1 Sample distribution by age (N=163)

4.5.1.2 Composition of the sample by gender

This section presents data on gender distribution of the respondents.

Table 4.2 Gender distribution of sample (N=163)

Category	Frequency	Percent	Valid percent	Cumulative percent
Female	120	73.6	73.6	73.6
Male	43	26.4	26.4	100.0
Total	**163**	**100.0**	**100.0**	

Table 4.2 indicates that the gender groups consists of 73.6% females and 26.4% males. It is; therefore, evident that the census sample comprised mostly of more females than males. Figure 4.2 below, illustrates this further.

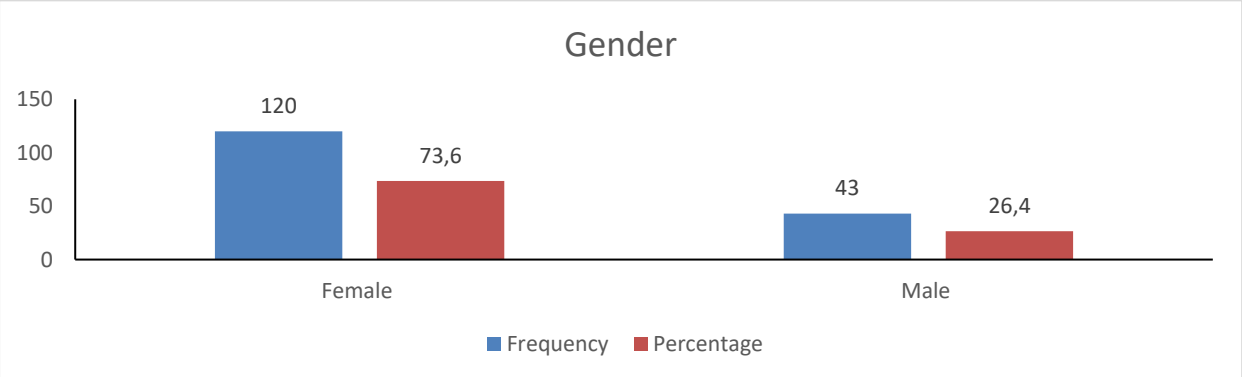

Figure 4.2 Distribution by gender (N=163)

4.5.1.3 Composition of the sample by job title

This section presents data on job title distribution of the respondents.

Table 4.3 Job title distribution of sample (N=163)

Category		Frequency	Percent	Valid percent	Cumulative percent
Administrative officer		121	74.2	74.2	74.2
Secretary		42	25.8	25.8	100.0
Total		**163**	**100.0**	**100.0**	

Table 4.3 indicates that the job title consists of 74.2% administrative officers and 25.8% secretaries. It therefore, evident that the census sample comprised of mostly more administrative officers than secretaries. Figure 4.3 below, illustrates this further.

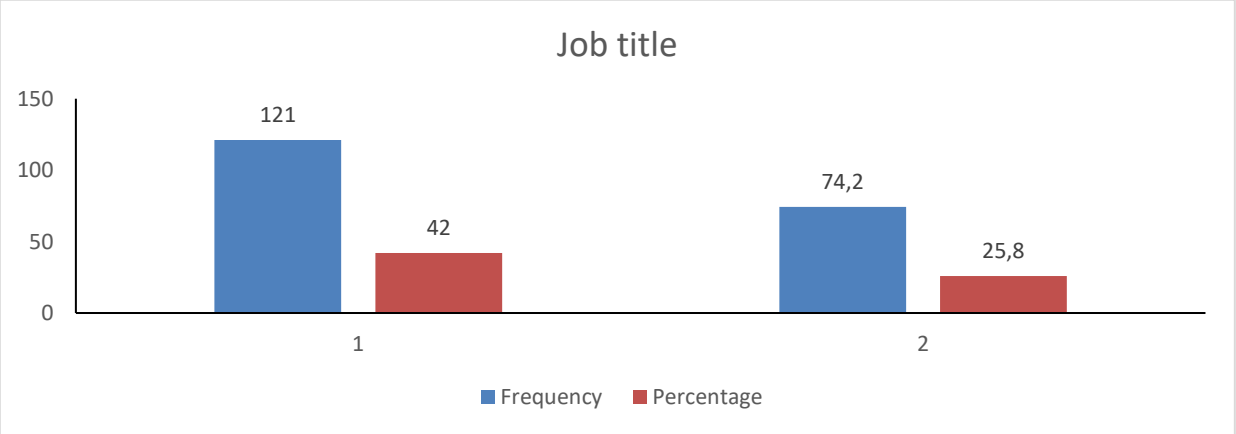

Figure 4.3 Sample distribution by job title (N=163)

4.5.1.4 Composition of the sample by educational level

This section presents data on educational level of the respondents.

Table 4.4 Educational level distribution of sample (N=163)

Category	Frequency	Percent	Valid percent	Cumulative percent
Certificate	40	24.5	24.5	24.5
Diploma	51	31.3	31.3	55.8
Degree	42	25.8	25.8	81.6
Honours	19	11.7	11.7	93.3
Masters	8	4.9	4.9	98.2
Phd	3	1.8	1.8	100.0
Total	**163**	**100.0**	**100.0**	

Table 4.4 indicates that the educational level distribution consists of of 24.5% Certificate, 31.3 % Diploma, 25.8% Degree, 11.7% Honours, 4.9% Masters and 1.8% Phd. The frequencies indicate that the majority of respondents had a Diploma (31.3%). Figure 4.4 below, illustrates this further.

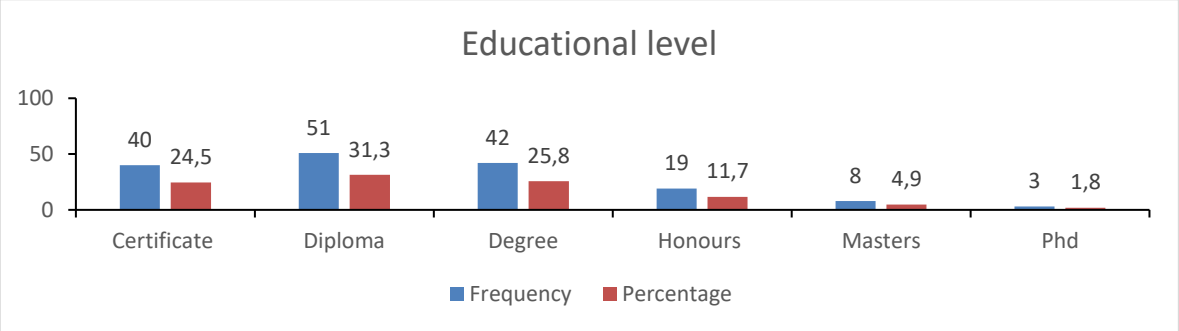

Figure 4.4 Sample distribution by educational level (N=163)

4.5.1.5 Composition of the sample by job level

This section presents data on job level of the respondents.

Table 4.5 Job level distribution of sample (N=163)

Category	Frequency	Percent	Valid percent	Cumulative percent
Peromnes grade 8	32	19.6	19.6	19.6
Peromnes grade 9	38	23.3	23.3	42.9
Peromnes grade 10	16	9.8	9.8	52.8
Peromnes grade 11	30	18.4	18.4	71.2
Peromnes grade 12	47	28.8	28.8	100.0
Total	**163**	**100.0**	**100.0**	

Table 4.5 indicates that the job level distribution consists of of 19.6% peromnes grade 8, 23.3% peromnes 9, 9.8% peromnes 10, 18.4% peromnes 11 and 28.8% peromnes 12. The frequencies indicate that majority of respondents had peromnes grade 12 (28.8%). Figure 4.5 below, illustrates this further.

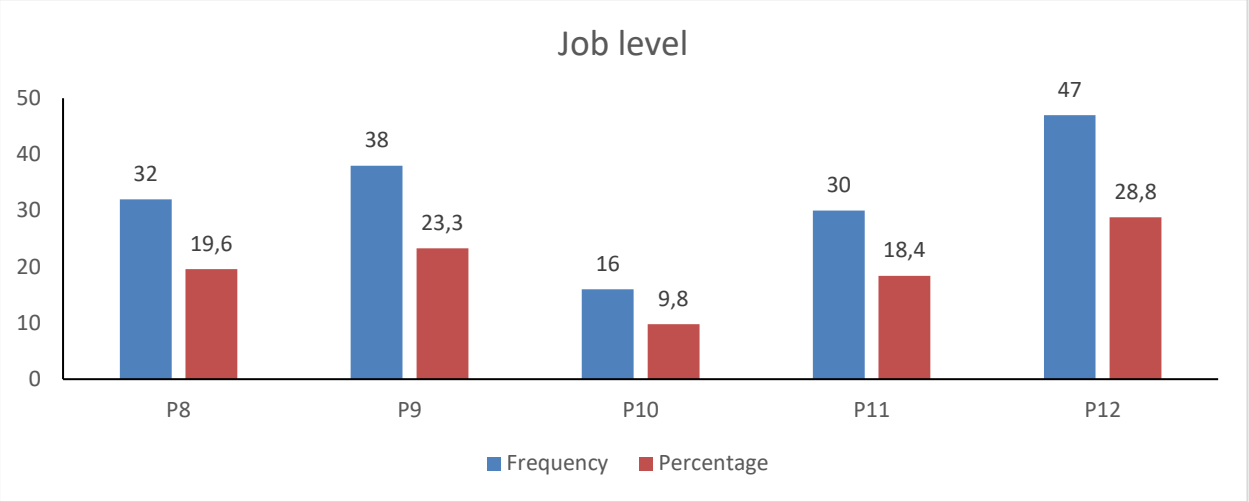

Figure 4.5 Sample distribution by job level (N=163)

4.5.1.6 Composition of the sample by tenure

This section presents data on tenure of the respondents.

Table 4.6 Tenure distribution of sample (N=163)

Category	Frequency	Percent	Valid percent	Cumulative percent
0-5 years	76	46.6	46.6	46.6
6-10 years	32	19.6	19.6	66.3
11-15 years	20	12.3	12.3	78.5
16-20 years	7	4.3	4.3	82.8
20 + years	28	17.2	17.2	100.0
Total	**163**	**100.0**	**100.0**	

Table 4.6 indicates that the tenure distribution consists of 46.6% 0-5 years, 19.6 % 6-10 years, 12.3% 11-15 years, 4.3% 16-20 years and 17.2% 20 + years. The frequencies indicate that the majority of the respondents had 0-5 years (46.6%). Figure 4.6 below, illustrates this further.

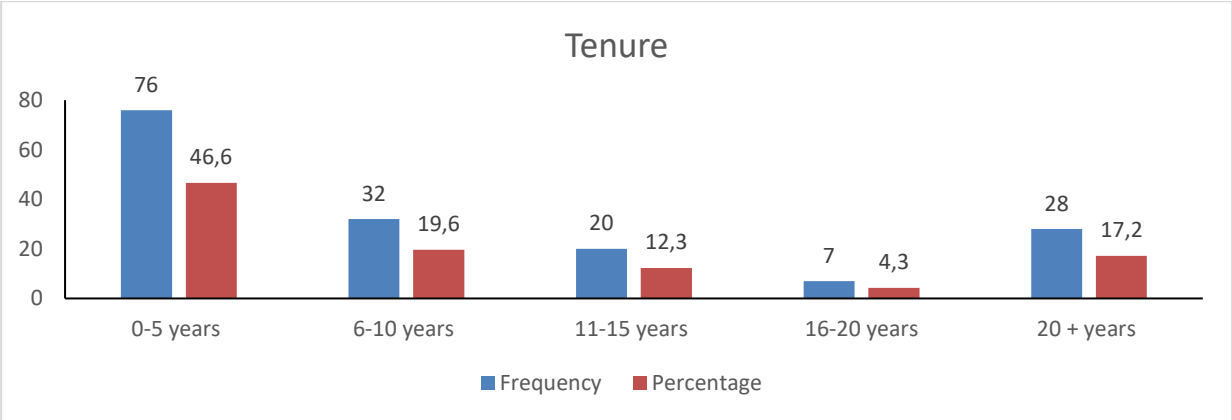

Figure 4.6 Sample distribution by tenure (N=163)

4.5.1.7 Composition of the sample by schools and department

This section presents data on schools and departments of the respondents.

Table 4.7 Schools and Department distribution of sample (N=163)

Category	Frequency	Percent	Valid percent	Cumulative percent
Medicine	94	57.7	57.7	57.7
Health Sciences	15	9.2	9.2	66.9
Oral Health	7	4.3	4.3	71.2
Science and Tech	5	3.1	3.1	74.2
Pharmacy	2	1.2	1.2	75.5
Finance	7	4.3	4.3	79.8
Human Resource	11	6.7	6.7	86.5
ICT	2	1.2	1.2	87.7
Marketing	3	1.8	1.8	89.6
CUTL	1	.6	.6	90.2
Library	1	.6	.6	90.8
Research	4	2.5	2.5	93.3
Administration	11	6.7	6.7	100.0
Total	**163**	**100.0**	**100.0**	

Table 4.7 indicates that the schools and departments distribution consists of of 57.7% School of Medicine, 9.2% Health Sciences, 4.3% Oral Health, 3.1% Science and Technology, 1.2% Pharmacy, 4.3% Finance, 6.7% Human resources, 1.2 % ICT, 1.8% Marketing and communications, 0.6% CUTL, 0.6% Library, 2.5% Research and 6.7% Administration. The frequencies show that the majority of the respondents was in School of Medicine (57.7%). Figure 4.7 below, illustrates this further.

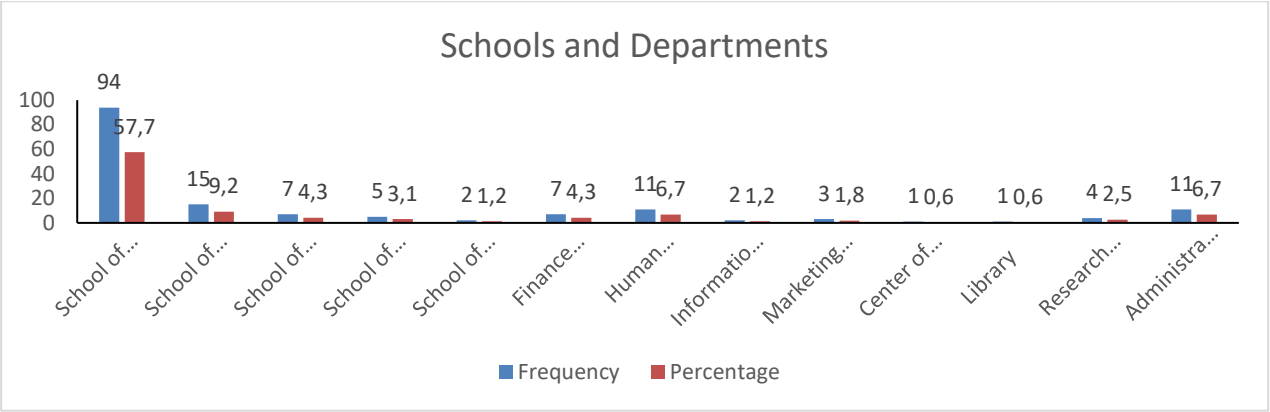

Figure 4.7 Sample distribution by schools and departments (N=163)

4.5.1.8 Composition of the sample by tenure in terms of their current position

This section discusses tenure in terms of their current position for the respondents.

Table 4.8 Tenure in their current position (N=163)

Category years of service	Frequency	Percent	Valid percent	Cumulative percent
1	21	12.9	12.9	12.9
2	29	17.8	17.8	30.7
3	16	9.8	9.8	40.5
4	7	4.3	4.3	44.8
5	17	10.4	10.4	55.2
6	11	6.7	6.7	62.0
7	9	5.5	5.5	67.5
8	4	**2.5**	2.5	69.9
9	5	3.1	3.1	73.0
10	14	8.6	8.6	81.6
11	4	**2.5**	2.5	84.0
12	2	1.2	1.2	85.3
13	4	**2.5**	2.5	87.7
14	1	0.6	0.6	88.3
15	4	**2.5**	2.5	90.8
18	1	0.6	0.6	91.4
20	2	1.2	1.2	92.6.
22	3	1.8	1.8	94.5
25	2	1.2	1.2	95.7
26	4	**2.5**	2.5	98.2
27	1	0.6	0.6	98.8
29	1	0.6	0.6	99.4
30	1	0.6	0.6	100.0
Total	**163**	**100.0**	**100.0**	

Table 4.8 indicates that the tenure distribution in their current position comprised of 12.9% in one year, 17.8% in two years, 9.8% in three years, 4.3% in four years, 10.4% in five years, 6.7% in six years, 5.5% in seven years, 2.5 % in (8, 11, 13, 15 and 26 years), 3.1% in nine years, 8.6% in ten years, 1.2% in (12, 20 and 25 years), 0.6% in (14, 18, 27, 29 and 30 years) and 1.8% in 22 years. The frequencies indicate that the majority of the respondents had (17.8%) in their current position.

4.5.1.9 Summary: Demographical profile of the sample

According to the demographical profile obtained the majority of respondents were females (73.6%) administrative officers (74.2%) between the ages of 31-40 years 46.6%. The majority of respondents had diploma (31.3%), were employed on peromnes level 12 (28.8%) with tenure between 0-5 years (46.6%). In addition, majority of the respondents were in school of medicine (57.7%) with tenure of one years (12.9%).

4.5.2 Measuring Instruments

A survey was useful for capturing facts, opinions, behaviour and attitudes. Hence, the study utilised a questionnaire as the main data collection instrument. The research method used consisted of self-administered surveys on the TNA process evaluation and TM system evaluation.

These sections were included in the TNA process, talent and TM practice survey.

- Section A, the biographical information was used on the administrative staff to fill their profile for the purpose of improving organisational efficiency.
- Section B, the TNA process evaluation was used to measure the perception towards the TNA process and practices of administrative staff. Questions contained in the self-administered surveys were in the form of close ended questions and using 5-point Likert scale (Annexure E). A self-administered survey consists 24 items used to measure perception of the TNA process evaluation.
- Section C, the TM system evaluation was used to measure the perception towards TM dimensions. Twenty-five dimensions of the TM system evaluation practices and consists of five points likert scale (1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; 5 = strongly agree). Comparing the scores for the practices of

the TM system evaluation and the perception of the TNA process evaluation, provides the greatest training needs. Also, the greater the difference in scores, the greater the training needs (Yousif et al., 2019). The questionnaire in this study was scored similarly to Yousif and friends' scoring. According to Bryman and Bell (2011), the test findings pertaining to the tool should reveal the general internal consistency reliability for 0.899. In addition, Walker (2010), extended the tool into computer-generated work designs, and the findings revealed internal consistency of 0.84. In this study, this was done in Chapter five.

The reliability of the instrument was estimated on scale items using the Statistical Package for Social Sciences (SPSS). This was done using the SPSS version 25.0, Cronbach's Alpha reliability statistics for the various part of the survey and the total Cronbach's Alpha reliability statistics were computed (IBM Corp, 2017). According to Sekaran (2000), Cronbach's Alpha value less than 0.70 is considered to be poor, but anything above it, is good and acceptable.

- A self-administered TM system evaluation survey measure was used to assess the perceived TM practices and the important of the TM practices of the institution for the administrative staff to predict the impact, effectiveness and the efficiency of the O-T-P framework that underpinned this study (Barkhuizen et al., 2015). The measure consisted of 25-item on 5-point Likert scale measures eight talent management practices, namely: management commitment, talent review process, workforce planning, staffing, talent acquisition, talent development, performance management and talent retention. The questionnaire was developed by the researcher in line with Barkhuizen et al. (2014) questionnaire on their study about TM on administrative staff (Barkhuizen et al., 2014; Barkhuizen et al., 2015).

