Assessing training and development trends in the South African Journal of Human Resource Management and the South African Journal of Industrial Psychology from 2003 to 2020

By

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DECLARATION

I Preven Singh declare that

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ACKNOWLEDGEMENTS

<u>DEDICATION</u>

I dedicate this Master's Thesis to my wonderful parents, my late

dad, Mr. Roy Singh and my beautiful mother Mrs. Cookie Singh.

And a very dear friend, the late, Dr. Craig Gokhale.

Thank You for Everything.

ABSTRACT

Key words: training and development, theoretical trends, Empirical Trends, mixed methods approach

In South Africa there is limited research available on the patterns of knowledge production with respect to training and development. This study focuses on assessing and identifying seventeen years of training and development trends in the South African Journal of Human Resource Management and South African Journal of Industrial Psychology for the years 2003-2020. Key empirical trends, theoretical trends, implications for practice and to establish the implications of these trends for future training practice and theory will be identified. A total of 2639 articles from both journals pertaining to various aspects were examined but a total of 88 articles, that dealt with training and development were selected for the study.

It was discovered that, the most utilised research approach in both journals were quantitative in nature. It also lead to reveal that the University of South Africa in both journals have published the most articles, relating to training and development over the last seventeen years, in both journals. It can also be noted the sector that was researched the most frequent was the educational sector across both journals and that Melinde Coetzee (SAJHRM) and Ronel Du Preez (SAJIP) both published 4 articles in the respective journals but Melinde Coetzee has also published 2 training and development articles in the SAJIP as well. The most utilised theory or model were the Model of total rewards in the SAJHRM and Phenomenology & Regression in the SAJIP. It was also discovered that in 2019 the SAJHRM published 11 training and development articles, the highest amount over the 17 years and the SAJIP published 6 in 2010. The themes and recommendations for managers did overlap across both journals as well and there appeared to be common patterns in both journals and some themes like skill shortages seem to in line with international trends and countries experiences the same issues. The following chapter answers the proposed research questions and sheds light on recommendations for the future of training and development in South Africa.

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LIST OF ABBREVIATIONS USED IN THE STUDY

Abbreviation	Meaning
HR	Human Resources
HRA	Human Resource Analytics
ICTs	Information Communication Technologies
SAJIP	South African Journal of Industrial Psychology
SAJHRM	South African Journal of Human Resource Management
SAJEMS	South African Journal of Economic and Management Science
SHRM	Strategic Human Resource Management
UKZN	University of KwaZulu-Natal

LIST OF APPENDICES

CHAPTER 1

INTRODUCTION AND SYNOPSIS OF THE STUDY

1. Introduction

The purpose of this chapter is to give an introduction, background and significance of the study undertaken. An outline of the research problem, the research objectives and summaries of the research chapters are described in this introductory chapter.

2. Background of the study

This study focuses on the evolution of scholarship on training and development in South Africa by assessing two South African Journals namely, South African Journal of Human Resource Management and South African Journal of Industrial Psychology for the years 2003-2020.

These journals were established have been around since 2003 and there has been constant populating of quality articles and it serves as a platform for research relating to people management.

Since the inception of these journals, there have been numerous articles relating to training and development that has been published in these two South African Journals. A total of 88 articles relating to training and development will be extrapolated and analysed from over two thousand articles that make up the total articles published in these two journals over this time period. This will be done to establish emerging trends. Thus the study looks at the evolution of training and development over seventeen years in these two journals

This study will therefore analyse, seventeen years of training and development trends in these two South African Journals. One needs to take into account that a study like this to the best of the researchers knowledge has not been done before.

3. **Problem statement**

Training and development is a subfield of human resource management, yet little is known regarding the evolution over the past seventeen years. The study will focus on assessing training and development trends, that is empirical, theoretical, methodological and implications for practice, seventeen years of training and development trends in the South African Journal of Human Resource Management and South African Journal of Industrial Psychology for the years 2003-2020. The study is critical because it will assist in understanding the health of the discipline with respect to training and development and assist in better decisions being taken in this subfield in South Africa.

4. **Research Questions**

The research questions underpinning this study are:

4.1 What are the key empirical trends in Training and Development from the years of 2003 to 2020 in the South African Journal in Human Resource Management and the South African Journal of Industrial Psychology?

4.2 What are the key theoretical trends in Training and Development from the years of 2003 to 2020 in the South African Journal in Human Resource Management and the South African Journal of Industrial Psychology?

4.3 What are the implications for practice in Training and Development based on these trends in training and development in the South African Journal in Human Resource Management and the South African Journal of Industrial Psychology?

4.4 What are the implications of these trends for future training practice and theory?

5. **Research objectives**

The study will focus on assessing seventeen years of training and development trends in the South African Journal of Human Resource Management and South African Journal of Industrial Psychology for the years 2003-2020.

The objectives of this study are:

- To determine what are the key empirical trends in Training and Development from the years of 2003 to 2020 in the South African Journal in Human Resource Management and the South African Journal of Industrial Psychology?
- To ascertain what are the key theoretical trends in Training and Development from the years of 2003 to 2020 in the South African Journal in Human Resource Management and the South African Journal of Industrial Psychology?
- To determine the implications for practice in Training and Development based on these trends in training and development in the South African Journal in Human Resource Management and the South African Journal of Industrial Psychology?
- To establish the implications of these trends for future training practice and theory.

6. **Significance of the study**

This is the first study as to the researcher's knowledge to examine the trend in training and development within these two journals since 2003 to 2020. By identifying these trends this study contributes by leading toward a better understanding of the trends of the past, present while predicting future trends in training and development. This will be achieved by looking at key empirical trends, theoretical trends, implications for practice and to establish the implications of these trends for future training practice and theory. This will benefit researchers, academics and training a development practioners in understanding trends and offer them the ability to make better training and development decisions.