4.5.3 Research procedures

The ethical clearance and permission to conduct the study was obtained from the Ethics committee of the Human Resource Department (Annexure A) and the participating organisation (HSU) (Annexure C). Post receiving ethical clearance, an electronic mail explaining the aim of the study and the survey process (Annexure B) was sent to a gatekeeper (Marketing and Communication Department). According to McFadyen and Rankin (2016), a gatekeeper is a person who limits or controls the access of researchers

to participants. In addition, the two indicate that gatekeepers ensure that researchers are granted permission to access prospective respondents and sites for their research projects. Hence, the ethical clearance and permission to conduct this study was sent to the Marketing and Communication Department for consideration.

Employing a self-administered survey allows respondents to participate on structured and standardised lists of questions without the interference of the researcher, which could result into bias. Because of this, the questionnaire of the study was copied into Google forms (Annexure E), Google forms is a network survey that records responses in a folder or database (Bryman & Bell, 2011). This online survey form was utilised to allow respondents convenient access to the questionnaire and to limit possible bias that may be occur because of the presence of the researcher. Concurrently, a link to the survey and permission form (Annexure D) was sent to the gatekeeper through an email, and the gatekeeper administered the survey of the study on behalf of the researcher.

4.5.4 Data analysis

Statistical Package for Social Sciences (SPSS) version 25.0 (IBM Corp, 2017) was used to analyse the data for this study. The advantages of using SPSS were that the program provided many ways in which to manipulate quantitative data, and it also contained a wide variety of statistical measures. In the first stage, the exploratory factor analysis, the second stage was the descriptive statistics, followed by the correlation and lastly the test of significant differences.

4.5.4.1 Exploratory factor analysis

The EFA of TNAM and TM was used. Factor analysis is a form of exploratory multivariate analysis that was used to reduce the number of variables in the results and to detect relationships among variables (Field, 2018). The variables involved in the factor analysis of TNAM and TM were not normally distributed. The goal of the analysis was to identify TNAM and TM factors, which underlie the variables. Therefore, the Bartlett test was used to show the level of significance of the correlation construction of a construct.

Communality (which is the opposite of uniqueness) is the proportion of the variable that is accounted for by all the factors of TNA (feedback, organisational analysis, task

significance, task analysis and individual analysis) and TM factors (Talent development, talent selection, talent utilisation and talent retention). A very low communality indicates that a variable may not belong to any of the factors. Furthermore, the scree plot was useful in determining four factors to retain. The component matrix table was carried out for five TNA factors of the test scores load onto the first factor, while all five tend not to load heavily on the second factor. The purpose of rotating the factors was to get the variables to load either very high or very low on each factor. A rotated factor matrix of TNAM with five factors and TM with four factors for varimax rotation and a plot of the eigenvalues was used. For this reason, four factors of TNAM were retained and three factors of TM were also retained.

4.5.4.2 Reliability

Reliability refers to the extent to which a data collection technique will retain the consistent, same results (Bryman & Bell, 2011). According to Jackson (2011), this means that different researchers should get similar results if they were to redo the similar study. In this study, the external reliability was guaranteed in establishing measures of internal consistency (Creswell, 2014). Internal reliability or consistency was guaranteed by means of the Cronbach's alpha coefficient. This was based on inter-item correlations which provide a sign of the average correlation between all items that make up the scale (Bryman & Bell 2011; Jackson, 2011). A value above 0.8 was considered to be adequate (Bryman & Bell, 2011).

4.5.4.3 Descriptive statistics

Following a model by Welman, Kruger and Mitchell (2005); sub-dimensions' statistics was used to present a description and a summary of the data sets. The scale construct of the descriptive information consists of means, standard deviations (SD) and graphical plots. The mean scores represent the average ratings of 163 administrative staff per item on a 5-point scale. The scales items range from five, which indicates strongly agree statements to one, indicates a strongly disagree statement. While the SD indicates the distribution of scores. These were used to indicate the distribution of scores with regard to skewness and kurtosis (β_2- 3). The skewness value will shows the symmetry of the distribution, whereas β_2- 3 provides information regarding the shape/peakedness of distribution, thus indicating in this study that the sample data were taken from a normally

distributed population (DeCarlo, 1997). Finally, the descriptive information of the TNA_4 and TM were presented in Chapter five.

4.5.4.4 Correlations

Correlation analysis was used to examine the extent to which two complete variables TM and their sub-dimensions are linked to each other (Kumar, 2014). Leedy and Ormrod (2013), state that a correlation exists when one variable rises (training) and another variable (TM) rises or drops in a, to some extent, foreseeable fashion. This includes elementary statistical measures for measuring bivariate relationships (Maylor & Blackmon, 2005:313). Therefore, the hypothesis is used to explain the variance in the dependent variables so as to foresee the management of talent (Kumar, 2014). The research findings that relate to bivariate relationships are based on restricted analysis since a link between two variables has been explored without manipulating for another variable (Bryman et al., 2011). Consequently, bivariate analysis was conducted to construct and reinforce the credibility of the research results.

4.5.4.5 Test for significant mean differences

Mann-Whitney test was used for test of the significance in this study. This was based on the null hypothesis which states that there is no relationship between the TNA process and TM practices. Therefore, the relationship between the TNA process and TM practice is presented in Chapter five. In a process of testing hypotheses in research, possible errors may occur. On the one hand, the error may occur when the null hypothesis is rejected even though it is in fact true; on the other hand, the error that may occur is when the null hypothesis is accepted even when it is in fact wrong or false. These types of errors can be circumvented by increasing the sample size or by adjusting the significant level to pay off for slight samples (Pallant, 2007).

4.6 ETHICAL CONSIDERATIONS

The University of South Africa's research ethics policy (UNISA Ethical Policy, 2012) was employed to ensure ethical conduct is observed through the duration of the study, and to prevent possible harm to respondents at all times. In order to fulfil the institution’s ethical provisions, respondents were informed that their participation in the study was voluntary,

and that their right to privacy will be observed; hence, there was not any form of payment and confidentiality was maintained at all times. The researcher obtained informed consent from the respondents, and the consent form explained the nature and the objectives of the study.

An explanation of the rewards of the research, including those for the respondents and the entire HSU were outlined. Upon completion of the study, a summary of the results would be presented to all interested stakeholders including the respondents. Although the research results were unfavorable, the researcher described and analysed the statistics fairly irrespective of pressure and prior anticipations. In order to ensure that moral principles are adhered to, the researcher upheld the following ten general ethics principles (UNISA Ethical Policy, 2012):

- Essentiality and Relevance: before undertaking research, there was sufficient thought of the current literature on the topic of the study. Taking into consideration the inadequacy of resources in South Africa, it was revealed that the research is necessary to the field of study.
- Maximisation of public Interest and of social justice: the research was carried out for the benefit of the public especially persons in the area of HRM and HRD. All efforts made in this study were made in an acceptable manner and form, as well as at a suitable time; and the findings of the study indicate that this will add value into social justice related issues.
- Competence, ability and commitment to research: the researcher acted in a professional manner throughout the study; and the conduct of the researcher demonstrated clear evidence of competence and commitment in developing innovative strategies in the area of the study.
- Respect for and protection of the rights and interests of respondents and Institutions: the researcher did not expose respondents to procedures that were not directly linked to the study, and the pursuit of knowledge did not disregard the rights of the respondents.
- Informed and non-coerced consent: all respondents (administrative staff) were informed about the aims and objectives of the study, and that their participation was only voluntary. Hence, their participation was completely autonomous, and consent was granted by them to participate in the study.

- Respect for cultural differences: The researcher treated all respondents with respect and as unique human beings who form part of a community system.
- Justice, fairness and objectivity: This study employed a fair strategy in terms of data sampling including the selection of respondents.
- Integrity, transparency and accountability: The study was conducted in an honest, fair and transparent manner. All persons who made their respective contributions in the study have been properly acknowledged.
- Risk minimisation: In order to minimise risks, all possible harm to respondents was assessed and relevant strategies to ensure the safety of respondents were put in place prior to proceeding with the research.
- Non-exploitation: Fair treatment of respondents and other parties in the research project was safeguarded. This means that both the respondents and the research including the community (administrative staff) were not exploited in any form.

4.7 FORMULATION OF THE HYPOTHESES

The table below presents the research hypotheses, which were formulated to achieve the objectives of the study in Table 4.9.

Table 4.9 Research hypotheses

Research objective 1		
Aim	**Research hypothesis**	**Statistical procedure**
To investigate the link or relationship between the perception of TNA process and TM practices within the HSU environment.	H_{o1}: There is no statistically significant relationship between the TNA process and TM practices in the HSU.	Correlation analysis
Research objective 2		
Aim	**Research hypothesis**	**Statistical procedure**
To measure the perceptions of administrative staff and determine their needs in terms of the TNA process and the TM practices at the HSU.	H_{a3}: Administrative staff at HSU perceive that the current TNA process and TM practices are not adequate.	Mann-Whitney test
Research objective 3		
Aim	**Research hypothesis**	**Statistical procedure**
To evaluate the differences in the TNA process and the TM practices in terms to certain	H_{o2}: There is no significant differences between the demographic variables	Mann-Whitney test

demographic variables (age, gender, job title, educational level, job level and tenure).	responses with regard to their perceptions on the TNA process and the TM practices.	

4.8 CHAPTER SUMMARY

This chapter discussed the philosophy of the study including the research design and the approach applied to achieve the research objectives. It provided information on the research plan and methodology that was applied to conduct the study. The chapter went on to explore important principles of Ethical Considerations that would assist in safeguarding against possible research immoralities. Finally, the chapter presented a framework of the empirical research. The discussions in this chapter serve as a transition to Chapter five, which will examine the results of the study.

CHAPTER 5

RESEARCH RESULTS

5.1 INTRODUCTION

This chapter examines the results of the study. The primary aim of this study was to investigate whether the TNA process and TM practice are linked within a HSU environment. Among other aspects, the chapter examines data analysis including the data analysed using the exploratory factor analysis, the Cronbach alpha coefficients, descriptive statistics and the correlations analysis. Lastly, the chapter explores the Mann-Whitney test that was performed during the data analysis process.

5.2 VALIDITY

Validity is a significant concept in quantitative research studies. As a result, this section discusses the validity of the research instruments employed during the data collection and into the data analysis state. The process of ensuring validity involved piloting rigorous tests in order to determine whether the scale dimension reflected the construct purported in the primary scales (Bryman et al., 2011). The procedure for measuring the validity of constructs consists of two levels namely, content validity measures and exploratory factor analysis.

5.2.1 Content validity measures

Existing standardised instruments during the piloting process were revised for content validity and reliability. The questions were loaded on Google forms and pre-tested. The formulated link to the survey was then e-mailed to the statistician and the study supervisors for expert review and, in respect, approval from the supervisors. The construction of the survey was received and was deemed to be suitable for assessing administrative staff's perceptions. Post approval from the supervisors, the survey was e-mailed to a sample of 20 administrative staff to establish its relevance for the nature of data to be collected. Only 18 administrative staff replied. A telephonic follow-up was conducted to check for possible remarks that would assist in improving the survey in order

to suit the research's objectives; however, there were no suggestions. The administrative staff was satisfied with the construction of the questions as they were observed to be a significant measure of their perceptions and affective tones. The questions were deemed unambiguous and relevant for the constructs investigated. There were no additional changes done on the questionnaire.

5.2.2 Exploratory factor analysis

In research, utilising a sufficient sample guarantees reliability when conducting EFA. The findings of the Kaiser-Meyer-Olkin (KMO) test and the Bartlett test for sphericity are described in this section. While the KMO test is a statistic that indicates the proportion of variance in the variables that might be caused by underlying factors, Bartlett's test of sphericity tests the hypothesis (Chan & Idris, 2017). The rationale for using these tests is that they indicate the variables relatedness and the suitability for TM and TNA in this study (see sections 5.7.1 and 5.7.1.2).

Kaiser (1974) supports that values less than 0.5 are hardly satisfactory, and where values are bigger than >0.5, the researcher needs to think about accumulating additional data. The values between 0.5 and 0.7 are viewed as average, values between 0.7 and 0.8 are considered as acceptable, whereas values between 0.8 and 0.9 are fine, and values above 0.9 are excellent. The Bartlett test shows the level of significance of the correlation construction of a construct. For the aim of this study, the satisfactory value was bigger than >0.7(Chan & Idris, 2017; Field, 2018).

The KMO statistic was found to be different between 0 and 1, indicating patterns of correlations. Table 5.1 presents the findings of the KMO test.

Table 5.1 KMO and Bartlett's test

Kaiser-Meyer-Olkin measure of sampling adequacy		0.886
Bartlett's test of sphericity	Approx.chi-square	2414.337
	df	276
	Sig	.000

Table 5.1 indicates the KMO values for the TNAM construct, and it further presents a value of 0.886. This value is bigger than 0.8; therefore, it validates that the sample size is acceptable for factor analysis. The p-value of the Bartlett test is less than 0.05 significance, this indicates that the correlation construction of the concept is strong enough to conduct the factor analysis (Field, 2018).

5.2.2.1 EFA for training needs analysis model (TNAM)

In the following section, factor analysis is reported based on the grouping of item statements, where factor weightings indicate common variance (communalities) and/correlations of items. Communality values range between one (1), which is the maximum value, and zero (0), which is the value depicting that variables share no variation with some other variables. These values are linked with eigenvalues, indicating the substantive significance of variates. The eigenvalues are shown on a scree plot and the cut-off point is at the inflection point where factors are chosen. Factors with loadings of below 0.3 were not retained in the analysis. Table 5.1 provides the KMO values for the TNAM construct and indicates a value of 0.886. This value is bigger than 0.8 and it validates that the sample size is adequate for factor analysis. The p-value of the Bartlett test is below 0.05 significance, this means that the correlation construction of the construct is strong enough to conduct the factor analysis (Field, 2018). The following Table (5.2) presents the commonalities for TNAM.

Table 5.2 Communalities for the training needs analysis model

Communalities	Initial	Extraction
Q1b Training needs analysis at the HSU is linked to strategic objectives of the university.	1.000	0.744
Q2b Training needs analysis at the HSU involves the vision and mission of the university.	1.000	0.706
Q3b Training needs analysis at HSU involves the funds.	1.000	0.505
Q4b Training is effective if the training outcome matches the university goals.	1.000	0.624
Q5b Training needs analysis information is used to finalise a training plan for the university.	1.000	0.705
Q6b The training needs analysis at the HSU works with performance management system.	1.000	0.601
Q7b The Strategic Human Resource plan is followed at the HSU.	1.000	0.659
Q8b Training needs analysis is part of the strategic Human Resource Development processes at HSU.	1.000	0.655
Q9b HSU's training needs analysis process supports decision about when training is the best option to improve individual performance.	1.000	0.699

Communalities	Initial	Extraction
Q10b Training opportunities are available for employees to improve their skills with regard to new technology.	1.000	0.778
Q11b Re-training opportunities are available for employees to improve their skills with regard to new technology.	1.000	0.750
Q12b Top management in the HSU encourages staff participation when conducting training needs.	1.000	0.750
Q13b There is no commitment by top management to carry out training needs analysis.	1.000	0.510
Q14b My departments support me by providing training and development related to my work.	1.000	0.680
Q15b HSU initiate training and development opportunities for me.	1.000	0.740
Q16b Training needs analysis is not conducted continuously.	1.000	0.753
Q17b Training needs analysis is not effectively implemented at HSU.	1.000	0.728
Q18b Training needs are not reviewed annually.	1.000	0.672
Q19b Training needs analysis identifies the type of training that is needed to fill the gap in my job needs.	1.000	0.686
Q20b Training needs analysis process effectively identifies who should be trained.	1.000	0.759
Q21b Training needs analysis process effectively identifies what content should be taught.	1.000	0.759
Q22b The training needs analysis allows the organisation to identify specific training needs that employees may have with regard to particular skills.	1.000	0.732
Q23b Training needs analysis is the right step to design an applicable, cost-effective training programme.	1.000	0.611
Q24b Training needs analysis at the HSU involves only a certain group of employees.	1.000	0.668

Extraction method: Principal Axis Factoring

Table 5.2 outlines the extraction of factors for the TNAM. A principal axis factor analysis with varimax was conducted to assess the underlying structure of 24 questions of the TNAM. Each question has a loading from each factor. Factors are allowed to correlate, and the extraction is based on the communalities ranging from 0 and 1. Table 5.3 presents the total variance explained on TNAM.

Table 5.3 Total variance explained on TNAM

Com-ponent	Initial Eigenvalues			Extraction sum of squared			Rotated sum of squared		
	Total	% of variance	Cumulative%	Total	% of variance	Cumulative %	Total	% of variance	Cumulative%
1	8.910	37.123	37.123	8.910	37.123	37.123	4.583	19.096	19.096
2	3.060	12.750	49.874	3.060	12.750	49.874	4.198	17.492	36.589
3	1.713	7.139	57.013	1.713	7.139	57.013	3.519	14.664	51.252
4	1.582	6.591	63.604	1.582	6.591	63.604	2.759	11.494	62.747
5	1.210	5.041	68.645	1.210	5.041	68.645	1.416	5.898	68.645

Table 5.3 indicates the total variance with regard to five factors on initial eigenvalues, extraction sum of squared and rotated sum squared of TNAM. This is shown on the scree plot presented in Figure 5.1.

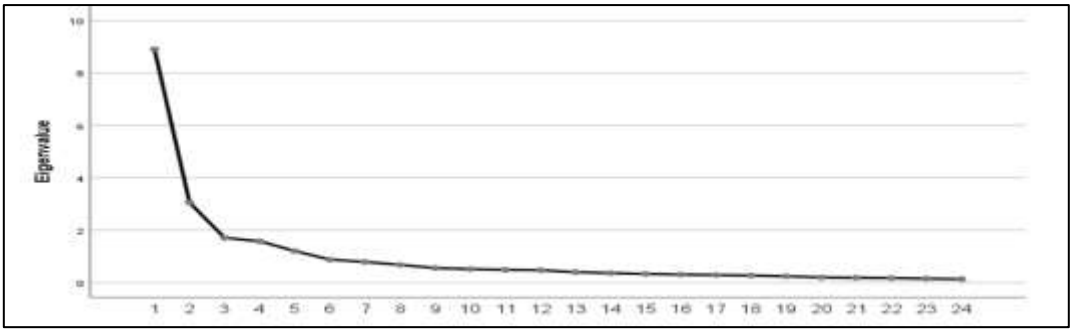

Figure 5.1 Scree plot for the training needs analysis model

An initial analysis was carried out to get eigenvalues for each part of the data. Eight components had eigenvalues in excess of Kaiser's criterion of 1 and, in combination, the values explained 68.64% of the variance. The scree plot indicated inflexion that could defend retentive five factors. The scree plot line starts to get straight up after the six components where the eigenvalue is >1. Nonetheless, this was slightly ambiguous, and a re-run was carried out for harder testing. Figure 5.2 presents the findings of the re-run on the factor plot.