7. **Summary outline per chapter**

The study consists of a total of seven chapters, each of which is outlined below.
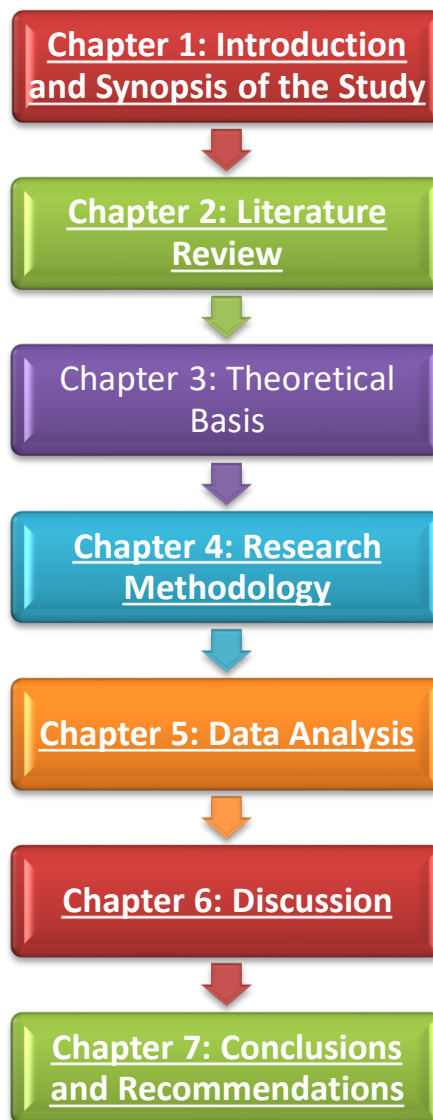
Figure 1.1 Diagram representing the Chapters that follow

Authors Illustration

Chapter one: Introduction

Chapter one provides the reader with the overview of what the entire research entails which in this instance will focus on assessing seventeen years of training and development trends in

the South African Journal of Human Resource Management and South African Journal of Industrial Psychology for the years 2003-2020. This chapter also emphasizes the significance of the entire research. This chapter also provides an outline to the chapters that will follow. This Chapter is structured in two parts. The first part deals primarily with research and parts two discuss the two journals within this study.

Chapter Two: Literature review

The literature review will look at various types of literature to strengthen the research study. This review will enhance the quality of the research. It will also take into account literature regarding training and development and its importance in South Africa and internationally and compare similar studies. This chapter is broken into two parts, the first part relates to research and the second part explores these journals in more detail.

Chapter three: Theoretical Basis

This chapter outlines the conceptual basis used in this study to derive at the findings. The study's framework is structured around seven key characteristics into account, namely, Implications for practice; this is simply the final conclusions, suggestions and recommendations of the study. The second characteristic is key words, this looks at the key words in the data set and will find commonalities, if any regarding the data set.

The third is affiliation; this will look at which universities have been publishing in these journals. The forth characteristic, the empirical trend will reveal the site or population of the articles in the data set. The fifth characteristic takes into account the methodology, this will reveal to us whether the studies in the data set are, qualitative, quantitative or mixed method.

The sixth characteristic is the theoretical trend, this will reveal how many articles in the data set opted for the use of a theory or model and the seventh characteristic will look at the number of authors that are publishing in the data set with respect to training and development.

Chapter four: Research methodology

The research methodology chapter looks at the procedure to collect the various data that makes up the data-set of the study. Additional aspects that are covered in this chapter are the non-probability purposive sampling technique used in this research and various other factors

such as reliability and validity, trustworthiness and credibility, inclusion-exclusion criteria, descriptive statistics and thematic analysis.

Chapter five: Data presentation

The data presentation, chapter consists various tables and figures illustrating the findings of the research and the illustrations are in line with the research questions of the study.

Chapter Six: Data analysis

This chapter discusses all the finding from the data presentation chapter (chapter five). This chapter is vital as it analyses the data and explains the findings from the dataset. The main findings are revealed and the themes appearing in the two journals are examined in greater detail.

Chapter Seven: Conclusion

The conclusion chapter reveals the limitations of this study and also states the recommendations for deliberation regarding future research that might be undertaken. The practical value and implications of the study and the answering of the outlined research questions are answered. While there are adequate literatures to suggest that such a time frame is ample, a longer period would have afforded more information to uncover discernible trends. It is therefore suggested that future studies include a longer time period. The chapters were constructed in a strategic manner to produce the findings and recommendations.

8. Conclusion

In essence, this chapter has offered a broad overview of the study and the entire structure of the remaining chapters that will follow. It gives insight to the main characteristics and reveals the importance of the study and its influence on training and development in South Africa.

CHAPTER 2

Literature Review

2.1 Introduction

This chapter reflects and encompasses the research and the overall research environment being conducted in the field of human resource management and industrial psychology in South Africa. Employee training and development is well adopted and implemented in both private and public organisations worldwide and these organisations pour large amounts of resources and investment into it. The history and similarities, differences and trends, in the sphere of human resource management and industrial psychology will also be elaborated. This provides a good foundation for the understanding of the undertaken research.

One needs to look at as to why would one undertake research. Research ultimately begins by us wanting to know or investigate something. And end up with us having a better and wider understanding with the concept or phenomenon that has been investigated. This study investigates the empirical and theoretical trends as well as implications for practice on managers and implications on future research in the field of training and development.

2.2 Defining Research

Before undertaking this research, it is important to note how research is defined. There are various definitions and plentiful interpretations of the word research available to us. According to Ahmad (2015) the term, research can be defined as a systematic investigation which includes but not limited to including developments in research, evaluation and testing evaluation that leads to the development and involvement to knowledge production This study is constructed in the same systematic way described above, by unpacking the empirical, theoretical trends and the implications for practice and the impact on future research. Another definition of research that fits the structure of this study is revealed below by Bouma and Ling. Research can be systematic and is a process and its objective is to establish facts and derive fresh conclusions. Bouma & Ling (2004) But for this study research relates to both articles and scholarly literature, which have been published.

2.3 Research in South Africa

According to Theresa & Mary (2007) does indicate to us that research and academic illiteracies has changed and expanded over the past two decades tremendously and has encapsulated a number of diverse fields and sub-fields, example: anthropology and socio-cultural studies. This seems to be true in relation to South Africa as well. Ones need to look at the history and state of research in South Africa.

The South African government has a deep history in rendering support to research, especially at public higher education institutions. This support originated in the early 20th century but it can be noted that there seems confusion about the type of support that was rendered s it was extremely poorly documented during this time (Luruli & Mouton, 2016).

In recent times, there has been a massive shift toward the commercialisation of research and has placed immense pressure and demands on academics to boost their actual research output and various publications (Wissing & Du Toit, 2002).

One needs to factor in that publication of academic research greatly contributes to the body of knowledge and that there are various dynamics that actually affect the South African research environment (Jordaan, Wiese, & Amada, 2013).