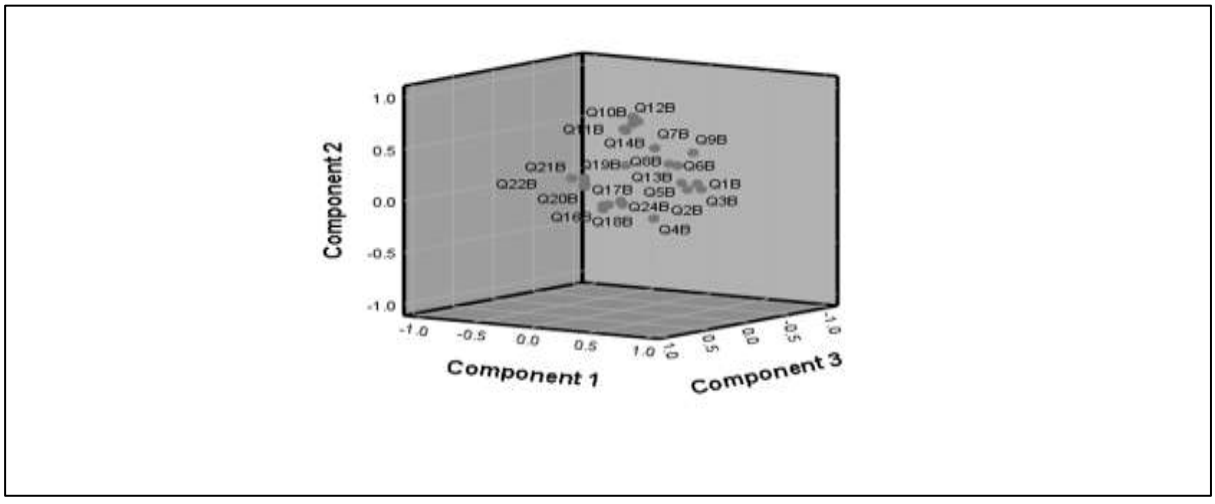

Figure 5.2 Factor plot for the training needs analysis model

The factor plot in Figure 5.2 presents a re-run that was conducted on varimax with Kaiser normalisation. Questions with weightings of above 0.3 are considered to be significant, while weightings of 0.4 and above are considered to be more significant (Chan & Idris,

2017; Field 2018). Communalities of less than <0. 30 for questions are considered to be low and were then not considered. According to the analysis, questions Q15b and Q23b of the TNAM had low communalities and were excluded from the list of questions. In the re-run of the analysis, the factor weighting structure was reconsidered. The new factor structures are outlined below on Table 5.4.

Table 5.4 Factor analysis for the training needs analysis

Rotated Factor Matrix					
	Factor				
	1	2	3	4	5
	Feedback	**Organisational analysis**	**Task significance**	**Task analysis**	**Person/ individual analysis**
Q1b. Training needs analysis at the Health Sciences University is linked to strategic objectives of the university.	0.877				
Q2b. Training Needs Analysis at the Health Sciences University involves the vision and mission of the university.	0.769				
Q3b. Training Needs Analysis information is used to finalise a training plan for the university.	0.700				
Q5b.Training Needs Analysis at Health Sciences University involves the funds.	0.666				
Q9b Health Sciences University's Training Needs Analysis process supports decision about when training is the best option to improve individual performance.	0.640	0.483			
Q8b. Training Needs Analysis is part of the Strategic Human Resource Development processes at Health Sciences University.	0.621	0.413			
Q6b. The Training Needs Analysis at the HSU works with the performance management system.	0.618	0.380			
Q4b. Training is effective if the training outcomes match with the university goals.	0.613		0.466		

Rotated Factor Matrix					
	Factor				
	1	2	3	4	5
	Feedback	Organisational analysis	Task significance	Task analysis	Person/ individual analysis
Q15b. Health Sciences University initiate training and development opportunities for me.		0.809			
Q12b. Top management in the Health Sciences University encourages staff participation when conducting training needs.		0.776			
Q10b. Training opportunities are available for employees to improve their skills with regard to new technology.		0.750			0.303
Q11b.Re-training opportunities are available for employees to improve their skills with regard to new technology.		0.713			0.308
Q14b. My department supports me by providing training and development related to my work.		0.674			0.374
Q7b.The Strategic Human Resource Development plan is followed at Health Science University.	0.492	0.552			
Q21b. The Training Needs Analysis process effectively identifies what content should be taught.			0.798		
Q20b. The Training Needs Analysis process effectively identifies who should be trained.			0.788		
Q22b. The Training Needs Analysis allows the organisation to identify specific training needs that employees may have with regard to a particular skill.			0.731		
Q19b. The Training Needs Analysis identifies the type of training that is needed to fill the gap in my job needs.			0.712		
Q23b. Training Needs Analysis is the right step to			0.554		0.475

Rotated Factor Matrix					
	Factor				
	1	2	3	4	5
	Feedback	Organisational analysis	Task significance	Task analysis	Person/ individual analysis
design an applicable, cost-effective training programme.					
Q17b. Training Needs Analysis is not effectively implemented at Health Sciences University.				0.847	
Q16b. Training Needs Analysis is not conducted continuously.				0.840	
Q18b. Training needs are not reviewed annually.				0.804	
Q13b. There is no commitment by top management to carry out Training Needs Analysis.				0.592	
Q24b. Training Needs Analysis at the Health Sciences University involves only certain group of employees.				0.344	0.720

Extraction method: Principal Axis Factoring, Rotation Method: Varimax with Kaiser normalisation

Table 5.4 outlines the new factor structure. The questions were intended to index six dimensions namely, person/individual analysis, operational analysis, organisational analysis, task identity, task significance, autonomy and feedback. Considering the adequate sample size and the convergence of the factor cycle, a newly suggested structure was attained. The items were grouped so that the questions that have the highest weightings from factor one are listed in sequence; this is in a relatively top-down approach – from the one with the highest to the lowest factor load (Field, 2018).

Table 5.4 displays factor weightings after the cycles. Simply five factors were extracted. From the results, feedback emerged as a very important and strong factor because it is loaded with high values on eight questions (Q1b, Q2b, Q3b, Q4b, Q5b, Q6b, Q8b and Q9b). Based on the values, although Q9b, Q8b and Q6b loaded on both factor 1 and 2, the values on feedback (Factor 1) were higher than those on factor 2 (Q9b 0.640 > 0.483; Q8b 0.621 > 0.413 and Q6b 0.618 > 0.380). For the same reason, Question 7b as was discarded for factor 1, because the loading was lower than the 0.552 loadings on factor 2 (Knafl & Grey, 2007; Field, 2018; Velicer, Eaton & Fava 2000).

Therefore, factor 1 makes a bigger contribution than factor 2 with eight questions. Organisational analysis has a strong factor loaded high with six questions (Q15b, Q12b, Q10b, Q11b, Q14b and Q7b). Based on the values, Q10b, Q11b, and Q14b under individual analyses were discarded and added to factor 2 of organisational analysis. Factor 3, task significance starts at Q21b, Q20b, Q22b, Q19 and Q23. Based on the values, Q23 under individual analysis was discarded and fall under factor 3 of task significance. Factor 4, task analysis starts at Q17b, Q16b, Q18b and Q13b. Based on the low value of Q24, Q24 was discarded and added under factor 5. However, factor 5 was discarded due to only one question with a high value and it is not strong enough to retain it (Knafl & Grey, 2007; Field, 2018; Velicer et al., 2000). During the factor analysis output, that is, items creating the dimension of TNA, data was divided into three subdivisions of factors namely, two, four and five. The splitting of data into three subsets provides cross-validation, which is an incomplete form of validity. As a result, one subset had to be cast-off (Knafl & Grey, 2007).

The subset of person/individual analysis in factor 5 had high factor scores and as well comprised of only five items. Subsequently, factor weightings may increase validity issues scores to the digital office work setting under study (Culbertson, 2013). Additionally, preconceptions about factor 5 may require modification based on the reverse-coded indicator items related to the disjoint sets. Factor 5 has been discarded because it has only one question with a high loading instead of three questions and above, hence, it is discarded (Knafl & Grey, 2007; Field, 2018). As a rule of thumb, 0.7 or higher factor loading represents that the factor extracts sufficient variance from that of variable (Velicer et al., 2000). As recommended above, the subsets for factor 4 were left out (Knafl & Grey, 2007).

Subsequent to the cross-validation, the four-factor (TNA_4) were retained as the new structures in the final analysis. The items that cluster on factor 1 propose that the dimension represent feedback, factor 2 organisational analysis, factor 3 task significance and factor 4 task analysis. All these four-factor TNA have the strong factor and largish correlations, hence, they are all retained. In other words, the latent constructs represented by the factors are related. The four-factors of TNA are valid and reliable to continue with the rest of the final analysis. Table 5.5 represents the final four new factors.

Table 5.5 Four new factors of training needs analysis

Five-factor training needs analysis (TNA–5) old factors	Four-factor training needs analysis (TNA–4) new factors
• Factor 1 feedback • Factor 2 organisational analysis • Factor 3 task significance • Factor 4 task analysis • Factor 5 individual analysis	• Factor 1 feedback • Factor 2 organisational analysis, • Factor 3 task significance • Factor 4 task analysis

Task identity and autonomy were repressed in the final output. Complementary, previous studies investigating TNAM found that TNAM in an organisational context and financial sector did not support the dimensions of the TNAM (Cleave, 1993; Ferdous & Razzak, 2012; Ferreira & Abbad, 2013; Koech & Nzulwa, 2017; Mazhisham et al., 2018; Muma et al., 2014). At the same time, the studies tested the model in work settings and some associations including autonomy were not predicted in the model. Furthermore, a study in the public service and corporate sector has showed support for individual analysis and seriously neglected task and organisational analysis (Balisi, 2014; Brinia & Villigennis, 2013; Shenrazi, 2011). The repression of task identity and autonomy in the factor extraction proposes that parameters of the TNAM should be developed in order to complement the HSU (Jamil & Som, 2007; Oldham & Hackman, 2010; Wood, Van Veldhoven, Croon & De Menezes, 2012).

These results were expected because only organisational and task analysis was applied, however, person/individual analysis was neglected. Therefore, it is evident that multilevel analysis and modelling is still a neglected technique when it comes to TNA process (Ferreira & Abbad, 2013). Furthermore, all three levels of needs analysis above are related and the training needs should be identified at all levels (Mazhisham et al, 2018).

5.4.2.2 Exploratory factor analysis for talent management

The following Table 5.6 presents the results of the tests on the EFA for TM.

Table 5.6 KMO for talent management

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.912
Bartlett's Test of Sphericity	Approx. Chi-Square	3501.669

	Df	300
	Sig	.000

Table 5.6 outlines the KMO values for the TM construct showing a value of 0.912. This value is greater than 0.9, and it authenticates that the sample size is adequate for factor analysis. The p-value of the Bartlett test is below 0.05 significance; this means that the correlation construction of the concept is strong enough to conduct the factor analysis (Field, 2018). The following Table 5.7 presents the communalities for TM.

Table 5.7 Communalities of talent management

Communalities	Initial	Extraction
Q1c Health Sciences University identifies talent by using university's present capabilities and potential to meet current and future needs.	1.000	0.726
Q2c The Health Sciences University measures current performance of employees as part of the Talent Management system.	1.000	0.746
Q3c Health Sciences University uses work performance to identifies employees who are talented.	1.000	0.765
Q4cTalent planning at Health Sciences University integrates the personal development goals of employees with the university's strategy.	1.000	0.826
Q5c The Health Sciences University's recruitment strategy is aligned to the talent management strategy.	1.000	0.726
Q6c Recruitment plan at the Health Sciences University is the key business goals to determine the skills and talent required to achieve strategic objectives.	1.000	0.672
Q7c Talent management is regarded as a strategy to identify, develop and retain talent in the organisation.	1.000	0.567
Q8c The remuneration strategy at Health Sciences University is aligned to the university strategy.	1.000	0.669
Q9cThe rewards and recognition system at Health Sciences University is aligned to the university strategy.	1.000	0.663
Q10c Adequate rewards and recognition systems are very important to attract talent at the Health Sciences University.	1.000	0.875
Q11c Adequate reward and recognition is very important to retain talent at the Health Sciences University.	1.000	0.885
Q12c Performance management system available at the Health Sciences University.	1.000	0.688
Q13c Performance management system is aligned to the Health Sciences University's strategy.	1.000	0.676
Q14c My line manager is able to completely identify talent.	1.000	0.652
Q15c My line manager provides the resources I need to carry out my job.	1.000	0.648
Q16c My line manager organises the required training for me to be able to carry out my job.	1.000	0.759
Q17c I experience a sense of belonging at the Health Sciences University.	1.000	0.606
Q18c I support Health Sciences University's vision.	1.000	0.625
Q19c I am committed to do my job.	1.000	0.642
Q20c I am satisfied that I have adequate skills to carry out my job.	1.000	0.614
Q21c I am satisfied with my talent as anticipated by the human resource policies.	1.000	0.568
Q22c I am satisfied with the opportunities to show off my talent.	1.000	0.632

Communalities	Initial	Extraction
Q23c The culture of the Health Sciences University makes me want to continue working for the university.	1.000	0.692
Q24c The Health Sciences University culture assist employees to feel linked to their institution and job.	1.000	0.721
Q25c Talent management processes at the Health Sciences University support successful talent management.	1.000	0.734

Table 5.7 indicates the extraction of factors for TM. A principal axis factor analysis on varimax was performed to measure or assess the fundamental structure of 25 questions of the TM. Each question has a loading from each factor. Factors are allowed to correlate, and the extraction is based on the communalities ranging from 0 and 1. Table 5.8 presents the total variance explained on TM.

Table 5.8 Total variance explained on talent management

Com-ponents	Initial Eigen-values			Extracted squared			Rotated squared		
	Total	% of variance	Cumulative%	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
1	12.255	49.019	49.019	12.255	49.019	49.019	7.719	30.878	30.878
2	2.273	9.092	58.112	2.273	9.092	58.112	4.812	19.250	50.128
3	1.704	6.815	64.926	1.704	1.704	64.926	2.923	11.692	61.819
4	1.145	4.580	69.507	1.145	1.145	69.507	1.922	7.687	69.507

Table 5.8 indicates the total variance with regard to four factors on initial eigenvalues, extraction sum of squared and rotated sum squared of TM. This is presented on the scree plot in Figure 5.3.

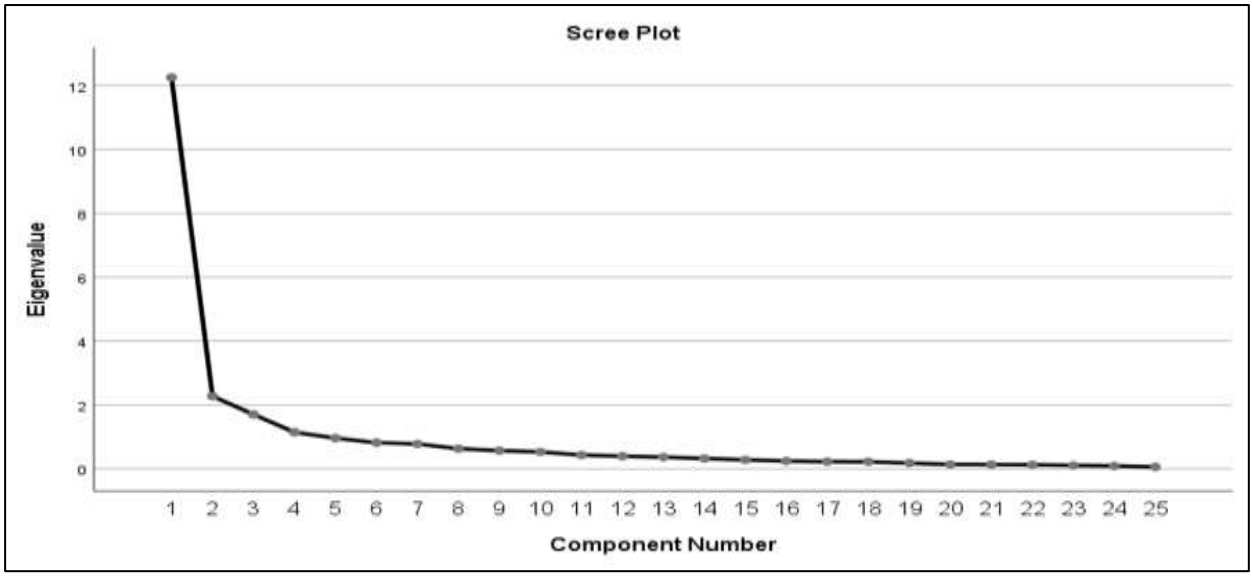

Figure 5.3 Scree plot for the talent management

An initial analysis was carried out to get eigenvalues for each component of the data. Twelve components had eigenvalues in excess of Kaiser's criterion of 1 and, in combination, the values clarified 69.51% of the variance. The scree plot indicated inflexion that could defend retentive five factors. The scree plot line starts to be straight up after the fourth component where the eigenvalue is >1. However, this was little ambiguous, and a re-run was done for further hard analysis. Figure 5.4 represents the findings for the re-run on the factor plot below.

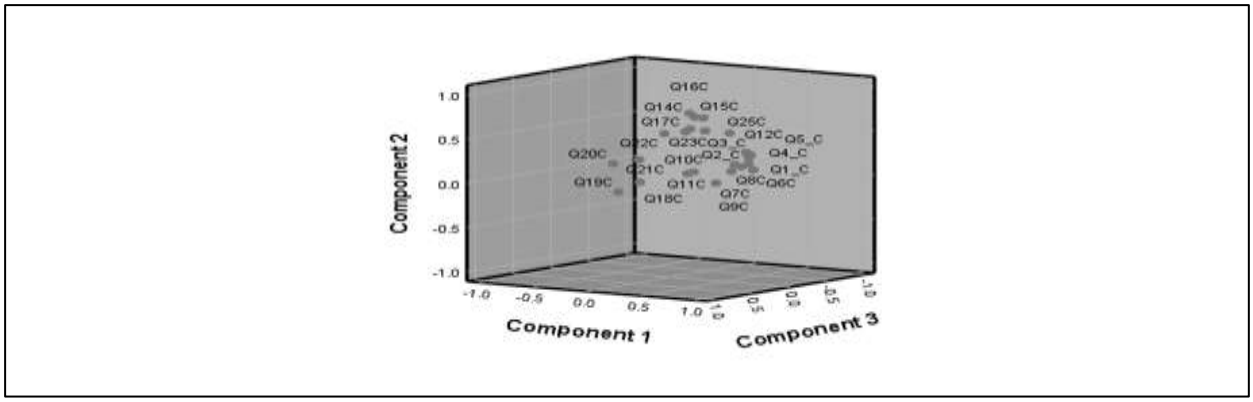

Figure 5.4 Factor plot for talent management

Figure 5.4 presents a re-run that was conducted on varimax with Kaiser normalisation. Questions with weightings of above 0.3 are considered to be significant, while weightings of 0.4 and above are considered to be significant (Bryman & Bell, 2011; Courtney & Gordon, 2013; Kumar, 2014). Communalities of lesser than <0. 30 for questions are reconsidered to be low and were therefore not considered.

According to the analysis, questions Q13c and Q24c of the TM had low communalities and were excluded from the list of questions. In the re-run of the analysis, the factor weighting structure was reconsidered. The new factor structures are outlined below (Table 5.9).

Table 5.9 Factor analysis of the talent management

Rotated Factor Matrix				
	Factor			
	1	2	3	4
	Talent development	**Talent selection**	**Talent utilisation**	**Talent retention**
Q1c. Health Sciences University identifies talent by using university's present capabilities and potential to meet current and future needs.	0.819			
Q4c. Talent planning at Health Sciences University integrates the personal development goals of employees with the university's strategy.	0.802	0.364		
Q5c. The Health Sciences University's recruitment strategy is aligned to the talent management strategy.	0.792			
Q3c. Health Sciences University uses work performance to identifies employees who are talented.	0.780	0.361		
Q2c. The Health Sciences University measures current performance of employees as part of the Talent Management system.	0.763	0.381		
Q6c. Recruitment plan at the Health Sciences University is the key business goal to determine the skills and talent required to achieve strategic objectives.	0.753			
Q8c. The remuneration strategy at Health Sciences University is aligned to the university strategy.	0.744			
Q13c. Performance management system is aligned to the Health Sciences University's strategy.	0.740	0.326		
Q9c. The rewards and recognition system at Health Sciences University is aligned to the university strategy.	0.735			
Q12c. Performance management system is available at the Health Sciences University.	0.727	0.382		
Q7c. Talent management is regarded as a strategy to identify, develop and retain talent in the organisation.	0.624			
Q25c. Talent management processes at the Health Sciences University support successful talent management.	0.608	0.596		

Rotated Factor Matrix				
	Factor			
	1	2	3	4
	Talent development	**Talent selection**	**Talent utilisation**	**Talent retention**
Q16c. My line manager organises the required training for me to be able to carry out my job.		0.800		
Q14c. My line manager is able to completely identify talent.		0.741		
Q15c. My line manager provides the resources I need to carry out my job.	0.314	0.728		
Q23c. The culture of the Health Sciences University makes me want to continue working for the university.	0.401	0.655	0.317	
Q24c. The Health Sciences University culture assist employees to feel linked to their institution and job.	0.501	0.634		
Q17c. I experience a sense of belonging at the Health Sciences University.	0.356	0.616	0.314	
Q22c. I am satisfied with the opportunities to show off my talent.		0.604	0.440	
Q19c. I am committed to do my job.			0.797	
Q18c. I support Health Sciences University's vision for the university.			0.740	
Q20c. I am satisfied that I have adequate skills to carry out my job.			0.731	
Q21c. I am satisfied with my talent as anticipated by the Human resource policies.		0.329	0.649	
Q11c. Adequate reward and recognition is very important to retain talent at the Health Sciences University.				0.880
Q10c. Adequate rewards and recognition system is very important to attract talent at the Health Sciences University.				0.879

Extraction Method: Principal Axis Factoring. Rotation Method: Varimax with Kaiser normalisation

Considering the adequate sample size and the convergence of the scree plot, a rotated factor matrix was attained. Table 5.9 indicate factor weightings after cycle. The questions were designed to index four dimensions: Talent Development (TD), Talent Selection (TS), Talent Utilization (UT) and Talent Retention (TR). Factor 1, TD, is very important because it has 13 questions loaded highly. These are Q1c, Q4c, Q5c, Q3c, Q2c, Q6c, Q8c, Q13c, Q9c, Q12c, Q7c and Q25c. Factor 2, TS, which is elicited by Q4c (0.802 > 0.364), Q3c (0.780 > 0.361), Q2c (0.763 > 0.381), Q13c (0.740 > 0.326), Q12c (0.727 > 0.382), and

Q25c (0.608 > 0.596) were added under factor 1. These was done because factor 1 is greater than factor 2. Q24c under factor 1 was discarded since it is less than factor 2. Instead, Q24c were added under factor 2 of TS (Knafl & Grey, 2007; Field, 2018; Velicer et al., 2000).

Factor 2, TS, starts from Q16c, Q14c, Q15c, Q23c, Q24c, Q17 and Q22. Factor 3, TU, which is elicited by Q23c (0.655 > 0.317), Q17c (0.616 > 0.314) to Q22c (0.604 > 0.440) was discarded. These was done because the values of factor 2 are greater than factor 3. Factor 3, TU, starts from Q19c, Q18c, Q20c to Q21c. Factor 4, TR, had only two high loading values. TR factor was discarded since it is not strong enough to retain. These is done because there has to be three questions on or more if it has to be retained. However, most questions had cross weightings, with the strongest load being below the new dimension.

Most questions had factor weighting of eigenvalues above .03, which is considered significant according on the criterion set by Kline (1999) and Pallant (2011). As a result, the questions were not removed. All these three TM factors have the strong factor and largish correlations, hence, there are retained. In other words, the latent constructs represented by the factors are related. The three TM factors are deemed valid and reliable to continue with the rest of the final analysis. Table 5.10 presents the four TM factors.

Table 5.10 Three new factors of talent management

TM old 4 factors 1	TM new 3 factors
Talent development Talent selection Talent utilisation Talent retention	Talent development Talent selection Talent utilisation

Of significance in the analysis is true that TD rather than TU has the strongest factor loadings, and was extracted as the first factor, followed by TS, TU and TR extracted as the last factor. However, this was expected to some degree; since the TD dimension is valued further by HSU for their employees. As such, the respondents' TM refers to the implementation of integrated HR strategies to attract, develop, retain and productively utilise employees with the necessary expertise and abilities to meet present and future employment needs (Barkhuizen et al., 2014; Gallardo-Gallardo & Thunnissen, 2016).

Furthermore, a study in an organisational context on ranking the driving affecting factors on TM results showed that TR, TS and TA (talent attraction) were the most important ones (Marjani & Safaee, 2016).

The results of this study are not unique to HSU. A previous study conducted by Barkhuizen et al. (2014) on TM, work employment and service excellence orientation of administrative staff in a higher education institution testing TM showed the largest gaps between current applications. These were observed between talent review process and talent retention. Similarly, the one conducted at HSU also showed that the gaps are more prevalent within the dimension of TR. Furthermore, attracting and retaining quality talent is very important to educational institution as a low talent retention rate might create both financial and educational consequences (Barkhuizen et al., 2014).

5.3 RELIABILITY

This section discusses the reliability of the scale items in this study. Cronbach's alpha (α) coefficient was employed to measure internal reliability with the intent to assess consistency based on the inter-item correlations. Items with strong correlation were translated based on the next ***α*** values (Pallant, 2011:59):

- Values above 0.8 reliability are considered good.
- Values between 0.6 and 0.8 reliability are considered acceptable.
- Values below 0.6 reliability are considered unacceptable.

5.3.1 Reliability test for training needs analysis model (TNAM)

This section describes the reliability assessment for the TNA concept. Communalities of TM present the quantity of cases processed to conduct the reliability test (see Table 5.7 on pages 126 and 127).

5.3.1.1 Reliability for feedback construct

Table 5.11 displays the reliability tests of the feedback construct. The statistical assessment indicated in the table was important to the primary reliability value for the TNA construct.

Table 5.11 Reliability coefficients of feedback construct (N=163)

Reliability statistics		
Cronbach's Alpha	**Cronbach's Alpha based on standardised items**	**N of items**
0.895	0.897	8

Item-Total Statistics					
	Scale Mean if Item Deleted	**Scale Variance if Item Deleted**	**Corrected Item-Total Correlation**	**Squared Multiple Correlation**	**Cronbach's Alpha if Item Deleted**
Training needs analysis at the Health Sciences University is linked to strategic objectives of the university.	26.06	33.836	0.788	0.698	0.871
Training Needs Analysis at the Health Sciences University involves the vision and mission of the university.	25.98	34.790	0.753	0.659	0.875
Training Needs Analysis at Health Sciences University involves the funds.	25.73	37.692	0.524	0.329	0.895
Training Needs Analysis information is used to finalise a training plan for the university.	25.98	35.938	0.728	0.567	0.878
Training is effective if the training outcomes match with the university goals.	25.64	37.368	0.573	0.426	0.891
The Training Needs Analysis at the HSU works with the performance management system.	26.50	33.758	0.655	0.486	0.885
Training Needs Analysis is part of the Strategic Human Resource Development processes at Health Sciences University.	26.20	34.397	0.717	0.551	0.878
Health Sciences University's Training Needs Analysis process supports decision about when training is the best option to improve individual performance.	26.20	34.051	0.693	0.528	0.881

Table 5:11 above shows the reliability statistics of Cronbach's Alpha and on eight item total statistics of feedback construct. Data are presented in the form of Scale Mean if Item Deleted, Scale Variance if Item Deleted, Corrected Item-Total Correlation, Squared Multiple Correlation and the Cronbach's Alpha if Item Deleted. The total Cronbach's alpha on eight items of the feedback construct is 0.895. Table 5.12 present the reliability coefficients of organisational analysis construct.

5.3.1.2 Reliability of organisational analysis construct

The following table presents the reliability coefficients of organisational analysis.

Table 5.12 Reliability coefficients of organisational analysis construct (N=163)

Reliability statistics		
Cronbach's Alpha	**Cronbach's Alpha based on standardised items**	**N of items**
0.893	0.893	6

Item-Total Statistics					
	Scale Mean if Item Deleted	**Scale Variance if Item Deleted**	**Corrected Item-Total Correlation**	**Squared Multiple Correlation**	**Cronbach's Alpha if Item Deleted**
The Strategic Human Resource Development plan is followed at Health Science University.	16.49	29.548	0.641	0.477	0.885
Training opportunities are available for employees to improve their skills with regard to new technology.	16.09	27.985	0.725	0.678	0.872
Re-training opportunities are available for employees to improve their skills with regard to new technology.	16.26	28.195	0.703	0.648	0.876
Top management in the Health Sciences University encourages staff participation when	16.69	26.920	0.794	0.669	0.861

Item-Total Statistics					
	Scale Mean if Item Deleted	**Scale Variance if Item Deleted**	**Corrected Item-Total Correlation**	**Squared Multiple Correlation**	**Cronbach's Alpha if Item Deleted**
conducting training needs.					
My department supports me by providing training and development related to my work.	16.54	28.003	0.643	0.500	0.886
Health Sciences University initiate training and development opportunities for me.	16.48	26.683	0.780	0.639	0.863

Table 5.12 above shows the reliability statistics of Cronbach's Alpha and on six item total statistics of organisational analysis construct. Data are presented in the form of Scale Mean if Item Deleted, Scale Variance if Item Deleted, Corrected Item-Total Correlation, Squared Multiple Correlation and the Cronbach's Alpha if Item Deleted. The total Cronbach's alpha on six items of the organisational analysis construct is 0.893. Table 5.13 present the reliability coefficients of task significance construct.

5.3.1.3 Reliability for task significance construct

The following table presents the reliability coefficients of task significance.

Table 5.13 Reliability coefficients of task signifance construct (N=163)

Reliability statistics		
Cronbach's Alpha	**Cronbach's Alpha based on standardised items**	**N of items**
0.860	0.858	5

Item-Total Statistics					
	Scale Mean if Item Deleted	**Scale Variance if**	**Corrected Item-Total Correlation**	**Squared Multiple Correlation**	**Cronbach's Alpha if**

		Item Deleted			Item Deleted
The Training Needs Analysis identifies the type of training that is needed to fill the gap in my job needs.	14.82	12.238	0.648	0.489	0.840
The Training Needs Analysis process effectively identifies who should be trained.	14.87	11.673	0.749	0.607	0.811
The Training Needs Analysis process effectively identifies what content should be taught.	14.87	11.952	0.760	0.613	0.808
The Training Needs Analysis allows the organisation to identify specific training needs that employees may have with regard to a particular skill.	14.64	12.529	0.743	0.604	0.814
Training Needs Analysis is the right step to design an applicable, cost-effective training programme.	14.43	14.814	0.497	0.353	0.870

Table 5.13 above shows the reliability statistics of Cronbach's Alpha and on five item total statistics of task significance construct. Data are presented in the form of Scale Mean if Item Deleted, Scale Variance if Item Deleted, Corrected Item-Total Correlation, Squared Multiple Correlation and the Cronbach's Alpha if Item Deleted. The total Cronbach's alpha on five items of the organisational analysis construct is 0.860. Table 5.14 present the reliability coefficients of task analysis construct.

5.3.1.4 Reliability of task analysis construct

The following table presents the reliability coefficient for task analysis.

Table 5.14 Reliability coefficients of task analysis construct (N=163)

Reliability statistics

Cronbach's Alpha	Cronbach's Alpha based on standardised items	N of items
0.799	0.803	4

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
There is no commitment by top management to carry out Training Needs Analysis.	9.77	9.596	0.430	0.200	0.839
Training Needs Analysis is not effectively implemented at Health Sciences University.	9.48	8.288	0.700	0.509	0.703
Training Needs Analysis is not conducted continuously.	9.50	8.412	0.703	0.557	0.702
Training needs are not reviewed annually.	9.58	9.096	0.639	0.479	0.737

Table 5.14 above shows the reliability statistics of Cronbach's Alpha and on four item total statistics of task analysis construct. Data are presented in the form of Scale Mean if Item Deleted, Scale Variance if Item Deleted, Corrected Item-Total Correlation, Squared Multiple Correlation and the Cronbach's Alpha if Item Deleted. The total Cronbach's alpha on four items of the organisational analysis construct is 0.799. Table 5.15 present the reliability coefficients for the total TNA construct.

5.3.1.5 Reliability of total training needs analysis construct

The following table presents the reliability coefficients of the total TNA.

Table 5.15 Reliability coefficients for the total training needs analysis (N=163)

Reliability statistics		
Cronbach's Alpha	Cronbach's Alpha based on standardised items	N of items
0.907	0.909	24

Item-Total Statistics					
	Scale Mean if Item Deleted	**Scale Variance if Item Deleted**	**Corrected Item-Total Correlation**	**Squared Multiple Correlation**	**Cronbach's Alpha if Item Deleted**
Training needs analysis at the Health Sciences University is linked to strategic objectives of the university.	80.15	230.953	0.661	0.721	0.900
Training Needs Analysis at the Health Sciences University involves the vision and mission of the university.	80.06	232.243	0.660	0.708	0.901
Training Needs Analysis at Health Sciences University involves the funds.	79.82	239.176	0.457	0.424	0.905
Training is effective if the training outcomes match with the university goals.	79.72	237.979	0.511	0.579	0.904
Training Needs Analysis information is used to finalise a training plan for the university.	80.06	235.218	0.624	0.669	0.902
The Training Needs Analysis at the HSU works with the performance management system.	80.58	228.282	0.630	0.598	0.901
The Strategic Human Resource Development plan is followed at Health Science University.	80.62	228.570	0.682	0.707	0.900
Training Needs Analysis is part of the Strategic Human Resource Development processes at Health Sciences University.	80.29	229.515	0.688	0.679	0.900
Health Sciences University's Training Needs Analysis process supports decision about when training is the best option to improve individual performance.	80.29	232.108	0.571	0.625	0.902

Item-Total Statistics					
	Scale Mean if Item Deleted	**Scale Variance if Item Deleted**	**Corrected Item-Total Correlation**	**Squared Multiple Correlation**	**Cronbach's Alpha if Item Deleted**
Training opportunities are available for employees to improve their skills with regard to new technology.	80.22	228.889	0.631	0.727	0.901
Re-training opportunities are available for employees to improve their skills with regard to new technology.	80.39	227.524	0.666	0.704	0.900
Top management in the Health Sciences University encourages staff participation when conducting training needs.	80.82	227.028	0.663	0.711	0.900
There is no commitment by top management to carry out Training Needs Analysis.	80.83	243.275	0.240	0.344	0.910
My department supports me by providing training and development related to my work.	80.67	230.322	0.536	0.623	0.903
Health Sciences University initiate training and development opportunities for me.	80.61	227.362	0.630	0.686	0.901
Training Needs Analysis is not conducted continuously.	80.56	244.075	0.245	0.610	0.909
Training Needs Analysis is not effectively implemented at Health Sciences University.	80.55	245.175	0.208	0.552	0.910
Training needs are not reviewed annually.	80.64	247.070	0.178	0.537	0.910
The Training Needs Analysis identifies the type of training that is needed to fill the gap in my job needs.	80.25	232.128	0.580	0.601	0.902
The Training Needs Analysis process effectively identifies who should be trained.	80.30	230.779	0.630	0.660	0.901

Item-Total Statistics					
	Scale Mean if Item Deleted	**Scale Variance if Item Deleted**	**Corrected Item-Total Correlation**	**Squared Multiple Correlation**	**Cronbach's Alpha if Item Deleted**
The Training Needs Analysis process effectively identifies what content should be taught.	80.31	231.905	0.632	0.686	0.901
The Training Needs Analysis allows the organisation to identify specific training needs that employees may have with regard to a particular skill.	80.07	232.748	0.658	0.673	0.901
Training Needs Analysis is the right step to design an applicable, cost-effective training programme.	79.87	241.364	0.446	0.455	0.905
Training Needs Analysis at the Health Sciences University involves only certain group of employees.	80.65	252.784	0.010	0.388	0.914

Table 5.15 above shows the reliability statistics of Cronbach's Alpha and on 24 item total statistics of TNA construct. Data are presented in the form of Scale Mean if Item Deleted, Scale Variance if Item Deleted, Corrected Item-Total Correlation, Squared Multiple Correlation and the Cronbach's Alpha if Item Deleted. The total Cronbach's alpha on 24 items of the TNA construct is 0.907. The reliability coefficients for the total TNA construct are very important and strong to continue with the study because the Cronbach's Alpha value for all four retained constructs of TNAM is 0.907 and the value is considered good. The reliability statistics results of the TNA process are reliable to continue with the study.

5.3.2 Reliability test for Talent Management Constructs (TM)

This section explores the reliability test of talent development construct. Table 5.16 provides the number of cases utilised to conduct the reliability test.

5.3.2.1 Reliability coefficient of talent development

The following table presents the reliability coefficient of talent development.

Table 5.16 Reliability coefficients of talent development (N=163)

Reliability statistics		
Cronbach's Alpha	**Cronbach's Alpha based on standardised items**	**N of items**
0.946	0.947	12

Item-Total Statistics					
	Scale Mean if Item Deleted	**Scale Variance if Item Deleted**	**Corrected Item-Total Correlation**	**Squared Multiple Correlation**	**Cronbach's Alpha if Item Deleted**
Health Sciences University identifies talent by using university's present capabilities and potential to meet current and future needs.	31.70	113.631	0.788	0.678	0.940
The Health Sciences University measures current performance of employees as part of the Talent Management system.	31.89	112.704	0.826	0.794	0.939
Health Sciences University uses work performance to identifies employees who are talented.	32.09	112.400	0.845	0.806	0.938
Talent planning at Health Sciences University integrates the personal development goals of employees with the university's strategy.	31.85	110.242	0.889	0.825	0.937
The Health Sciences University's recruitment strategy is aligned to the talent management strategy.	31.79	113.701	0.818	0.753	0.939

Item-Total Statistics					
	Scale Mean if Item Deleted	**Scale Variance if Item Deleted**	**Corrected Item-Total Correlation**	**Squared Multiple Correlation**	**Cronbach's Alpha if Item Deleted**
Recruitment plan at the Health Sciences University is the key business goals to determine the skills and talent required to achieve strategic objectives.	31.43	113.728	0.778	0.682	0.940
Talent management is regarded as a strategy to identify, develop and retain talent in the organisation.	31.29	116.947	0.642	0.463	0.945
The remuneration strategy at Health Sciences University is aligned to the university strategy.	31.70	114.026	0.752	0.700	0.941
The rewards and recognition system at Health Sciences University is aligned to the university strategy.	31.92	113.024	0.760	0.703	0.941
Adequate reward and recognition are very important to retain talent at the Health Sciences University.	31.10	119.761	0.447	0.262	0.952
Performance management system available at the Health Sciences University.	32.13	113.438	0.755	0.660	0.941
Talent management processes at the Health Sciences University support successful talent management.	31.73	113.137	0.737	0.632	0.942

Table 5:16 above shows the reliability statistics of Cronbach's Alpha and on 12 item total statistics of talent development construct. Data are presented in the form of Scale Mean if Item Deleted, Scale Variance if Item Deleted, Corrected Item-Total Correlation, Squared Multiple Correlation and the Cronbach's Alpha if Item Deleted. The total Cronbach's alpha

on 12 items of the talent development construct is 0.946. Table 5.17 present the reliability coefficients of talent selection construct.