Overall there are two institutions that are the driving force behind research and development in South Africa at the moment, which are the Department of Higher Education and Training (DHET) and the National Research Foundation (NRF). And in 2003 adopted the approach by where, there would be subsidy allocations for research output while allowing researchers to obtain a rating scale known as Researcher Evaluation and Rating (RE & R) (Jordaan, Wiese, & Amada, 2013).

The rating ranges from A to C, and if a research is given an A rating, for their research initiatives, this means they are universal researchers. This has encouraged researchers, created competition for excellence and also put immense pressure on researchers and academics to deliver and publish in peer review journals.

The diagram below reveals the allocated and funding available to universities and research from government, there has been a 5.4% growth in the financial year 2019/2020 from the previous year 2018/2019 from R 26 795 052 to R 28 252 507 and an overall increase in the higher educational sector of 14.9% (Education, 2017).

Budget category	Budget totals for the university sector				Increase in budget from previous financial year		
	2016/17 (R'000)	2017/18 (R'000)	2018/19 (R'000)	2019/20 (R'000)	2017/18	2018/19	2019/20
1 Block grants for universities	**21 678 098**	**25 322 874**	**26 795 052**	**28 252 507**	**16.8%**	**5.8%**	**5.4%**
1.1 Teaching inputs	13 753 540	16 220 201	17 163 185	18 096 737	17.9%	5.8%	5.4%
1.2 Institutional factors	1 225 710	1 445 538	1 529 576	1 612 773	17.9%	5.8%	5.4%
1.3 Actual teaching outputs	3 512 017	4 310 654	4 561 259	4 809 359	22.7%	5.8%	5.4%
1.4 Actual research outputs	3 186 831	3 346 481	3 541 032	3 733 638	5.0%	5.8%	5.4%
2 Earmarked grants for universities	**6 246 374**	**8 701 418**	**9 313 017**	**9 888 086**	**39.3%**	**7.0%**	**6.2%**
2.1 Infrastructure & output efficiencies	2 422 013	2 541 903	2 688 063	2 838 594	5.0%	5.8%	5.6%
2.2 New universities							
Capital funds (SPU & UMP)	974 736	978 482	980 542	1 044 365	0.4%	0.2%	6.5%
Operational funds (SPU & UMP)	290 429	360 736	436 489	439 812	24.2%	21.0%	0.8%
NIHE Northern Cape Pipeline Students	10 000	6 500	0	0	-35.0%	-100.0%	
Health Sciences Operational (SMU)			120 000	200 000			66.7%
2.3 University Capacity Development	0	225 000	945 000	997 920		320.0%	5.6%
Teaching Development	649 596	510 000	0	0	-21.5%	-100.0%	
Research Development	209 547	165 000	0	0	-21.3%	-100.0%	
2.4 Foundation Provision	319 956	335 794	355 068	374 954	5.0%	5.7%	5.6%
2.5 Clinical Training of Health Professionals	452 406	475 026	502 578	530 722	5.0%	5.8%	5.6%
2.6 HDI Development Grant (8 universities)	433 532	454 992	481 382	508 339	5.0%	5.8%	5.6%
2.7 Veterinary Sciences	149 250	156 638	165 723	175 000	5.0%	5.8%	5.6%
2.8 MBChB students	30 700	27 900	16 700	0	-9.1%	-40.1%	-100.0%
2.9 Interest & redemption on historic loans	4 209	3 647	3 484	3 313	-13.4%	-4.5%	-4.9%
2.10 Zero percent student fee increase	300 000	0	0	0			
2.11 Gap grant for poor & missing middle student fees	0	2 459 800	2 617 988	2 775 067		6.4%	6.0%
3 Grants to institutions	**8 924 157**	**9 881 270**	**10 353 626**	**15 260 489**	**10.7%**	**4.8%**	**47.4%**
3.1 NSFAS - Cape Town	8 893 811	9 849 421	10 319 945	15 224 922	10.7%	4.8%	47.5%
3.2 Institute for Human and Social Sciences	25 081	26 323	27 837	29 396	5.0%	5.8%	5.6%
3.3 African Institute for Mathematical Studies	5 265	5 526	5 844	6 171	5.0%	5.8%	5.6%
4 Sector oversight	**10 000**	**10 500**	**11 109**	**11 731**	**5.0%**	**5.8%**	**5.6%**
4.1 Sector Planning, Monitoring, Evaluation & Support	10 000	10 500	11 109	11 731	5.0%	5.8%	5.6%
TOTAL	**36 858 629**	**43 916 062**	**46 472 804**	**53 412 813**	**19.1%**	**5.8%**	**14.9%**

Figure 2.1: Diagram showing State Budgets of the University Sector

Source: (Ministerial Statement 2017 p. 4)

It is important to note how research is structured in South Africa and how it is progressing. It is becoming apparent that research and publication in South Africa is growing and is having a valuable impact on the lives of people. As shown that there is an increase in investment and overall budgets, into research and development in South Africa.

2.4 Research Journals in South Africa

Over the years, there has been massive development in the number of journals in South Africa and has contributed widely to world research. The DHET are the governing body that ultimately controls the journals and provides an accredited list every year, usually in January.

The list gives the researcher a complete guide as to which journals are accredited for use, the date these journals are reviewed, frequency of publications and editors and authors details (DHET: 2020). The diagram below shows a part of the 2020 list. In this study the two South African journals, SAJHRM and SAJIP were used to collect and analyse the data

Figure: 2.2 Diagram (Screenshot) representing a part of a list of accredited Journals in South Africa

Apart from this, accessing journal articles are extremely important as it provides a vital mode of communication amongst scholars, researchers and various stakeholders, especially parties affected by the undertaken research (Pouris, 2015).

Taking this into account Pouris (2015) states that there are two approaches with respect to assessing journals and they are expert opinion analysis and citation analysis. As stated previously that university and researchers obtain funding from government depending on their output of research and the quality of that research while taking the rating scales into

account, therefore South Africa's stance in maintaining and succeeding high quality research is vital and these two approaches assist in doing that.

Expert opinion analysis takes subject matter experts, example deans of faculties and other academics in the field to carry out the actual assessment of the journal (Pouris, 2015).

Now this entails that all the analysis done by these subject matter experts is to be collected and taken into consideration and then an overall opinion is formulated. There are also disadvantages to this approach, and according to Pouris (2015) whenever opinions are formulated a door opens up to rater bias and this can somewhat skew the results or give unfair reflections on the assessments.