5.3.2.2 Reliability coefficient of talent selection

The following table presents the reliability coefficient of talent selection.

Table 5.17 Reliability coefficients of talent selection (N=163)

Reliability statistics		
Cronbach's Alpha	**Cronbach's Alpha based on standardised items**	**N of items**
0.910	0.910	7

Item-Total Statistics					
	Scale Mean if Item Deleted	**Scale Variance if Item Deleted**	**Corrected Item-Total Correlation**	**Squared Multiple Correlation**	**Cronbach's Alpha if Item Deleted**
My line manager is able to completely identify talent.	18.71	44.271	0.687	0.613	0.900
My line manager provides the resources I need to carry out my job.	18.51	44.461	0.686	0.624	0.900
My line manager organise the required training for me to be able to carry out my job.	18.83	42.995	0.791	0.668	0.889
I experience a sense of belonging at the Health Sciences University.	18.45	44.175	0.706	0.546	0.898
The culture of the Health Sciences University makes me want to continue working for the university.	18.52	42.165	0.782	0.777	0.890
The Health Sciences University culture assist employees to feel linked to their institution and job.	18.72	43.068	0.778	0.763	0.891

Item-Total Statistics					
	Scale Mean if Item Deleted	**Scale Variance if Item Deleted**	**Corrected Item-Total Correlation**	**Squared Multiple Correlation**	**Cronbach's Alpha if Item Deleted**
I am satisfied with the opportunities to show off my talent.	18.42	44.307	0.664	0.509	0.903

Table 5:17 above shows the reliability statistics of Cronbach's Alpha and on seven item total statistics of talent selection construct. Data are presented in the form of Scale Mean if Item Deleted, Scale Variance if Item Deleted, Corrected Item-Total Correlation, Squared Multiple Correlation and the Cronbach's Alpha if Item Deleted. The total Cronbach's alpha on seven items of the talent selection construct is 0.910. Table 5.18 present the reliability coefficients of talent utilisation construct.

5.3.2.3 Reliability coefficient of talent utilisation

The following table presents the reliability coefficient of talent utilisation.

Table 5.18 Reliability coefficients of talent utilisation (N=163)

Reliability statistics		
Cronbach's Alpha	**Cronbach's Alpha based on standardised items**	**N of items**
0.767	0.779	4

Item-Total Statistics					
	Scale Mean if Item Deleted	**Scale Variance if Item Deleted**	**Corrected Item-Total Correlation**	**Squared Multiple Correlation**	**Cronbach's Alpha if Item Deleted**
I support Health Sciences University's vision for the university.	12.14	7.221	0.551	0.388	0.723
I am committed to do my job.	11.78	7.445	0.583	0.414	0.715
I am satisfied that I have adequate skills to carry out my job.	12.34	5.894	0.622	0.406	0.682

I am satisfied with my talent as anticipated by the Human resource policies.	12.64	5.788	0.565	0.357	0.724

Table 5:18 above shows the reliability statistics of Cronbach's Alpha and on four item total statistics of talent utilisation construct. Data are presented in the form of Scale Mean if Item Deleted, Scale Variance if Item Deleted, Corrected Item-Total Correlation, Squared Multiple Correlation and the Cronbach's Alpha if Item Deleted. The total Cronbach's alpha on four items of the talent utilisation construct is 0.767. Table 5.19 present the reliability coefficients for the total TM construct.

5.3.2.4 Reliability of total talent management construct

The following table presents the reliability coefficients of the total TM.

Table 5.19 Reliability coefficients of for the total talent management (N=163)

Reliability statistics		
Cronbach's Alpha	**Cronbach's Alpha based on standardised items**	**N of items**
0.953	0.953	25

Item-Total Statistics					
	Scale Mean if Item Deleted	**Scale Variance if Item Deleted**	**Corrected Item-Total Correlation**	**Squared Multiple Correlation**	**Cronbach's Alpha if Item Deleted**
Health Sciences University identifies talent by using university's present capabilities and potential to meet current and future needs.	75.72	421.908	0.718	0.719	0.951
The Health Sciences University measures current performance of employees as part of the Talent Management system.	75.91	418.578	0.788	0.803	0.950
Health Sciences University uses work performance to identifies employees who are talented.	76.10	418.699	0.791	0.823	0.950

Item-Total Statistics					
	Scale Mean if Item Deleted	**Scale Variance if Item Deleted**	**Corrected Item-Total Correlation**	**Squared Multiple Correlation**	**Cronbach's Alpha if Item Deleted**
Talent planning at Health Sciences University integrates the personal development goals of employees with the university's strategy.	75.87	414.327	0.840	0.851	0.950
The Health Sciences University's recruitment strategy is aligned to the talent management strategy.	75.80	421.517	0.756	0.780	0.951
Recruitment plan at the Health Sciences University is the key business goals to determine the skills and talent required to achieve strategic objectives.	75.45	421.088	0.731	0.712	0.951
Talent management is regarded as a strategy to identify, develop and retain talent in the organisation.	75.31	426.473	0.617	0.531	0.952
The remuneration strategy at Health Sciences University is aligned to the university strategy.	75.72	420.673	0.728	0.726	0.951
The rewards and recognition system at Health Sciences University is aligned to the university strategy.	75.94	418.428	0.744	0.734	0.951
Adequate rewards and recognition system are very important to attract talent at the Health Sciences University.	75.18	429.929	0.472	0.737	0.954
Adequate reward and recognition are very important to retain talent at the Health Sciences University.	75.12	429.269	0.481	0.746	0.954
Performance management system available at the Health Sciences University.	76.15	418.711	0.749	0.886	0.951
Performance management system is aligned to the Health Sciences University‘s strategy.	76.03	419.252	0.730	0.874	0.951
My line manager is able to completely identify talent.	75.63	420.975	0.636	0.682	0.952
My line manager provides the resources I need to carry out my job.	75.44	421.383	0.637	0.659	0.952

Item-Total Statistics					
	Scale Mean if Item Deleted	**Scale Variance if Item Deleted**	**Corrected Item-Total Correlation**	**Squared Multiple Correlation**	**Cronbach's Alpha if Item Deleted**
My line manager organise the required training for me to be able to carry out my job.	75.75	418.322	0.703	0.713	0.951
I experience a sense of belonging at the Health Sciences University.	75.38	419.249	0.679	0.667	0.951
I support Health Sciences University's vision for the university.	74.46	439.164	0.463	0.561	0.953
I am committed to do my job.	74.10	447.336	0.283	0.486	0.955
I am satisfied that I have adequate skills to carry out my job.	74.66	439.040	0.358	0.511	0.955
I am satisfied with my talent as anticipated by the Human resource policies.	74.96	429.720	0.509	0.557	0.953
I am satisfied with the opportunities to show off my talent.	75.35	418.883	0.658	0.642	0.952
The culture of the Health Sciences University makes me want to continue working for the university.	75.45	414.471	0.726	0.814	0.951
The Health Sciences University culture assist employees to feel linked to their institution and job.	75.64	414.465	0.770	0.840	0.950
Talent management processes at the Health Sciences University support successful talent management.	75.75	415.547	0.785	0.776	0.950

Table 5.19 above shows the reliability statistics of Cronbach's Alpha and on 25 item total statistics of TM construct. Data are presented in the form of Scale Mean if Item Deleted, Scale Variance if Item Deleted, Corrected Item-Total Correlation, Squared Multiple Correlation and the Cronbach's Alpha if Item Deleted. The total Cronbach's alpha on 25 items of the TM construct is 0.953. The reliability coefficients for the total TNA construct are very important and strong to continue with the study because the Cronbach's Alpha value for all three retained constructs of TM is 0.953 and the value is considered good. The reliability statistics results of the TM process are reliable to continue with the study. The next section reports the descriptive statistics.

5.4 DESCRIPTIVE STATISTICS

In this section, descriptive statistics for variable constructs and the relevant sub-dimensions according to population samples are reported. Data was presented in a way of means, standard deviations (SD) and standard error (SE) mean, skewness and kurtosis. The standard error (SE) shows the census sample distribution of the population. Therefore, the statistics compares the mean scores for individual data samples relative to the actual population.

Moreover, different mean scores show sample variation relative to the degree of perceptions of administrative staff indicating the population. A sample of a population may have the same mean; concurrently, other samples may have a different mean. The following descriptive statistics for TNA-4 and TM variables are presented.

5.4.1 Descriptive statistics for training needs analysis

The following table presents the mean, standard deviation, skewness and kurtosis of TNA.

Table 5.20 Mean, Standard deviations, skewness and kurtosis for TNA-4 (N=163)

Scale dimensions	Mean	SD	SE	Skewness	Kurtosis
TNA_4	3.78	1.294	0.102	-1.059	0.577
Feedback	4.12	1.299	0.102	-1.526	2.396
Organisational analysis	3.62	1.382	0.108	-0.804	-1.288
Task significance	4.12	1.195	0.094	-1.526	2.396
Task analysis	3.29	1.298	0.102	-0.378	-1.197

Table 5.20 shows the descriptive statistics and the entire scores on the 5-point scale for the dimensions of the TNA_4 scale. Data was indicated in a way of means, SD and SE mean, skewness and kurtosis. Reflecting from the presentation of the data, it seems that the mean scores for the sample data are not similar to the standard error (SE) mean. Each of the scale dimensions obtained the following mean scores and SD respectively; feedback was (M=4.12, SD=1.29); task significance was (M=4.12, SD=1.19), and task analysis obtained the least scores of (M=3. 29, SD=1. 29). The SD scores for organisational analysis (SD=1.38), feedback (SD=1.29) and task analysis (SD=1.29)

display a comparatively slight deviation comparative to the mean scores of 4.12, 3.62 and 4.12 respectively.

The SD scores for organisational analysis (M=3.62, S =1.38) are above 1, and this displays a relatively significant deviance from the mean score of the sub-dimensions. This means that the distribution of the rating scores for the dimension of organisational analysis has deviated with a number of odd cases. However, compared to the 5-point scale, the average value of organisational analysis is above 3. This score recommends that the frequency scores are clustered around the upper values by means of positive scores (Field, 2009).

The data in Table 5.20 presents variation regarding the perceptions of administrative staff as compared to the actual population. This variation is validated by the standard error mean (SE=0.102, SE=0.108, SE=0.094 and SE=0.102). Furthermore, data variation is more perceived in the entire TNA_4 (M=3.78, SE=1.0), where the mean scores are comparatively the same to the SE mean. The magnitude of deviation is relatively small (SD=1.29); hence, it accurately represents variation in the data.

The skewness values of TNA_4 scales indicated that all the scores for the subscales (feedback, organisational analysis, task significance and task analysis) were negatively skewed (bounded to the right). The values ranged between -0.378 and -1.526., thus falling within the -1 and +1 normality range recommended for these coefficients (Field, 2018, Graziano & Raulin, 2014; Howell, 2008). Skewness for the four subscales ranged between -0.378 and -1.526., thus falling within the -1 and 1 normality range recommended for these coefficients (Salkind, 2012).

The TNA_4 data scale dimensions scored a high and positive overall kurtosis of 2.3. Kurtosis values showed that feedback and task significance subscales had a normal distribution (most scores lie in the middle of the graph) of 2.396. The organisational analysis and task analysis data scored a negative kurtosis (-1. 288 and -1.197) indicating a high kurtosis with a flattened shape for the distribution. Therefore, a positive kurtosis value indicates positive kurtosis whereas a negative one indicates negative kurtosis (Rose *et al.*, 2015). Finally, in terms of this study, the skewness score for TNA_4 is less skewed, which shows that the data is not normally distributed.

5.4.2 Interpretation of the descriptive results pertaining to training needs analysis

The average mean score of TNA-4 is based on 3.78 and SD on 1.294. The latter data based on a 3.62 mean rating for organisational analysis, the ratings suggest that, the respondents perceived that the HSU initiate training and development opportunities for administrative staff and encourages staff participation when conducting training needs.

Considering the high mean score of 4.12 for *feedback*, the ratings recommend that administrative staff observe that the TNA at the HSU involves the vision and mission and it is linked to the strategic goals of the university. In addition, this suggests that training needs in office workspaces is very important and needs a feedback for administrative staff to get the job done. Furthermore, the above mean score of 4.12 for *task significance*, recommend that administrative staff observe that the TNA process at the HSU effectively identifies the actual training needs that are experienced by the administrative staff. In addition, the administrative staff observe their work to have main penalties for their managers and touches them in very significant ways (Oldham & Fried, 2016). Therefore, *task significance* is an important element of the TNA process in the university.

Lastly, based on the lowest mean score of 3.29 for *task analysis*, the mediocre ratings recommend that administrative staff observe that the TNA process at the HSU is not effectively implemented. In addition, the administrative staff suggest that office work is important and it requires a task allocation, task complexity or one or more people to perform a given task.

Taking into account the above discussions, the mean scores are a precise demonstration of the data with the maximum mediocre score being achieved from the dimensions of feedback and task significance. Generally, the scores suggest that administrative staff were given feedback with regard to their identified training needs. Also, that task significance is very important for them to get the job done.

The descriptive statistics results of TNA process are strong, since, the total mean score of TNA-4 is 3.78. The next table represents the descriptive statistics of TM.

5.4.3 Descriptive statistics for talent management

This section presents the descriptive statistics of Talent Management.

Table 5.21 Mean, standard deviations, skewness and kurtosis for talent management (N=163)

Scale dimensions	Mean	SD	SE	Skewness	Kurtosis
Talent Management (TM_3)	3.70	1.404	0.110	-1.198	1.606
Talent development	3.31	1.412	0.111	-0.606	-1.193
Talent selection	3.27	1.412	0.111	-0.467	-1.367
Talent utilisation	4.52	1.388	0.109	-2.522	7.379

Table 5.21 above shows the descriptive statistics and the scores on the 5-point scale for the dimensions of the TM_3 scale. Data are presented in the form of means, SD and SE mean, skewness and kurtosis. The mean score shows the average ratings of administrative staff per subscale (n=163), while the SD shows the distribution of scores per subscale. A normal distribution has a mean of 0 and an SD of 1 (Field, 2009, 2018). None of the ratings for the sub-scales had a scores of 0, thus, indicating that the data shows that the mean scores for the census sample data are not the same as the standard error (SE) mean. Talent utilisation obtained the highest scores (M=4.52, SD=1.38), while talent selection had the minimum score (M=3.27, SD=1.41). The SD scores for talent development (SD=1.41) and talent selection (SD=1.41) show the same, relative to the mean scores of 3.31 and 3.27 show a relatively small deviance.

The SD for all sub-dimensions had scores of 1, thus, indicating a normal distribution. Rating scores were talent development (M=3.31, SD=1.41), talent selection (M=3.27, SD=1.41) and talent utilisation (M=4. 52, SD=1. 38) were distributed from 0 and 1. The standard deviations of talent development (M=3.31, SD=1.41), talent selection (M=3.27, SD=1.41) and talent utilisation (M=4. 52, SD=1. 38) are more than 1, thus, indicating a relatively major deviation from the mean scores of 3.31, 3.27 and 4.52.

In observing the data, the mean scores for the sample data are not the same as the standard error (SE) mean. Therefore, the mean scores of M=3.31 for talent development, talent selection M=3.27 and talent utilisation M=4.52 for the population sample display

sample variation. Data therefore indicate sample variation in terms of the perceptions of administrative staff compared to the actual population with SE=0.111, SE=0.111 and SE=0.109, respectively. However, when observing the scores for talent development, (SD=1.41), talent selection (SD=1.41) and talent utilisation (SD=1.38) TM, the magnitude of deviance is relatively small for the sub-dimensions. This is also the case for the TM score (SD=1.40). These scores authenticate the correct representation of data. As a result, the scores offset the TM variance seen in the mean (M=3.70) and the standard error (SE=0.11), where the mean scores are relatively similar to the SE mean. The magnitude of deviance is relatively small (SD=1.40), and this accurately represents variation in the data.

The skewness values of TM_3 scales indicated that all the scores for the subscales (talent development, talent selection, and talent utilisation) were negatively skewed (bounded to the right). The values ranged between -0.467 and -2.522., thus falling within the -1 and +1 normality range recommended for these coefficients (Field, 2018, Graziano & Raulin, 2014; Howell, 2016). Skewness for the three subscales ranged between -0.467 and -2.522., thus falling within the -1 and 1 normality range recommended for these coefficients (Salkind, 2012).

The TM_3 data scale dimensions scored a high and positive overall kurtosis of 7.3. Kurtosis values showed that talent utilisation subscales had a normal distribution (scores lie in the middle of the graph) of 7.379. Talent development and talent selection data scored a negative kurtosis (-1. 193 and -1.367) indicating a high kurtosis with a flattened shape for the distribution. Lastly, the skewness score for talent utilisation is highly skewed; this demonstrates that the data is not normally distributed.

5.4.4 Interpretation of the descriptive results pertaining to talent management

The average mean score of TM is based on 3.70 and SD on 1.404. The above data based on the high mean score of 4.52 for the *talent utilisation* sub-dimension suggest that, the administrative staff are fully committed to their jobs, and to carry out their jobs in order to support the HSU's vision. Therefore, the administrative staff strongly agree in performing their office work in the university.

The mean score of 3.31 (neutral) for *talent development*, it is slightly positive towards

development of talent employees. The ratings suggest that administrative staff perceive that HSU identifies talent development by using the existing TNA process. As a result, administrative staff have slightly positive perception towards their talent development within their office work in the university.

Furthermore, the mean score of 3.27 (neutral) for *talent selection*, it is slightly positive towards selection of talent employees. The ratings suggest that administrative staff perceive that their line managers are able to identify the talent employees. In addition, administrative staff are slightly positive regarding their talent selection in the university. Therefore, talent selection plays a huge role and is linked with the talent development and talent utilisation. However, in all aspects of TM practice, the HSU needs to enhance their talent selection of administrative staff, as it has scored the lowest mean score of 3.27. These mean scores are an accurate representation of the data with the highest average score being obtained from talent utilisation. Generally, the score suggest that administrative staff were committed in their identified training needs in order to get their job done. The descriptive statistics results of TM practice are good, since, the total mean score of TM-4 is 3.70.

5.5 CORRELATIONAL ANALYSIS

Correlational analysis was explored to determine the extent to which variables TNAM and TM, are linked to one another. Correlation coefficient r (Pearson correlation) was employed to assess the association between variables. The matrix presents the correlation coefficients for the two variables. The significance value and the sample size are presented on table 5.22. The coefficients lie between -1 and +1, wherever variables are flawlessly correlated once $r = 1$, and adversely correlated when $r = -1$. Table 5.22 below present the relationship between TNA-4 and TM variables.