The other approach as stated is the citation analysis. This approach entails that journals are put into ranks (a ranking system) and the as individuals utilize the research, they then acknowledge the source, that is the author (Pouris, 2015; Pouris, 2015).

This approach is based on the frequency of source being acknowledge and at the end of the year this is calculated but again there are also disadvantage and according to Pouris (2015) reveals that there can be room for duplication and can cause an inflated total at the end of the year.

But taking all this into account, South Africa boasted a healthy international collaboration percentage, of around 54 % in 2016 and a citation impact of 1.1 in the same year (Mouton, et al., 2019; Mouton, et al., 2019).

The diagram below shows the research output from 2005 to 2017 in South Africa. The year 2005 was the first time the research policy was introduced in South Africa, which was later revised and amended in 2006 (Training, 2019; Training, 2019).

The diagram also shows a steady increase from the year of 2010 to 2016, and in 2015-2016 had the most prevalent increase by 2490.45 units.

This is important to note as the journals used in the study as showed an upward trend in publications. This also reveals the investment into research which impacts South African researcher, scholars and academics as well South African produced journals, that includes the SAJHRM and SAJIP in this study.
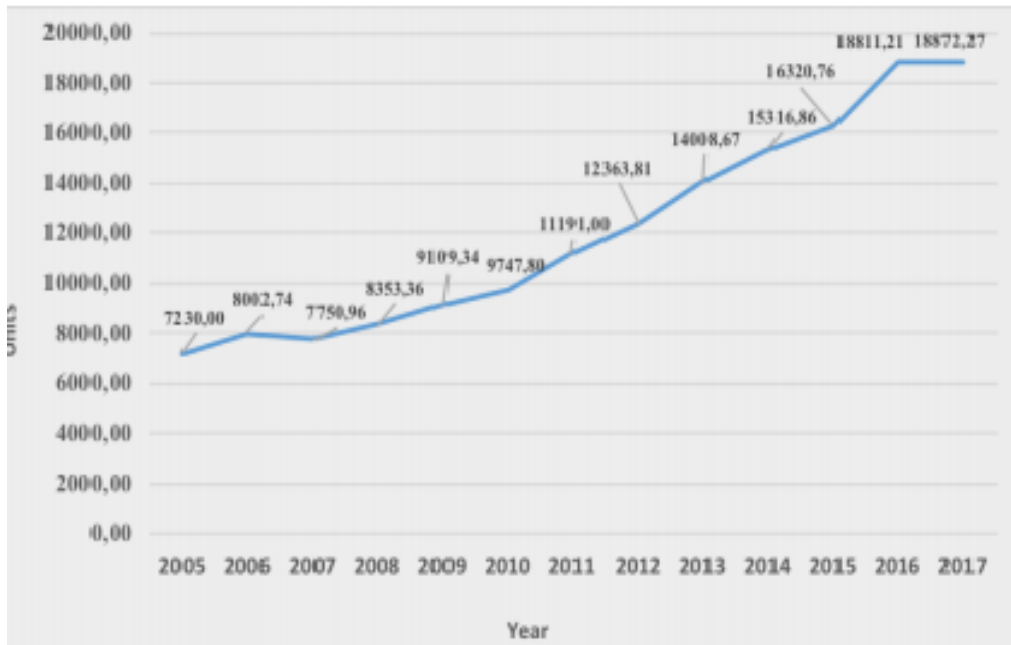
Figure 2.3 Overall view of the Research Publication Output Units 2005 -2017

Source: (Department of Higher Education and Training, 2019, p.32)

On the same token, publication in both books and conferences has shown positive growth as well, publication outputs in books have escalated by 290.68% for book publications and conferences 77.46% (DHET 2018).

Although this increase is substantial, a report released by Mouton, et al (2019) in an in-depth 302 page study indicates that not enough is being done to assist researchers and its total output, especially when it comes to comparing South Africa on the international scale.

Taking this report into account it was revealed that South Africa does invest too little into its Research and Development component. While Gross Domestic Expenditure on R&D (GERD) has increased and GDP Gross Domestic Product has remained steady at 0.8% over the years excluding 2020 due to the corona virus pandemic, South Africa ranked at a mediocre 44 rank with respect to GERD compared to other countries similar to the research system adopted by South Africa (Mouton, et al., 2019). But with this performance, low levels of investment, and researcher capacity, it was found by the same report that overall it performed well.

This can be seen in more detail by the diagram below by comparing South Africa on the international scale. This diagram depicts the size of the circle is in proportion to the yearly spending of that country. The X-axis reveals the spending per GDP and the Y-axis reveals the number of researchers per million people within that country.

As you can see South Africa is seen at the bottom left, clustered with countries like, Iran, Turkey and Egypt. It can be clearly seen that South Africa not only lags far behind the leading countries but is also limited by the number of researchers and has a long way to go with respect to research and development.

To speed up this process the government has developed and implemented many strategic plans to close this wide gap and be more competitive with the rest of the world. The following sections *(Research Infrastructure and Road Map in South Africa)* describe these plans and how South Africa is position on the world map with respect to quality research output. This proves that South Africa is producing good quality research and is fast climbing the ranks and gaining ground across various disciplines.
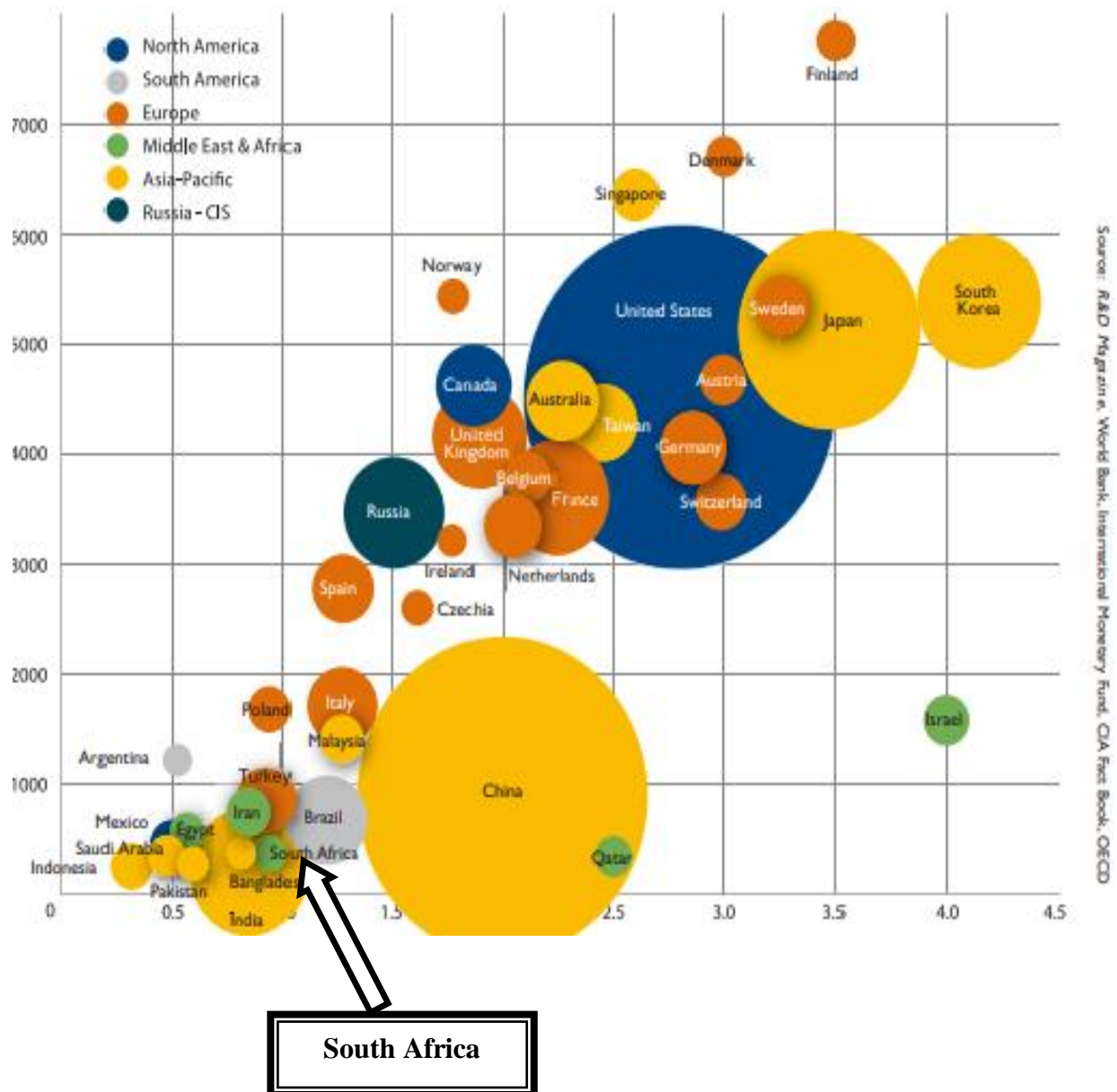
Figure 2.4: Diagram comparing the spending and number of researchers internationally

Source: 2018 Global R&D Funding Forecast Report (R&D Magazine 2018 p. 4)

On the other hand, as seen in the diagram below that South Africa's overall world ranking across all fields, with regard to the number of publications produced, reveals that South Africa is currently ranked at number 28 from 34 in early 2000 and is the highest placed country on the continent (Mouton, et al., 2019). This is vital as the undertaken research utilises two South African journals (SAJHRM and SAJIP) which shows that on the world

rank, research published in South Africa is of a good quality standard and is respected worldwide.

Country	Publications	Rank
United States	424 421	1
China	310 933	2
United Kingdom	128 912	3
Germany	112 399	4
Japan	80 924	5
France	77 346	6
India	75 637	7
Italy	72 690	8
Canada	72 133	9
Australia	68 697	10
Spain	64 618	11
Korea	59 341	12
Brazil	51 306	13
Netherlands	41 973	14
Russia	40 507	15
Iran	38 074	16
Turkey	34 191	17
Switzerland	31 707	18
Poland	30 034	19
Sweden	29 200	20
Taiwan	26 058	21
Belgium	23 236	22
Denmark	19 754	23
Austria	16 881	24
Portugal	15 812	25
Saudi Arabia	15 777	26
Mexico	15 723	27
South Africa	15 550	28

Figure 2.5: South Africa's Overall World Ranking across All Fields

Source: (The state of South Africa's Research Enterprise, 2019, p.63)

Research Infrastructure and Road Map in South Africa

There has always been an ongoing demand for better, more efficient and effective infrastructure of research and research facilities in South Africa and Africa in general. This is absolutely essential and in the process of being both efficient and effective researchers require access to good infrastructure. And in response to this the South African government

opted for a joint venture with the European Union and this gave birth to the South African Research Infrastructure Roadmap (SARIR).

According to Department of Science and Technology (2016) is a framework and systematic strategy to assist in building for the country's future needs. Therefore is ultimate aim is to promote innovation in South Africa and this will have a knock on effect with the rest of Africa and the world.

To assist with the speedy development of research and development in South Africa, the government has currently developed a few strategies to cope with this. These include the white paper on science and technology, the NRDS, which is the national research and development strategy. Thirdly is the National Development plan and finally is the ten year innovation plan.

Scientific domain	Identified research infrastructure
Humans and society	South African network of health and demographic surveillance sites
	National centre for digital language resources
Health, biological and food security	Distributed platform for "omics" research
	Biobanks
	Nuclear medicine research facility
Earth and environment	South African marine and Antarctic research facility
	Biogeochemistry research infrastructure platform
	Expanded national terrestrial environmental observation network
	Shallow marine and coastal research infrastructure
	Natural sciences collection facility
Materials and manufacturing	Nano-micro manufacturing facility
	Materials characterisation facility
Energy	Solar research facility

Figure 2.6: Diagram showing the areas of research for South African Research Infrastructure Roadmap (SARIR)

Source: (South African Research Infrastructure roadmap, 2016, p. 30)

The above diagram indicates the areas of focus with respect to the SARIR, and shows the 5 main domains that will be transformed and developed over the next ten years lining up to the country's NDP 2030. This shows that more investment is pouring into research and development in South Africa, which include the social sciences. Thus understanding trends, for example, empirical and theoretical is vital as to the best of the authors knowledge, this type of research specifically with the training and development in these two South African journals has not been conducted before.