Table 5.22 Correlations between TNA-4 and TM (N=163)

Variables	TNA-4 (total score)	Feedback TNA	Organisation analysis	Task significance	Task Analysis	TM (total score)	Talent development	Talent selection	Talent utilisation
TNA-4 (total score)	**1**	.846***	.842***	.792***	.368**	.709***	.674***	.554***	.534***
Feedback		**1**	.678***	.572***	0.028	.645***	.618***	.490**	.468**
Organisational analysis			**1**	.572***	0.068	.732***	.695***	.640***	.445**
Task significance				**1**	.220*	.532***	.545***	.343**	.415**
Task analysis					**1**	0.046	-0.007	0.025	.182*
TM (total score)						**1**	.940***	.893***	.582***
Talent development							**1**	.744***	.377***
Talent selection								**1**	.515***
Talent utilisation									**1**

Note: N=163, ***p≤.001, **p≤.01,*p≤ .05, + r≥ .29 (small effect);++r≥ .30 r ≤ .49 (medium effect); +++ r ≥ .50 (large effect).

Table 5.22 presents that the TNA-4 total score, as well as the sub-dimension scores (feedback, organisational analysis, task significance and task analysis) and TM total score, as well as the sub-dimensions (talent development, talent selection and talent utilisation) variables correlated positively and significantly (r≥.182 ≥r ≥.940; a small to large applied effect; p≤.05).

The findings show that the total TNA correlated significantly, with feedback (r=.846; large effect; p≤.05), organisational analysis (r=.792; large effect; p≤.05) and task analysis (r=.368; medium effect; p≤.05) variables. A significant optimistic correlation was found as well between feedback and organisational analysis (r=.678; large effect; p≤.05), task significance (r=.572; large effect; p≤.05) variables. A significant optimistic correlation was found as well between organisational analysis and task significance (r=.572; large effect; p≤.05) variables. A significant positive correlation was found also among task significance and task analysis (r=.20; small effect; p≤.05).

The findings demonstrate that total TM correlated significantly, with talent development (r=.940; large effect; p≤.05), talent selection (r=.893; large effect; p≤.05) and talent utilisation (r=.582; large effect; p≤.05) variables. A significant positive correlation was found also between talent development and talent selection (r=.744; large effect; p≤.05), talent utilisation (r=.377; medium effect; p≤.05) variables. A significant positive correlation was found also among talent selection and talent utilisation (r=.515; large effect; p≤.05) variables.

The findings demonstrate that total TNA correlated significantly, with the total TM (r=.709; large effect; p≤.05), talent development (r=.674; large effect; p≤.05), talent selection (r=.554; large effect; p≤.05) and talent utilisation (r=.534; large effect; p≤0.05) variables.

A significant positive correlation was found as well between feedback and the entire TM (r=.645; large effect; p ≤ .05), talent development (r=.618; large effect; p≤.05), talent selection (r=.490; medium effect; p≤.05) and talent utilisation (r=.468; medium effect; p≤0.05) variables.

A significant positive correlation was found as well between organisation analysis and the total TM (r=.732; large effect; p≤.05), talent development (r=.695; large effect; p≤.05),

talent selection (r=.640; large effect; p≤.05) and Talent utilisation (r=.445; medium effect; p≤0.05) variables.

A significant positive correlation was found as well between task significance and total TM (r=.532; large effect; p≤.05), talent development (r=.545; large effect; p≤.05), talent selection (r=.343; medium effect; p ≤ .05) and talent utilisation (r=.415; medium effect; p≤0.05) variables. A significant positive correlation was found as well between task significance and task analysis (r=.185; small effect; p≤.05).

The above findings are used to test the null hypothesis.

H_{o1} tests under correlation analysis between the TNA process and TM practice variables is a strong, significant and positive relationship. The hypothesis is as follow:

1. H_{o1}: There is no relationship between the TNA process and TM practices in the HSU.

Based on the results, the null hypothesis is rejected, because it is true, there is a strong, significant, and positive relationship between the TNA process and the TM practice on a total score of 0.709. The following section reports on the test for significant mean differences.

5.6 TEST FOR SIGNIFICANT MEAN DIFFERENCES

5.6.1 The Mann-Whitney U test

This section reports on the findings of the Mann-Whitney test conducted with the objective to display the differences in the ranked positions of scores in different groups (Field, 2018). The Mann-Whitney test relies on scores being ranked from the lowest to highest. The Tables below, presents the Mann-Whitney test statistic for significant mean differences in terms of the TNA process for age, gender, job title, educational level, job level and tenure.

5.6.2 Test for significant mean differences with regard to TNA

5.6.2.1 Age

The mean scores for administrative staff ratings on age including the results of the Mann-Whitney test to determine whether there are significant differences in ratings between the early and late career age presented in Table 5.23. Because of this, it is notable how the age categories of administrative staff differ between the early career and late career. Table 5.23 presents Mann-Whitney ranks and the test statistics for the significant mean differences and its significance on age groups.

Table 5.23 Age mean differences (N=163)

Ranks			Test statistics		
Age	**N**	**Mean rank**	**Mann-Whitney U**	**Z**	**Asymp. Sig**
Early career 20 – 40 years	94	87.77	2700.500	-1.823	0.068
Late career 41 – 60+years	69	74.14			
Total	**163**				

Table 5.23 indicates that the early career age mean rank (87.77) did not differ significantly from the late career age mean rank with (74.14), test statistics and its significance U=2700.500, Z= -1.823 and p=0.068. The p-value of 0.068, which is greater than the critical value of 0.05. Therefore; the perceptions of different age groups on the mean ranks differences, shows that there is no significant difference with regards to their perceptions of the TNA process evaluation questions. The following table, Table 5.24 reports on gender of the TNA process evaluation.

5.6.2.2 Gender

The mean scores for administrative staff ratings on gender including the results of the Mann-Whitney test to determine whether there are significant differences in ratings between female and male presented in Table 5.24. This shows how the gender categories of administrative staff differ between females and males. Table 5.24 presents Mann-Whitney ranks and the test statistics for the significant mean differences and its significance on gender groups.

Table 5.24 Gender mean differences (N=163)

Ranks			Test statistics		
Gender	**N**	**Mean rank**	**Mann-Whitney U**	**Z**	**Asymp. Sig**
Female	120	83.14	2443.000	-0.516	0.606
Male	43	73.81			
Total	**163**				

Table 5.24 indicates that the female mean rank (83.14) did not differ significantly from the male mean rank with (73.81), test statistics and its significance U=2443.000, Z= -0.516 and p=0.606. The p-value of 0.606, which is greater than the critical value of 0.05, therefore; the gender groups on the mean ranks differences, shows that there is no significant difference with regards to female and male on all their perceptions of the TNA process evaluation questions. The next table, Table 5.25 reports on job title of the TNA process evaluation.

5.6.2.3 Job title

The mean scores for administrative staff ratings on job title including the results of the Mann-Whitney test to determine whether there are significant differences in ratings between the administrative officer and secretary presented in Table 5.25. Therefore, it is particularly notable how the job title categories of administrative staff differ between the administrative officers and secretaries. Table 5.25 presents Mann-Whitney ranks and the test statistics for the significant mean differences and its significance on job title groups.

Table 5.25 Job title mean differences (N=163)

Ranks			Test statistics		
Job title	**N**	**Mean rank**	**Mann-Whitney U**	**Z**	**Asymp. Sig**
Administrative officer	121	78.86	2921.000	-1.442	0.149
Secretary	42	91.05			
Total	**163**				

Table 5.25 indicates that the secretary mean rank (91.05) did not differ significantly different from the administrative officer mean rank with (78.86), test statistics and its significance U=2921.000, Z= -1.442 and p=0.149. The p-value of 0.149, is greater than the critical value of 0.05, therefore; the job title groups on the mean ranks differences, shows that there is no significant difference with regards to secretaries and administrative

officers on all their perceptions of the TNA process evaluation questions. The next table, Table 5.26 reports on educational level of the TNA process evaluation.

5.6.2.4 Educational level

The mean scores for administrative staff ratings on educational level including the results of the Mann-Whitney test to determine whether there are significant differences in ratings between undergraduate and postgraduate are presented in Table 5.26. It is notable how the educational level categories of administrative staff differ between undergraduate level and postgraduate level. Table 5.26 presents Mann-Whitney ranks and the test statistics for the significant mean differences and its significance on educational level groups.

Table 5.26 Educational level mean differences (N=163)

Ranks			Test statistics		
Educational level	**N**	**Mean rank**	**Mann-Whitney U**	**Z**	**Asymp. Sig**
Undergraduate Certificate – Honours	91	78.10	2629.500	-0.549	0.583
Postgraduate Masters - Phd	61	74.11			
Total	**163**				

Table 5.26 indicates that the undergraduate educational level mean rank (78.10) did not differ significantly from the postgraduate educational level mean rank with (74.11), test statistics and its significance U=2629.500, Z= -0.549 and p=0.583. The p-value of 0.583, which is greater than the critical value of 0.05, therefore; the educational level groups on the mean ranks differences, shows that there is no significant difference with regards to undergraduate and postgraduate educational level on all their perceptions of the TNA process evaluation questions. The following table, Table 5.27 reports on the job level of the TNA process evaluation.

5.6.2.5 Job level

The mean scores for administrative staff ratings on job level including the results of the Mann-Whitney test to determine whether there are significant differences in ratings between lower and higher level are presented in Table 5.27. Therefore, it is particularly notable how the job level categories of administrative staff differ between lower level and

higher level. Table 5.27 presents Mann-Whitney ranks and the test statistics for the significant mean differences and its significance on job level groups.

Table 5.27 Job level mean differences (N=163)

Ranks			Test statistics		
Job level	**N**	**Mean rank**	**Mann-Whitney U**	**Z**	**Asymp. Sig**
Lower level Peromnes 12-10	70	55.64	1810.000	1.129	0.259
High level Peromnes 9-8	46	62.85			
Total	**163**				

Table 5.27 indicates that higher level mean rank (62.85) did not differ significantly from the lower level mean rank with (55.64), test statistics and its significance U=1810.000, Z=1.129 and p=0.259. The p-value of 0.259, which is greater than the critical value of 0.05, therefore; the job level groups on the mean ranks differences, shows that there is no significant difference with regards to higher level and lower level on educational level of all their perceptions of the TNA process evaluation questions. The next table, Table 5.28 reports on tenure of the TNA process evaluation.

5.6.2.6 Tenure

The mean scores for administrative staff ratings on job level including the results of the Mann-Whitney test to determine whether there are significant differences in ratings between less and more experience presented in Table 5.28. Therefore, it is particularly notable how the tenure categories of administrative staff differ between less and more experience. Table 5.28 presents the Mann-Whitney ranks and the test statistics for the significant mean differences and its significance on tenure groups.

Table 5.28 Tenure mean differences (N=163)

Ranks			Test statistics		
Tenure	**N**	**Mean rank**	**Mann-Whitney U**	**Z**	**Asymp. Sig**
Less experience 0-10 years	108	80.64	3008.500	0.329	0.742
More experience 11-20+ years	54	83.21			

Total	**163**				

Table 5.28 indicates that the more experienced groups' mean rank (83.21) did not differ significantly from the less experienced groups' mean rank, with (80.64), test statistics and its significance U=3008.500, Z=0.329 and p=0.742. The p-value of 0.742, which is greater than the critical value of 0.05, therefore; the tenure groups on the mean ranks differences, shows that there is no significant difference with regards to more experienced and less experienced groups on tenure of all their perceptions of the TNA process evaluation questions. The next section explores test for significant mean differences in TM.

5.6.3 Test for significant mean differences with regard to TM

Mann-Whitney test was utilised in this section with the objective to display the differences in the ranked positions of scores in different groups (Field, 2018). Mann-Whitney test relies on scores being ranked from the lowest to highest. Tables below, presents the Mann-Whitney test statistic for significant mean differences concerning TM practices for age, gender, job title, educational level, job level and tenure.

5.6.3.1 Age

The mean scores for administrative staff ratings on age including the results of the Mann-Whitney test to determine whether there are significant differences in ratings between the early and late career age presented in Table 5.29. Because of this, it is notable how the age categories of administrative staff differ between the early career and late career. Table 5.29 presents the TM system evaluation of Mann-Whitney ranks and the test statistics for the significant mean differences and its significance on age groups.

Table 5.29 Age mean differences on talent management (N=163)

Ranks			**Test statistics**		
Age	**N**	**Mean rank**	**Mann-Whitney U**	**Z**	**Asymp. Sig**
Early career 20 – 40 years	94	84.96	2964.500	-0.936	0.349
Late career 41 - 60+ years	69	77.96			
Total	163				

Table 5.29 indicates that the early career age mean rank (84.96) did not differ significantly from the late career age mean rank with (77.96), test statistics and its significance U=2964.500, Z= -0.936 and p=0.349. The p-value of 0.349, which is greater than the critical value of 0.05, therefore; the age groups on the mean ranks differences, shows that there is no significant difference with regards early career and late career age to all their perceptions of the TM system evaluation questions.

The following table, Table 5.30 reports on gender of the TM system evaluation.

5.6.3.2 Gender

The mean scores for administrative staff ratings on gender including the results of the Mann-Whitney test to determine whether there are significant differences in ratings between female and male presented in Table 5.30. This shows how the gender categories of administrative staff differ between females and males. Table 5.30 presents the TM system evaluation of Mann-Whitney ranks and the test statistics for the significant mean differences and its significance on gender groups.

Table 5.30 Gender mean differences on talent management (N=163)

Ranks			Test statistics		
Gender	**N**	**Mean rank**	**Mann-Whitney U**	**Z**	**Asymp. Sig**
Female	120	80.52	2168.000	-1.552	0.121
Male	43	86.13			
Total	**163**				

Table 5.30 indicates that the male mean rank (86.13) did not differ significantly from the female mean rank with (80.52), test statistics and its significance U=2168.000, Z= -1.552 and p=0.121. The p-value of 0.121, which is greater than the critical value of 0.05, therefore; the gender groups on the mean ranks differences, shows that there is no significant difference with regards male and female groups to all their perceptions of the TM system evaluation questions. The following table, Table 5.31 reports on job title of the TM system evaluation.

5.6.3.3 Job title

The mean scores for administrative staff ratings on job title including the results of the Mann-Whitney test to determine whether there are significant differences in ratings between the administrative officer and secretary presented in Table 5.31. Therefore, it is particularly notable how the job title categories of administrative staff differ between the administrative officers and secretaries. Table 5.31 presents the TM system evaluation of Mann-Whitney ranks and the test statistics for the significant mean differences and its significance on job title groups.

Table 5.31 Job title mean difference (N=163)

Ranks			Test statistics		
Job title	**N**	**Mean rank**	**Mann-Whitney U**	**Z**	**Asymp. Sig**
Administrative officer	121	78.86	2716.500	0.666	0.505
Secretary	42	91.05			
Total	**163**				

Table 5.31 indicates that the secretary mean rank (91.05) did not differ significantly from the administrative officer mean rank with (78.86), test statistics and its significance U=2716.500, Z=0.666 and p=0.505. The p-value of 0.505, which is greater than the critical value of 0.05, therefore; the job title groups on the mean ranks differences, shows that there is no significant difference with regards secretary and administrative officer groups to all their perceptions of the TM system evaluation questions. The following table, Table 5.32 reports on educational level of the TM system evaluation.

5.6.3.4 Educational level

The mean scores for administrative staff ratings on educational level including the results of the Mann-Whitney test to determine whether there are significant differences in ratings between undergraduate and postgraduate are presented in Table 5.32. Therefore, it is particularly notable how the educational level categories of administrative staff differ between undergraduate level and postgraduate level. Table 5.32 presents the TM system evaluation of Mann-Whitney ranks and the test statistics for the significant mean differences and its significance on educational level groups.

Table 5.32 Educational mean difference (N=163)

Ranks			Test statistics		
Educational level	**N**	**Mean rank**	**Mann-Whitney U**	**Z**	**Asymp. Sig**
Undergraduate Certificate - Honours	91	79.19	2531.000	-0.919	0. 358
Postgraduate Masters - Phd	61	72.49			
Total	**163**				

Table 5.32 indicates that the undergraduate mean rank (79.19) did not differ significantly from the postgraduate mean rank with (72.49), test statistics and its significance U=2531.000, Z= -0.919 and p=0.358. The p-value of 0.358, which is greater than the critical value of 0.05, therefore; the educational level groups on the mean ranks differences, shows that there is no significant difference with regards undergraduate and postgraduate groups to all their perceptions of the TM system evaluation questions. The following table, Table 5.30 reports on job level of the TM system evaluation.

5.6.3.5 Job level

The mean scores for administrative staff ratings on job level including the results of the Mann-Whitney test to determine whether there are significant differences in ratings between lower and higher level are presented in Table 5.33. Therefore, it is particularly notable how the job level categories of administrative staff, differ between the lower level and higher level. Table 5.33 presents the TM system evaluation of Mann-Whitney ranks and the test statistics for the significant mean differences and its significance on job level groups.

Table 5.33 Job level mean differences (N=163)

Ranks			Test statistics		
Job level	**N**	**Mean rank**	**Mann-Whitney U**	**Z**	**Asymp. Sig**
Lower level Peromnes 12-10	70	57.02	1713.500	0.584	0.559
High level Peromnes 9-8	46	60.75			
Total	**163**				

Table 5.33 indicates that the high-level mean rank (60.75) did not differ significantly from the lower-level mean rank with (57.02), test statistics and its significance U=1713.500, Z= -0.584 and p=0.559. The p-value of 0.559, which is greater than the critical value of 0.05, therefore; the job level groups on the mean ranks differences, shows that there is no significant difference with regards high level and low-level groups to all their perceptions of the TM system evaluation questions. The next table, Table 5.34 reports on tenure of the TM system evaluation.

5.6.3.6 Tenure

The mean scores for administrative staff ratings on job level including the results of the Mann-Whitney test to determine whether there are significant differences in ratings between less and more experience presented in Table 5.34. Therefore, it is particularly notable how the tenure categories of administrative staff differ between less experience and more experience. Table 5.34 presents the TM system evaluation of Mann-Whitney ranks and the test statistics for the significant mean differences and its significance on tenure groups.

Table 5.34 Tenure mean differences (N=163)

Ranks			Test statistics		
Tenure	**N**	**Mean rank**	**Mann-Whitney U**	**Z**	**Asymp. Sig**
Less experience 0-10 years	108	82.65	2791.500	-0. 442	0.658
More experience 11 – 20+years	54	79.19			
Total	**163**				

Table 5.34 indicates that less experience mean rank (82.65) did not differ significantly from more experience mean rank with (79.19), test statistics and its significance U=2791.500, Z= -0.442 and p=0.658. The p-value of 0.658, which is greater than the critical value of 0.05, therefore; the tenure groups on the mean ranks differences, shows that there is no significant difference with regards less experience and more experience groups to all their perceptions of the TM system evaluation questions.

The above findings of the tests affirmed that the alternate hypothesis H_{a3} and the null hypothesis H_{o2} under Mann-Whitney tests, and the predictive effect of the perceptions of

the test for significant mean differences between the TNA process and TM practices. The hypotheses are as follows:

2. H_{a3}: Administrative staff at HSU perceive that the current TNA process and TM practices are not adequate.

The findings of the tests affirmed that the alternate hypothesis H_{a3} tests under Mann-Whitney test, and the predictive effect of administrative staff (administrative officers and secretaries categories), is that there are no significant differences on their perceptions regarding TNA process and TM practices. Therefore, the alternative hypothesis is rejected as type I error.

3. H_{o2}: There is no significant differences between the demographic variables (age, gender, job title, educational level, job level and tenure) responses in terms of their perceptions on the TNA process and TM practices.