Taking all this into consideration, although growth in publications are not growing fast enough, it can be seen that there has been consistent growth and a genuine shift by all stakeholders to make sure that there is an expansion in research and development in South Africa.

2.5 The history of Human Resource Management and Industrial Psychology

The history of both the human resource management and industrial psychology goes back a long time but the time period from World War II is when transformation in the fields began.

2.5.1 The history of Industrial Psychology

It can be noted, that the development of Industrial Psychology actually started in the 20th century and it's over 100 years old now, with its roots based in the military and has impacted many industries already (Schreuder D, 2001).

According to Schreuder (2001) reveals that there two people that were actually involved in the development in this field, Walter Dill Scott and Hugo Munsterberg, and the work done by them has made inroads in almost every industry. These two individuals were the people that first used the principles and strategically used them in many industries, example: advertising and selling of products.

As revealed that its roots were military based, and was used in World War II and was used to give armies an edge over rebels (Schreuder D. , 2001).This can also be seen by Latham (2007) it started off with soldiers, being tested and the best were then selected to occupy certain positions to give them a strategic advantage. During this time, industrial psychologists applied principles to soldiers and somewhat manipulated them to develop weapons that wasn't even conceived in their minds but ultimately produced (Schreuder D. , 2001). Once

countries saw the edge it gave soldiers, then decided to adopt similar measures and continuously developed.

According to Schreuder (2001), one of the greatest impacts seen by industrial psychology, was in 1924 which is the Hawthorne Studies and has changed the space in which people work and how businesses operate. It added benefits to working conditions and also to implement problem solving to many work related relationship issues.

It has impacted South Africa in many positive ways as well. According to Schreuder (2001) in 1946 it actually spread to South Africa and the National Institute for Personnel Research (NIPR) was created at the CSIR and in 1969 Simon Biesheuvel made inroads in the field and created the Human Sciences Research Council (HSRC).

2.5.2 The history of Human Resource Management

Just as in with industrial psychology, human resource management dates back quiet some time, right back to the prehistoric days. According to Tubey, Rotich, & Kurgal (2015) although there have been numerous attempts to decode the history of human resource management, there has been progress and goes back with tribal leaders in 2000 BC performing duties regarding people and closer to 1500BC the Chinese used certain screening techniques to actually pick the best person to carry out certain duties which was then modified by the Greeks that made use of an appropriate system but in the early 1900's owners of business usually dealt with personnel issues.

The Gilded Era

During this time, it encompasses a tug of war around capital and labour, army personnel were hired to deal with employees that showed negative or rebellious behavior to owners of businesses and was of the notion that employees are part of raw material in working processes (Aslam & Aslam, 2013).

Post World War II (1945 -1960)

This time came with it the industrial revolution, with it came, techniques of motivation and how to encourage employees to do better, so money was used as motivation and very little psychological factors were taken into account (Aslam & Aslam, 2013).

From this point, personnel were registered and accounted for, and the introduction of questionnaires for a job with job descriptions to aid in selecting the best candidate. This in turn increased competition amongst people and businesses, accompanied with an appraisal system (Aslam & Aslam, 2013).

Social Issues Era (1963-1980)

According to Tubey, Rotich, & Kurgal (2015) because of this increased competition, businesses evolved, with the introduction of labor legislation in America that coordinated and controlled areas of employability.

Various departments appeared, including the human resource department in companies that were held accountable for tracking employee performance, absenteeism, personnel data and record keeping (Aslam & Aslam, 2013).

This started to increase costs in a company as more aspects came into human resource management, example: training and development, to keep businesses competitive as the Asian and Indian economies started growing at an alarming rate, with labour, good and services being cheaper (Aslam & Aslam, 2013).

Cost Effectiveness Era (1980-1990)

Aslam & Aslam (2013) stated that with the rising costs, strategies would have to be formed to remain competitive and layoffs and ergonomics started to become the norm. This introduction of technology into the workplace impacted human resources until the present day and will continue to do so.

Technological Age Era (1990 – Present)

There have been many changes and a constant integration of technology into the workplace (Tubey, Rotich, & Kurgal, 2015). There has been the development of rival companies, example: coke and Pepsi, Microsoft and Apple and various others with companies always looking at their rate on investment (Aslam & Aslam, 2013).

As it can be seen that the history of Human Resource Management has been profound and it will continue impacting lives especially as new technologies are introduced and newer types of work.

2.6 The History of Human Resource Management and Industrial Psychology Professionalism in South Africa

The following section will take into account the history of human resource management and industrial psychology profession in South Africa and how it has developed and evolved over the years.

2.6. 1The History of Industrial Psychology Professionalism in South Africa

According to Zyl, Nel, Stander, & Rothamann (2016) reveals that industrial psychology is known by many names around the world, example: Industrial- Organizational Psychology or Organizational Behavior which somewhat lead to confusion regarding the actual profession. This can also be seen by Benjamin & Louw-Potgieter (2008) that states because there wasn't any clearly defined boundaries, this then created vagueness in the field and profession.

But as described earlier that there are many boards that do a great job in regulating this field, example SIOPSA, which is the Society for Industrial and Organizational Psychology of South Africa and the Health Professions Council of South Africa (HPCSA), which is also regulated by the Act no 56 OF 1074 and amended in 2010.

It can be seen that this confusion has indeed created issues and according to Renecle (2001) reveals that because of this, it not be considered as a discipline on its own but with strict regulatory bodies in place, the boundaries are becoming more defined.

And in an international sphere as well, although know by different names they are regulated and acknowledged as a field and discipline, example in the United Kingdom it is know by "work psychology" and in Canada by "occupational psychology" (Cooper-Thomas & Wright, 2008).

In a study conducted by Zyl, Nel, Stander, & Rothamann (2016) with n=151 industrial psychologist in the South African Journal of Industrial Psychology, it was found that the functions of industrial psychologist in South Africa are more, community development. Well being of employees, using various types of diagnostics and but concludes that to have no grey areas that it is required that all practioners must share the values and characteristics to strengthen the field.

2.6.2 The History of Human Resource Management Professionalism in South Africa

According to Rensberg, Basson, & Carrim, Human Resource Management as a profession in South Africa (2011 a) the South African Board of People Practices (SABPP) played a massive role with respect to regulating and implementing quality standards in human resources in South Africa.

It attempted to nationalize a standard, by introducing legislation because it had seen the impact human resources was making to the economy and the lives of people.

It can be seen even until now that it has impacted our higher education, with respect to the South Africa Qualifications Authority (SAQA) and the National Learner Records Database (Rensberg, Basson, & Carrim, The establishment and early history of the South African Board for People Practices (SABPP), 1977-1991, 2011 b).

To fully understand the impact of the SABPP, the evolution has to be explained. According to Rensberg, Basson, & Carrim, The establishment and early history of the South African Board for People Practices (SABPP), 1977-1991 (2011 b) this board has provided professionals in the field with confidence as professionals in the human resource field.

Certification regarding human resource professions started many years ago in other countries, example: the United Kingdom has The Charted Institute of Personnel and Development (CIPD), the United States of America has The Human Resources Certification Institute (HRCI) and Canada contains The Canadian Council of Human Resources Associations (CCHRA) (Rensberg, Basson, & Carrim, 2011 b).

The establishment of the South African Board of People Practices (SABPP) 1977 -1991

Phase One: 1973 – 1976 (The Start)

This entailed the meeting that actually got things started, which was the meeting with Institute of People Management (IPM), and with this issues were raised revealing a need have a board in place to align with international standards and strikes in the sugar industry has started (Rensberg, Basson, & Carrim, 2011 b).

Phase Two: 1977 – 1980 (Building the Foundation)

During this time, consultations with experts had began and there were negativity around as South Africa did isolate themselves from the world as Garry Whyte wanted to establish a place for up and coming young professionals (Rensberg, Basson, & Carrim, 2011 b).

He stated that South Africa was in need for a body that will provide assistance to educational institutions and it will in return make their qualifications more valuable and proof of this came when a study was conducted by Langenhoven and Daniels in 1980, that reveals between 1975 and 1980, personnel staff only grew by 0.10% but still made up less that 1% of the workforce and 60.7% had no post school education relating to the field (Rensberg, Basson, & Carrim, 2011 b). This obviously sent shock waves throughout as people didn't have the required skills to perform their tasks well enough.

Standing from the left: Mr Piet Rossouw, Prof Johan Coetzee, Mr Cyril Jantjes, Mr Wells Ntuli, Mr Japs Jacobs, Mr David Lamola, Cdre Ray Eberlein, Prof Dick Sutton, Dr Gordon Nelson, Mr Wilhelm Crous (Registrar), Mr Willem de Villiers, Dr Bulumko Msengana **Sitting from the left:** Mrs Denise Jordan, Prof Henrik Langenhoven (Vice Chair), Dr Johan Gouws, Mr Garry Whyte (Chairman), Mrs Judy Townsend. **Absent:** Mr Ray Kwatsha, Dr Peter Berry, Prof Blackie Swart, Mr John Poppleton.

Figure: 2.7 Diagram showing the first board members chosen

Source: (Rensberg, Basson, & Carrim, 2011 b)

The Creation of the SABPP (1981)

The formation of the professional body was approved on condition that there was no discrimination and the board was pointed in 1982 after a meeting in 1981 and with this came formed a mission philosophy and strategy (Rensberg, Basson, & Carrim, 2011 b).

Their mission was to have a high level of ethics involved in the discipline, the philosophy was to make valuable contributions to the field and enhance the quality of life of people and their strategy was straight forward in that it was to develop, maintain and cultivate high standards of excellence.

The commencement of work (1983-1984)

This was the actually commencement of getting things done with individuals within the industry were eligible to register themselves in one of three categories with the fee of , R5, R10, R15 (Rensberg, Basson, & Carrim, 2011 b).

During this period their coat of arms were also formulated and introduced to the public, with a deep ceded meaning behind it. Know by the name "Heraldic Device" it is made up off the arms, crest and motto and depicting a meaning (Rensberg, Basson, & Carrim, 2011 b)

CREST: A dexter hand issuant holding a torch erect, Or,handle Sable, enflamed Gules.

ARMS: Per pale Or and Gules, a bar couped enhanced conjoined to three pallets couped and barbed to base, counter-changed.

MOTTO: Pro Facultate.

PRO FACULTATE
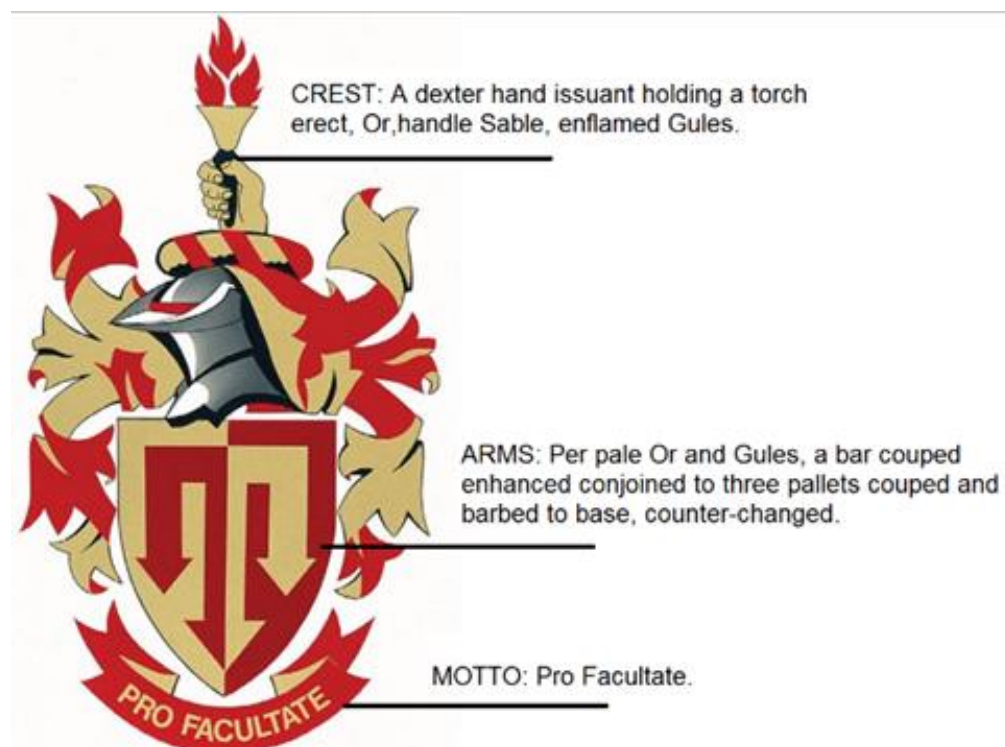
Figure 2.8: Coat of Arms (SABPP)

Source: (Rensberg, Basson, & Carrim, 2011 b)

The arm depicts the professional standards and stands as a guard, while the three downward facing arrows reveal in-depth of knowledge, principals and the three categories. The crest shows us people power and a holding of the torch represents seeking knowledge for education and the motto means "according to one's ability" (Rensberg, Basson, & Carrim, 2011 b).