The findings of the tests affirmed that the null hypothesis H_{o1} tests under Mann-Whitney test, and the predictive effect is that there are no significant differences between the age, gender, job title, educational level, job level and tenure on their responses with regard to their perceptions on the TNA process and TM practices. Therefore, the null hypothesis is rejected as type I error. The section reports on the conclusions regarding the research hypotheses.

5.7 CONCLUSIONS REGARDING THE RESEARCH HYPOTHESES

The following table, Table 5.35 presents a summary of the conclusions in terms of the research hypotheses.

Table 5.35 Summary of the findings of research hypotheses

Research objective 1	Research hypothesis	Statistical procedure	Supportive evidence
To investigate the link or relationship between the perception on TNA process	H_{o1}: There is no relationship between the TNA process and TM practices in the HSU.	Correlation analysis	Not supported

and TM practices within the HSU environment.			
Research objective 2	**Research hypothesis**	**Statistical procedure**	**Supportive evidence**
To measure the perceptions of administrative staff in terms of the TNA process and the TM practice at the HSU.	H_{a3}: Administrative staff at HSU perceive that the current TNA process and TM practices are not adequate.	Mann-Whitney test	Supported
Research objective 3	**Research hypothesis**	**Statistical procedure**	**Supportive evidence**
To evaluate differences in the TNA process and TM practice in terms of certain demographic variables (age, gender, job title, educational level, job level and tenure).	H_{o2a}: There are no significant differences between the female and male responses with regard to their perceptions on the TNA process and TM practices. $H_{o2b:}$ There are no significant differences between the age responses with regard to their perceptions on the TNA process and TM practices. H_{o2c}: There are no significant differences between the job title responses with regard to their perceptions on the TNA process and TM practices. H_{o2d}: There are no significant differences between the educational level responses with regard to their perceptions on the TNA process and TM practices. H_{o2e}: There are no significant differences between the job level responses with regard to their perceptions on the TNA process and TM practices. H_{o2f}: There are no significant differences between the tenure responses with regard to their perceptions on the TNA process and TM practices.	Mann-Whitney test	Supported

5.8 CHAPTER SUMMARY

This chapter discussed the findings of the descriptive, correlation and Mann-Whitney test related to the research study. The findings were reported to incorporate the findings of the literature review with the findings of the empirical research study that was conducted. The following research objectives were presented:

- **Research objective 1**: To investigate the link or relationship between the perception of TNA process and TM practices within the HSU environment.
- **Research objective 2**: To measure the perceptions of administrative staff and determine their needs in terms of the TNA process and the TM practice at the HSU.
- **Research objective 3**: To evaluate differences in the TNA process and TM practice in terms of certain demographic variables (age, gender, job title, educational level, job level and tenure) as established in a census sample of participants in the HSU environment.

Chapter six focuses on research objective 4, namely, to formulate recommendations to ensure that the training and management of talent for the administrative staff are integrated into development plans of employees in the university.

CHAPTER 6

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

The primary aim of this study was to investigate the link between the TNA process and TM practice of administrative staff in an HSU environment. The study reviewed relevant literature and employed suitable research methods and data collection instruments in order to ensure that the envisaged hypothesis are a success. The previous chapter presented the findings of the statistical data analysis relating to the purposes of the research study. This chapter provides concluding remarks on the study and all other important discussions that have been stretched with regard to the literature review, research philosophy and the findings of the study, among other aspects. Furthermore, the chapter discusses the limitations of the study as well as possible suggestions to mitigate the limitations. Finally, recommendations will be presented for future researchers and interested parties to pursue follow-up studies in the area of TNA process and TM practice.

The research questions of the study as outlined in chapter one were as follows:

6.1.1 Research questions relating to the literature review

- How are the two constructs of the TNA process and TM practices conceptualised and explained by theoretical framework in literature?
- Does a theoretical link between the perception of TNA process and TM practices exist?
- What are the different theoretical frameworks governing the TNA process and TM practices?

6.1.2 Research questions relating to the empirical study

- Is there an empirically tested relationship between TNA process and TM practices at the HSU?
- What are the differences with regard to biographical variables (age, gender, job title, educational level, job level and tenure) of the TNA process and TM practices?

In this chapter, the research questions were answered.

6.2 CONCLUSIONS

Conclusions of the research study were drawn based on the empirical results of the research project and following the objectives of the study as indicated in Chapter One.

6.2.1 Conclusions relating to the literature

This study investigated the link between the perception of TNA process and the TM practice of administrative staff in an HSU environment. Below, conclusions are drawn on each of the particular objectives:

Research aim 1:

- To conceptualise the two concepts of TNA and the TM practices from theoretical models in the literature.

Construct 1: The TNAM was envisage in Chapter Two. The concept was based on the three-level O-T-P model of organisation, task, and people or individual analysis (McGehee & Thayer, 1961; Mager & Pipe, 1984; Rossett, 1987; Rummler & Brache, 1995; Taylor et al., 1998; Leigh et al., 2000). Subsequently, the following conclusions were drawn:

The O-T-P three-level conception of needs by McGehee and Thayer (1961) is considered the core framework for needs assessment in the theoretical literature (Holton et al. 2000), and the several models developed, have since been based on this three-level framework (Mazhisham et al., 2018; Rikkua & Chakrabartyb, 2013). Furthermore, Clarke (2003) stated that the O-T-P model integrated macro through to micro-analyses. This arises from an investigation of training needs to meet organisational needs, task, or job needs through to the specific needs of the individual or person. The model shows that the training programmes should start on the foundation of the TNA that should cover organisation, task, and the individual's aspects of the organisation. The organisational analysis consists

of, firstly, considering how employee training can help to achieve organisational goals, and secondly, training is needed in the organisation.

Generally, the TNAM approach is aimed at improving the nature of the training and development performed through enhancement of TM. As a result, the model suggests the succeeding six core dimensions as the key need:

- Person/individual analysis – focuses on identifying who should be skilled and what training is required by the individual.
- Task/operational analysis – entails setting performance standard or criteria, describing tasks to be completed.
- Organisational analysis – refers to internal organisational environment that affect the achievement of organisational goals, that has been recognised in accordance with the vision and mission of the organisation.
- Task significance – refers to the influence that the job has on those who get advantage from the support provided on the task and leading to better meaning.
- Autonomy – reason the measure to which the needs permit worker and individuality in planning the training, making decisions and choosing the approaches utilised to carry out the jobs.
- Feedback – includes understanding of the results of training that was finished.

The existence of the six core dimensions in some of the TNA processes may result in the employee be subjected to their training need as important and feeling accountable for the results. In such a case of administrative staff, the training needs such as language, communication, and technology skills are very critical for office work equate to the dimension of individual analysis. Individual analysis has an impact on autonomy and discretion in the choice of the technical skills applied to do office work, and consequently gives administrative staff switch over their computer-generated work skills. Successively, the measurement of task significance and task analysis are depicted inside the office work. Ultimately, the administrative staff develop the knowledge of the results of their job from line managers who benefit from their services. If this dimension of individual analysis is present, then the administrative staff will experience the level of TNA process on all three O-T-P model. Because of this, it is evident that the TM is still influential in the discipline of TNAM, especially in talent development. This model was extended to the TNA process of administrative staff to examine the existence of the six core dimensions.

Construct 2: TM was envisage in Chapter Three. The concept was based on procedures of the TM wheel which divide important elements of TM into the TM practices and the guiding principles (Stahl, et al., 2012). Literature indicates that each organisation should align its TM practices with the organisational strategy and values (Al Ariss et al., 2014). The conclusions below were drawn:

TM is the process through which organisations anticipate and meet the needs for talent in strategic jobs. Therefore, TM represents a component of the HRD strategy which summarises the organisational policies and administration supporting the accomplishment of TM activities (Cappelli & Keller, 2014). Generally, TM is the pool of activities that are instrumental in attracting, selecting, developing, and retaining the best employees in strategic roles. In this study, these TM activities are influenced by four dimensions of TM practices, which are as follows (Stahl et al., 2012):

- Talent development – focuses on experience-based development with on-the-job learning as one of the development processes in a cost-effective manner.
- Talent selection – refers to the process of assessing and aligning employees for future positions based on the future organisational design and the selection criteria.
- Talent utilisation – refers to the process that aims to complete practice, realise talents value and improve talents quality by creating an external environment and conditions which are a benefit for talents, following talents activity routines, and establishing mechanisms to stimulate their potentials and qualities.
- Talent retention – refers to the interventions adopted by the institution that facilitates employee's fulfilment and meaningful employment for a sustained period.

In conclusion, the abovementioned dimensions of TM practices need to be aligned to the guiding principles of organisational strategy and values. HSU administrative staff are geographically dispersed and physically separated within the different departments and schools. Thus, dimensions of technological and technical support, including organisational ones are paramount to TM practice as they enable it to adapt to altering business conditions and revamping their talent approach when required. Considering the findings of the study, it is suggested that the support mechanisms should be made

available and used within the separated and dispersed departments and schools of the administrative staff.

Research aim 2:

- To conceptualise the theoretical link between the perception of TNA process and TM practice.

The theoretical link between the perception of TNA process and TM practice was explained in the summation of the conceptual framework. The conclusions below were drawn:

The TNAM affects a variety of needs-related outcome such as TM. These are interceding by the inspirational possessions establish in the five core dimensions of the training needs. This training needs to stimulate critical management of talent where employees observe their job as important, feel accountable for the outcome, and have response on their job. A planned TNA process and TM practice linked with the goals of the organisation, would address the identified talent gaps of employees by providing training as the solution.

Research aim 3:

- To conceptualise the different theoretical frameworks governing the TNA process and TM practices in terms of literature.

Conceptualisation of different theoretical frameworks governing the TNA process and TM practices were presented in the conclusion of the conceptual framework. The conclusions below were drawn:

The concepts of TNA and TM reveal the needs pertinent to responses to the work and the institution. In favour of the needs replies, investigators on organisational analysis have established the theoretical framework between the two concepts. Therefore, workers who identified the relevant training, will develop, nurture talent, and enhance performance within their organisation.

6.2.2 Conclusion relating to the empirical results

There are no significant mean differences among administrative staff who hold undergraduate and postgraduate qualifications, respectively. Academic qualification revealed that 31% of the administrative staff were having a diploma as undergraduate degrees. Job level revealed that 28% of the administrative staff are on Peromnes level 12. Work experience revealed that 44% of administrative staff has work experience of 5-9 years. Most of the administrative staff are at the school of medicine with 57.7%.

The biographical results were simply important to the inferential analysis of data, and that was with regards to the strategic difference. Therefore, there were limitations with regard to the effect on the key concept of the research. The strategic difference for age disclosed that 36.8% of the administrative staff were among the age of 35-41, therefore, decreasing in the group of the young generation of effective staff. On the other hand, the important result of sequential age comparative to the TNA process and TM practice within the administrative office job was examined. The results revealed that there is no significance age difference with regard to their perception on TNA process and TM practice. The empirical aims of this study were as follows:

Research aim 1

In order investigate the statistical nature of the link between the TNAM process (signified by five key dimensions, namely: feedback, organisation, task significant, task analysis, and individual analysis) and TM practice (represented by talent development, talent selection, talent utilisation, and talent retention) from a census sample of participants working in the offices of different departments and schools at the HSU. The empirical results supplied supportive evidence of the hypothesis H_{o1}.

Hence, the empirical findings affirmed a strong, significant, and positive relationship among TNAM and TM. The EFA conducted with for the TNAM discovered that the link with TM is based on feedback, organisational analysis, task significance, and task analysis.

In the initial index, task significance had strong factor loadings (3.754) and task analysis had the lowest (3.195) factor loadings. However, under the four-dimensional TNA,

organisational analysis had the strongest (0.908 Cronbach's alpha) factor loading followed by feedback (0.907 Cronbach's alpha). The factor extraction on the main dimension of autonomy and individual analysis indicated very low loadings and was then suppressed in the last output.

The findings of the strong, significant, and positive relationship propose that the administrative staff's TNA process has been identified to perform their organisational and tasks appropriately based on their office work. This was ascertained regardless of the missing individual analysis result on the TNA-4 score. This is contrary to Balisi's (2014) findings. He found that organisational analysis and task analysis are seriously neglected or missing.

The positive findings establish in this research are ascribed to feedback. The dimension had a strong factor weighting which augmented the identified training needs effect of the general TNA-4 score, and this contributed to the positive correlation using TM. This suggest that feedback inside office work environment is a critical success factor compensating for the physical presence and enhancing social support, communication, and trust. In summation, there is a need to expand feedback channels to all sources, including managers, service recipients and other co-workers (Collins, Hilslop, & Cartwright, 2016).

The retained structure of TNA comprising of four new dimensions was tested for reliability and it was subsequently established that the structure produced an acceptable reliability score. These TNA processes were establish to be dependable and the extent of administrative staff's training needs with regard to the four factors (Feedback, organisational analysis, task significance and task analysis) had identified needs that evident in the TM in their workspaces.

Moreover, the findings affirm the administrative staff’s inspiration to attain psychological growth, which refers to their growth need strength (GNS). Bakker and Demerouti (2014), indicate that the employee's GNS are unable to function in a setting that is described by tight control. This means that even though autonomy was restricted in this study, the structural transformation fostered cognitive talent growth of administrative staff. To some extent, administrative staff have the privilege to identify their training needs to manage their talent.

A correlation between TNA and TM was conducted. Afterwards, a significant positive relationship was found between the TNA and TM variables. In conclusion, the TNA process encompasses the actions achieved working under particular circumstances, and the TNA process impacts TM practice positively. Further statistical analysis was conducted to test the relationship among the TNA process and TM practices. A strong, significant, and positive relationship was subsequently found between the TNA process and TM practice.

In summation, the findings explain how external events, such as feedback, organisational analysis, task significance, and task analysis take on talent development significance that motivates TM in administrative staffs directly influencing their commitment to the institution. It is indicated differently that, to commit to their institution, workers should identify their individual needs, and affection for the institution is depending on the task activities executed and the nurturing of talent.

Research aim 2

To investigate if differences exist between TNA (feedback, organisational analysis, task significance, task analysis, and individual analysis) and TM (talent development, talent selection, talent utilisation, and talent retention) with regard to biographical variables (age, gender, job title, educational level, job level and tenure). The following hypotheses of the group differences below were drawn:

- **H_{o2}**: Differences do not exist in the TNA process and TM practices in terms of the demographic variables.
- **H_{a2}**: Differences do exist in the TNA process and TM practices in terms of demographic variables.

The findings found that there are no significant differences between the mean scores of the TNA process and TM practices of female and male administrative staff members, and no significant differences between the administrative officer and secretary. The following demographical groups of the null hypothesis was affirmed:

- **H_{o2}**: Differences do not exist in the TNA process and TM practices in terms of demographic variables.

The findings found that the effect of the TNA that accompany with the office workspaces conditions have no significant difference effect on the levels of TM among female and male administrative staff. However, the literature indicates that concerning gender, there is an unequal representation of females in secretarial and office administration work across the world (Servon & Visser, 2011).

The conclusion may, therefore, be made that there are no significant differences between female and male administrative staff's perceptions of the TNA process and TM practices. Furthermore, the tenure in years of administrative staff with long years (6-10 years) of service do not differ significantly from those with relatively short (0-5 years) service of administrative staff in years.

When it comes to office work, there was no significant dissimilarity between the female and male positions at the institution. It is therefore recommended that there should be more opportunities for both males and females to persuade them by organising workshops, seminars, and conferences. Although the occupation by gender is changing, numerous people still perceive the secretary and administrative officer as a female orientated profession. Males have been under-represented for many years in the administrative support and this is still the case currently.

Commonly, most administrative work is dominated by females (Van Antwerpen & Ferreira, 2016). However, it does not mean that female administrative staff is more competent or talented than male staff. Still, the secretarial and administrative job roles are still viewed by many as "female" jobs. The influence of the benefits such as task analysis on TNA was investigated in the current study. The findings found that there are no significance differences among the mean scores of female and male administrative staff's perception of TNA process and the TM practice. It is concluded that there is no difference in the TNA process and TM practices in terms of demographic variables of gender and job title.

With regard to age, chronological age has an influence in how employees reply to the structure of their office workspaces. Elder and young employees from different generational groups may reply in a different to the same TNA, especially in an office workspace structure where training plays a major role. Although, there was no planned

construct when it comes to chronological age. As such, the predictive effect of generational groups like ages between 34 years and younger, 35 to 41 and elder employees was under investigation for the key concepts of the research study. The results revealed that there are no differences in the TNA process and TM practice in terms of age.

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Academic qualification is connected to educational level, and adopts the employee's needs on the profession as opposed to the hiring institution. The needs to their occupation was under review, since this has shed light on the mean differences between administrative staff who hold qualifications in categories of undergraduate and postgraduate degrees. Therefore, the conclusion is that there are no differences in the TNA process and the TM practice in terms of educational level.

Research aim 3

In order to make recommendations and to ensure that training and management of talent for the administrative staff are integrated into the development plans of employees at HSU. The following hypothesis was affirmed:

H_{a3}: Administrative staff at HSU perceive that the current TNA process and TM practices are not adequate.

The findings found that the predictive effect on their perceptions of the TNA process and TM practices have no significant differences between the administrative officers and secretaries. Therefore, the conclusion from the Mann-Whitney statistical results for significant mean differences of administrative staff's perceptions on the TNA process and TM practices perception are adequate. The empirical study provided supportive evidence for the H_{a3}, therefore H_{a3} is accepted. The empirical findings provide awareness into the relationship dynamics between the training and management of talent in terms of TNA process and TM practices. The information derived from the findings may add a broader perception on how individuals' training influences their ability to manage their talent. Furthermore, the empirical relationship between training and management of talent could be used by managers in line with HRD section and management to integrate the development plans of administrative staff at HSU.

6.3 THE SIGNIFICANT CONTRIBUTION OF THE STUDY

This research study presents the conclusions with regard to contributions to the section of HRM and HRD. As a result, the contributions made related to theoretical, empirical and methodological also as applied perspectives are discussed.

6.3.1 Theoretical contribution

This study is significant from a theoretical perspective as it conceptualised the constructs of the TNA process, talent and TM practice of administrative staff within HSU environment. Thus, the study adds value to the body of knowledge by adopting the needs of the workplace and the theoretical models contributing to the TNA process and TM practice. In particular, the three O-T-P model and the TM wheel were important in supporting the predictable training needs of office employees like the administrative staff.

The dimensions of the models were critical for examining the link between the TNA process and TM practice; and shedding light in the way administrative staff at HSU relate, work and communicate with their line managers and heads of departments. In building this theoretical contribution, critical shareholders could had a significantly improved understanding of how the administrative work environment may impact on the TNA process and TM practice of support staff such as administrative staff at HSU. The HSU, on the other hand could establish appropriate training and TM guidelines or procedures.

6.3.2 Empirical contribution

This study methodologically, contributed by empirically testing the validity and reliability of the dimensions of the TNAM in the administrative workspaces at HSU. The measure found a scientifically strong, significant, and positive relationship between the perception of TNA process and TM practices of administrative staff at an HSU environment. The extracted four-dimensional model creates an opportunity for more research study on the subject of training needs and its effect on development of talent like TM. This model of office workspaces could be extended and developed further.

6.3.3 Practical contributions

The findings of this research could create a significant practical contribution which can be used to the department of HRM and HRD section. Practitioners in the field of HRM and the HRD might create reference to the study results and take awareness of the talent development impact that TNA has in the office workspaces. HSU should identify a talent by using university's capabilities and potential to meet the current needs. Furthermore, it integrates talent planning on personal development goals of the employees such as administrative staff within the university's strategy. Thus, the employment link that develops inside the office workspaces findings in new dimensions that influence the nurturing of talent development and management of talent. The findings of this research inspire applied consideration of human resource methods with regard to support and policies that can increase the TNA process and TM practice for administrative work, thus offsetting administrative staffs' intention to leave. In the context of this study, this approaches should aim at developing administrative staff's support, progress, and commitment to the HSU environment.

6.4 LIMITATIONS

Limitations are restrictions in the study. The following limitations of the literature review and the empirical investigation are presented below.

6.4.1 Limitations of the literature review

In this study, theoretical models were operationalised mainly in old-style workspaces environment. The dimensions are perceived to be restricted to the physically work environment. Like, the dimension of social support from the line managers is an interpersonal aspect forming part of operational circumstances is mainly perceived to exist in physical workspaces. Subsequently, the models were restricted for capturing the noticeable aspects of the office workspaces.

6.4.2 Limitations of the empirical study

The limitations of this research were that it was conducted in one institution of higher learning in Gauteng province, and therefore the results cannot be generalised to all the

institutions/universities and administrative staff or for the country, South Africa. Only the administrative staff were included in the study. Including Human Resources Managers who are involved in the TNA process and TM practice could provide a bigger sample and more comprehensive results. In this study the census sample size was adequate, the survey was distributed to all 200 respondents. However, only 163 responses were returned, where this represents 81.5% response rate that had influence on extraction factors. As such, only a four-factor TNAM was extracted (TNA_4), for the dimensions of individual analysis and autonomy were excepted.

The absence of individual analysis may propose that administrative staff cannot claim accountability of identifying their personal development plan of office workspaces from the beginning to finish. However, this is restricted to the need's analysis according the employees' performance, attitude, and observations. To some extent, this makes ambiguity and then represses the role clarity. The role of administrative staff is confined to the key constituent in higher education institution because they are responsible to taking care of the day-to-day operations of the institution. As such, completion of tasks inside the office, using computer skills, as well as effective communication via emails, teamwork and computer-generated collaboration seems to have inhibited as research of individual analysis shows.

Autonomy was restricted to approaches for executing task undertakings. This reflects an overall measure of the TNA dimension. As such, autonomous factors prevailing within office workspaces, day to day operations, were sparingly investigated. Moreover, the key constituent inside office work is mediated by technology and therefore requires different skills related to the jobs of administrative employees include, but not limited to typing, computer literacy, numeracy, communication, planning and time management skills (Van Antwerpen & Ferreira, 2016). Such different skills prompt administrative staff to be active and able to craft their job. Job crafting has an part of autonomy; however, it did not form part of the key construct under the study (Nicholson, 2010). Considering the abovementioned proposes that the investigation of job autonomy was very restricted to the study.

In terms of organisational support, procedural and technological support is considered as a successful predictor of TM in the office workspace. Such support helps in the creation of development and nurturing talent. However, in this research, the dimensions were

connected to the TM construct. Somehow this was not inhibiting, and would not be the reason why development and nurturing talent were internalised as talent development as opposed to talent utilisation and talent selection within the EFA.

6.5 RECOMMENDATIONS

The findings of the research found that the development of organisational analysis has changed the TNA. In order to capture the noticeable aspect of the altering TNA process, employees who occupied the new occupations are in a better place to share valuable insight about the TNA process and the results of the new dimensions. The research questions integrating literature review and empirical study were as follows:

- what recommendations can be formulated for conducting the TNA process and TM practices of administrative staff in a higher education setting?
- what recommendations can be offered to ensure that TNA facilitates TM of the administrative staff within the university?

Consequently, the abovementioned recommendations were achieved and recommendations were made as follows:

6.5.1 Recommendation for practice related to TNA process and TM practice in a higher education setting

- In considering the restrictive effects induced by the shortage of suppression for some of the dimensions of the TNA, it is essential for the organisation to counter plate the empirical aspect of training needs. The suppression of individual analysis and autonomy in the EFA proposes that the parameters of the TNAM need to be stretched to suit specific training needs. Which this case is the office workspaces at the HSU. More attention needs to be given to affecting the TNA processes within organisational setting and to develop a link between theoretical formulations and practical applications of TNA.
- Application of prescriptive TNA formulae could be improved by expanding their scope to encompass the organisational context in which decisions are made.

- The administrative staff should continuously be given training for their identified training needs in order to improve, develop and nurture their talent in their office work environment.
- The TNA process could be applied by the HRD managers on all three-level of O-T-P model throughout.
- Exchanging information through conferences, workshops, seminars and training talent development could increase the intensity of awareness and participation in TM.
- The TNA process and TM practice should continue to expand and be used to help set training objectives in line with the real needs of administrative staff. Therefore, by exploring TNA process and TM practices of administrative staff at the HSU, a reduction in unacceptable work performance will hopefully be witnessed.
- Each employee in all the departments or schools of the university should be involved in the TNA process and TM practice and the entire exercise should be regular, thoughtful, purposeful and open. The TNA process should be assessed jointly by the line manager including top management and human resource department to ensure that budget for training and nurturing talent is provided.
- The university should identify customer care training for the administrative staff as is an important and a required skill for them.
- The university should invest TM in relation with Performance agreement.

6.5.2 Recommendation for integration of the TNA process and TM practice within the plans of the university

- The TNA process and the dimensions of TM practice for the administrative staff should be written down so that they can be connected to the strategic goals and aims of the university. Talent development and talent selection constitute a large contribution to administrative staff's training needs levels; therefore, TNA process and TM practice should be linked within the identified training needs plans of the university.
- The university management should follow the required TNA process and TM practice of the administrative staff and ensure that their training needs are linked with the task and individual analysis to achieve organisational goals.

- This study recommended that there should be a formulation of appropriate TNA process and TM practice policies by the stakeholders. This will facilitate the adequately address of the training needs and framework on how to conduct and implement TNA successfully.
- Both employees and management will experience the significant of training, talent development and nurturing talent of the general administrative staff to achieve the organisational goals and objectives.
- The university needs to enhance their TNA process on individual analysis for the administrative staff by analysing the actual knowledge, skills, and current performance of each employee while performing tasks to determine who needs training and in which area/s in order to provide the training.

6.5.3 Recommendation for future research

Further research is needed on the following:

- The experiences of other staff members within the HSU on the TNA process and TM practices.
- Evaluation of HRD staff knowledge on TNA and TM in relation to university procedures.

6.6 CHAPTER SUMMARY

The results of this study revealed a need for standard guidelines or procedures for TM and TNA at HSU. The objective of this study was to investigate whether TNA process and TM practices of administrative staff are linked within an HSU environment. The results confirmed that there is a significant relationship between the TNA process and TM practice in the HSU. The implication for this study is strengthening the TNA and TM for all staff or communities at large at the HSU. This completes the research project.

6.7 COMMUNICATING THE RESULTS

Communicating the results involves the development and distribution or giving out of a research report to appropriate audiences. The researcher will communicate the results of the study to others who may find it useful. The results of the study will be communicated

through the research report which will be sent to the Head of HRD at the HSU; as well as through publication of the research in scientific journal or even presentation at relevant forums such as workshops, conferences, congresses and updates for human resources development.

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ANNEXURES

ANNEXURE A: Ethical Clearance (Unisa HRM Ethics Review Committee)

UNISA university of south africa

UNISA HRM ETHICS REVIEW COMMITTEE

Date: 03 October 2019

Dear Mrs Heriet Nancy Matlakala

Decision: Ethics Approval from October 2019 to December 2022

NHREC Registration #: (if applicable)

ERC Reference #: 2019_HRM_013

Name: Mrs H.N Matlakala

Student: #34620605

Researcher(s): Name: Mrs Heriet Nancy Matlakala
E-mail address, telephone #nancy.matlakala@smu.za, 0725382946

Supervisor (s): Name: Prof A Bezuidenhout
E-mail address, telephone #adele.centurion@gmail.com, 0124293941

Co-supervisor (s): Name: Mrs L Diedericks
E-mail address, telephone #diedel@unisa.ac.za, 0832748027

Working title of research:

Training needs analysis and talent management of administrative staff at a Health Sciences University

Qualification: MCOM

Thank you for the application for research ethics clearance by the Unisa HRM Ethics Review Committee for the above mentioned research. Ethics approval is granted for Mrs H.N Matlakala for 3 years.

The **low risk application** was **reviewed** by the HRM Ethics Review Committee on 21 August 2019 in compliance with the Unisa Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment.

The proposed research may now commence with the provisions that:

1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.
2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the HRM Committee.

University of South Africa
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3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing, accompanied by a progress report.
5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
6. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data require additional ethics clearance.
7. No field work activities may continue after the expiry date December 2022 Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

Note:
The reference number 2019_HRM_013 should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.

Yours sincerely,

Signature
Chair of DREC: Prof M Coetzee
E-mail: coetzm@unisa.ac.za
Tel: (012) 429-3008

Signature
Executive Dean: Prof MT Mogale
E-mail: mogalmt@unisa.ac.za
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ANNEXURE B: E-mail requesting permission to collect data at Sefako Makgatho Health Sciences University

26 August 2019

Prof C. Baker
Acting SMUREC Chairperson
P. O. Box 163
Medunsa
0204

Dear Prof Baker

Re: request for permission to conduct research at SEFAKO MAKGATHO HEALTH SCIENCES UNIVERSITY

I, Heriet Nancy Matlakala, am doing research with Professor Adele Bezuidenhout, in the Department of Human Resources towards MCOM at the University of South Africa. We are inviting you to participate in a study entitled training needs analysis (TNA) and talent management (TM) of administrative staff in a Health Sciences University (HSU). The aim of the study is to investigate whether TNA process and TM practice are linked within an HSU environment. To determine how TM practices and the TNA process influence one another within HSU environment from administrative employee perspective. Also to measure the perceptions and determine the needs in terms of TNA process and the TM practices of administrative staff at an HSU.

Your university has been selected because it is an institution that has the required sample size of administrative staff. The study will entail a quantitative approach using a cross sectional research design. Briefly the study subjects will be provided with a 20 item self-administered on-line survey questionnaire specifically designed for the study. Then the study subject responses will be analysed using a cross Statistical Package for Social Science (SPSS) package. Informed consent will be sought from all the participants. By agreeing to grant permission for this survey to be disseminated, you agree that the information you provide may be used for research purposes, including dissemination through peer-reviewed publications and conference proceedings.

It is anticipated that the information we gain from this survey will help us to promote TNA process awareness to develop and TM practices of administrative staff and to amend policies regarding TNA process and TM practices of administrative staff. It will also provide insights into the training

needs and talent management of staff following a de-merger or organisational change, especially within a HSU environment. Potential risks associated with the study include the fact that participants may know the researcher and may not be willing to participate.

Research findings of this study are imagined to be useful in empowering management at HSU to encourage and satisfy the needs and talent management of their employees. By exploring the training needs and talent management at HSU, a reduction in unacceptable work performance will hopefully be witnessed.

The researcher does not foresee that HSU will experience any negative consequences by completing the survey. The researcher undertakes to keep information provided herein confidential, not to let it out of our possession and to report on the findings from the perspective of the participating group and from the perspective of an individual. The researcher would like to request the email addresses and assistance with identification of participants via gatekeeper (Marketing and Communication department) to send emails with a link of survey monkey questionnaire to the participants.

The records will be kept for five years for audit purposes where after it will be permanently destroyed and electronic versions will be permanently deleted from the hard drive of the computer. You will not be reimbursed or receive any incentives for your participation in the study.

The research will be reviewed and approved by Unisa Ethics Review Committee. The primary researcher, Mrs HN Matlakala, can be contacted during office hours at 012 521 4054. The study leader, Prof Adele Bezuidenhout, can be contacted during office hours at 012 429 3941.

Kind regards

Heriet Nancy Matlakala
Skills Development Facilitator

ANNEXURE C: Permission granted to collect data at Sefako Makgatho Health Sciences University

SEFAKO MAKGATHO
HEALTH SCIENCES UNIVERSITY

Postgraduate Studies, Research Development, Integrity & Ethics
Sefako Makgatho University Research Ethics Committee (SMUREC)

Ms HN Matlakala
Department of Human Resources
P.O Box 68
Medunsa
0204

Dear Ms HN Matlakala

RE: MS HN MATLAKALA – REQUEST TO CONDUCT RESEARCH AT SEFAKO MAKGATHO HEALTH SCIENCES UNIVERSITY

SMUREC **NOTED** your email dated 27 August 2019, requesting permission to collect data at Sefako Makgatho Health Sciences University.

SMUREC **NOTED** that the researcher has already received approval for her proposal from University of South Africa Human Research Ethics Committee (Medical). The SMUREC reciprocates the approval.

Study Title:	Training needs analysis and talent management of administrative staff at a Health Sciences University
Researcher:	Mrs HN Matlakala
Supervisor:	Prof A Bezuidenhout
Co-supervisor:	Mrs L Diedericks
University:	University of South Africa
Research Type:	MCOM
ERC Reference #:	2019_HRM_013
Approval letter date:	23 August 2019

SMUREC **NOTED** and **GRANTED** the researcher permission to collect data at Sefako Makgatho Health Sciences University for the above mentioned study.

Yours Sincerely,

PROF C BAKER
ACTING CHAIRPERSON SMUREC

05 September 2019

SEFAKO MAKGATHO
HEALTH SCIENCES UNIVERSITY
SMU Research Ethics Committee
Chairperson
Date: .....

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ANNEXURE D: Consent letter (administrative staff member)

Dear administrative staff member

We are interested in understanding the elements of training needs analysis and talent management of administrative staff at a Health Sciences University (HSU). The study will be used for the Masters Dissertation and publication by the researchers. Furthermore, the study will benefit the university to explore and improve implementation of best practices of training needs analysis and talent management. Please note the following information regarding your participation in this study:

Confidentiality of information received from you will be highly maintained.

Your name will not appear anywhere in the research and you cannot be identified in person on the basis of your answers. The researchers do not foresee any risks for you as a respondent in this research project. You will not be required to make any financial contribution to the study.

Your participation in this study is voluntary, and it will only take approximately 25 minutes of your time. However, you are encouraged to participate as the findings of this study will enhance the performance of the entire administrative staff.

You have the right to withdraw at any point during the study, for any reason, and without any prejudice.

You are free to contact the researchers at any time during the research if you have any questions or if you need more information about this study:

nancy.matlakala@smu.ac.za Tel: 012 521 4054
bezuia@unisa.ac.za Tel: 012 429 3941

In order to indicate that you have read and understand the information given above click either one of the two choices:

I consent, begin the study I do not consent, I do not wish to participate

ANNEXURE E: Questionnaire

SECTION A: DEMOGRAPHIC INFORMATION

Kindly fill the information below pertaining to your profile. This information will only be used for research purposes. Only the results of this study will be shared with Health Sciences University management for the purpose of improving organisational efficiency. Please do not write your name or any other information that may facilitate tracing your identity. Please tick below.

1. Gender
    - Female
    - Male

2. Age in years _____

3. Job title
    - Secretary
    - Administrative Officer

4. Academic Qualifications
    - Certificate
    - Diploma
    - Degree
    - Honours
    - Masters
    - PHD

5. Job level
    - Peromnes grade 11
    - Peromnes grade 10
    - Peromnes grade 09
    - Peromnes grade 08

6. Work experience in years _____

7. Please indicate your department or school _____

8. Please indicate how long you have worked at the Health Sciences University
   _____

9. Please indicate the number of years in your current position_____

10. Identify your training needs _____.

SECTION B: TRAINING NEEDS ANALYSIS PROCESS EVALUATION

Indicate your perception towards training needs analysis (TNA) practices and process at Health Sciences University (HSU). Tick the correct box.

	Statement	**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
1	Training Needs Analysis at the Health Sciences University is linked to the strategic objectives of the university.					
2	Training Needs Analysis at the Health Sciences University involves the vision and mission of the university.					
3	Training Needs Analysis at Health Sciences University involves the is well funded.					
4	Training is effective if the training outcomes match with the university goals.					
5	Training Needs Analysis information is used to finalise a training plan for the university.					
6	The Training Needs Analysis at the HSU works with the performance management system.					
7	The Strategic Human Resource Development plan is followed at Health Science University.					
8	Training Needs Analysis is part of the Strategic Human Resource Development processes at Health Sciences University.					
9	Health Sciences University's Training Needs Analysis process supports decision about when					

	Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	training is the best option to improve individual performance.					
10	Training opportunities are available for employees to improve their skills with regard to new technology.					
11	Re-training opportunities are available for employees to improve their skills with regard to new technology.					
12	Top management in the Health Sciences University encourages staff participation when conducting training needs.					
13	There is no commitment by top management to carry out Training Needs Analysis.					
14	My department supports me by providing training and development related to my work.					
15	Health Sciences University initiate training and development opportunities for me.					
16	Training Needs Analysis is not conducted continuously.					
17	Training Needs Analysis is not effectively implemented at Health Sciences University.					
18	Training needs are not reviewed annually.					
19	The Training Needs Analysis identifies the type of training that is needed to fill the gap in my job needs.					
20	The Training Needs Analysis process effectively identifies who should be trained.					
21	The Training Needs Analysis process effectively identifies what content should be taught.					
22	The Training Needs Analysis allows the organisation to identify specific training needs that employees may have with regard to a particular skills.					
23	Training Needs Analysis is the right step to design an					

	Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	applicable, cost-effective training programme.					
24	Training Needs Analysis at the Health Sciences University involves only certain group of employees.					

SECTION C: TALENT MANAGEMENT SYSTEM EVALUATION

Please indicate your level of agreement or disagreement on talent management (TM) dimensions practices with each statement. Tick the correct box.

	Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	Health Sciences University identifies talent by using university's present capabilities and potential to meet current and future needs.					
2	The Health Sciences University measures current performance of employees as part of the Talent Management system.					
3	Health Sciences University uses work performance to identifies employees who are talented.					
4	Talent planning at Health Sciences University integrates the personal development goals of employees with the university's strategy.					
5	The Health Sciences University's recruitment strategy is aligned to the talent management strategy.					
6	Recruitment plan at the Health Sciences University is the key business goals to determine the skills and talent required to achieve strategic objectives.					
7	Talent management is regarded as a strategy to identify, develop and retain talent in the organisation.					

	Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
8	The remuneration strategy at Health Sciences University is aligned to the university strategy.					
9	The rewards and recognition system at Health Sciences University is aligned to the university strategy.					
10	Adequate rewards and recognition system is very important to attract talent at the Health Sciences University.					
11	Adequate reward and recognition are very important to retain talent at the Health Sciences University.					
12	Performance management system available at the Health Sciences University.					
13	Performance management system is aligned to the Health Sciences University‘s strategy.					
14	My line manager is able to completely identify talent.					
15	My line manager provides the resources I need to carry out my job.					
16	My line manager organise the required training for me to be able to carry out my job.					
17	I experience a sense of belonging at the Health Sciences University.					
18	I support Health Sciences University's vision for the university.					
19	I am committed to do my job.					
20	I am satisfied that I have adequate skills to carry out my job.					
21	I am satisfied with my talent as anticipated by the Human resource policies.					

	Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
22	I am satisfied with the opportunities to show off my talent.					
23	The culture of the Health Sciences University makes me want to continue working for the university.					
24	The Health Sciences University culture assist employees to feel linked to their institution and job.					
25	Talent management processes at the Health Sciences University support successful talent management.					

This is the end of the survey. I thank you for the time you have taken to participate in this survey.