Legislation (1985-1986)

According to Rensberg, Basson, & Carrim (2011 b) most of the time was spent on revising the draft personnel practice bill which was government gazette No: 9957 Vol 244 of 4 October 1985 and by the end of 1986 there were already 3491 practioners registered and a new registrar was appointed with additional chair persons for various committees.

Accreditation (1990) and Onwards

According to Rensberg, Basson, & Carrim (2011 b) in 1990 accreditation regarding curriculum was both audited and published and further more was accepted as qualifications with board examinations to make sure certain standards were met.

Now the board serves on the South African Qualifications Authority (SAQA) and the Higher Education Quality Council (HEQC) as well as the National Learner Records Database (NLRD) (Rensberg, Basson, & Carrim, 2011 b).

As one can see the professional body has been around and continues to develop and shape professionalism in South Africa, while maintaining standards.

2.7 The functions of Human Resource Management and Industrial Psychology

Over the years the functions of human resource management has diversified and as the workplace evolved, these fields evolved as well. Human resource managers as well as industrial psychologist have to be prepared to an environment that is constantly changing.

2.7.1 The functions of Industrial Psychology

After separating the two fields it becomes clear that industrial psychologist have a vital role to play in the organisation. They assist ultimately in the improvement of the overall

functioning of the work environment, while maintaining a safe, positive and managing the overall morale of the workplace (Lefkowitz, 2019).

According to Vuuren (2010) states that the norm has been that industrial psychologists function was mostly based around trying to solve problems in the workplace but this stance has shifted toward trying to create a work environment that fosters creativity and plenty of innovation.

There was little known about their role and impact that they have had on the economy and this can be seen by Vuuren (2010) that's shows us that their effort toward the economy of a country was not taken into consideration.

But in a recent study there seems to have been a shift and according to Odukoya, Agoha, Adekeye, & Olawookere (2020) shows that the functions of an industrial psychologist has in fact lead to increased productivity, better work performance and a healthier workforce which has directly impacted on a country's economic growth.

Their other functions include, trying to attract and retain talent while constantly creating a positive ethos in a competitive environment (Odukoya, Agoha, Adekeye, & Olawookere, 2020). It can be noted that they also do offer support to employees and do act as a counselor as well (Barkhuizen, Jorgensen, & Brink, 2014).

With this and the evolution in a high tech world of work and communication, their function will also have to be keeping up with best practices and keeping abreast of new technology, whist their so called traditional functions still remain, that is hiring the best, employee well-being and trying to create an environment of winners (Odukoya, Agoha, Adekeye, & Olawookere, 2020).

The functions of an industrial psychologist in this competitive and volatile world are vital now more than ever.

2.8 Research in Human Resource Management and Industrial Psychology in South Africa

Over the years there has been research done in these two fields. As looked at in sections 2.3 and 2.4, the overall research in South Africa and the support from government with respect to

policies, rules, regulations, outputs, funding and quality. A more in depth discussion around, research specifically relating to human resources and industrial psychology will be carried out, there after an assessment with the SAJHRM and the SAJIP.

2.8.1 Research in Industrial Psychology in South Africa

According to Cooper-Thomas & Wright (2008) like other countries, South Africa also experienced a challenge in first identifying the profession of industrial psychologist. But now they have thousands of students constantly enrolling to study in this field, and since the adoption of the South African Journal of Industrial Psychology has further enhanced research and the quality of research in this field (Coetzee & Van Zyl, 2015).

It can be noted that more and more professionals in this field prefer to be employed in an industry than enter the sphere of education and hence a limited number of academics impacting in this field (Ryan, 2010; Ryan, 2010).

This is important has research is mostly generated by scholars in academia than individuals in industry which does impact the overall publications especially in the SAJIP.

South Africa has put measures in place to make sure quality graduates enter t place of work, with the adoption of regulatory boards and laws, example the Health Professions Council of South Africa (HPCSA), which is also regulated by the Act no 56 OF 1074 and amended in 2010, that reveals that an industrial psychologist usually has a master's degree and serves a year in an internship program and once completed qualifies to write a board exam and then register as a fully qualified industrial psychologist (Coetzee & Van Zyl, 2015).

But in a study conducted by Schreuder & Coetzee (2010) revealed that there are aspects within the field that are under researched and more work in required but South Africa are in line with international trends and did see an overall increase in research especially with respect to psychometric assessment and testing.

 This is confirmed by researched done by Coetzee & Van Zyl (2015) that concludes that South Africa has contributed to this field and has even acquired national and international members to serve on the board of SIOPSA, which is the Society for Industrial and Organizational Psychology of South Africa and this conference takes place annually and various experts converge and showcase and impart knowledge and trends.

This society has shown growth over the years with over 520 psychologists already and continuously develop and increase their quality of psychologist that are being produced (Garbharran & Dowdeswell, 2015; Garbharran & Dowdeswell, 2015).

2.8.2 Research in Human Resource Management in South Africa

There are a lot of inroads being made with respect to research regarding human resource management in South Africa and this can be seen by Ruggunan & Sooryamoorthy (2016) that shows us there are more collaboration patterns and females that are now publishing in the South African Journal of Human Resource Management. However research in this field is still dominated by males and they are based in higher education institutions in South Africa (Pietersen, 2018)**.**

According to Ruggunan & Sooryamoorthy (2016) confirms this as well as the majority research being published are from educational institutions and other options to gain valuable and insightful data is being neglected, example: data from governmental departments, as the government departments in South Africa is one of the highest employers of people in the country. Although the majorities are while males publishing Pietersen (2018) there has been an increase in black researchers now publishing (Ruggunan & Sooryamoorthy, 2016).

2.9 The South African Journal of Human Resource Management

The South African Journal of Human Resource Management was established in 2003 and has grown in strength and reputation. It is also known as the "sister journal" to the South African Journal of Industrial Psychology (Pietersen, 2018).

It is important to note that this journal is one a "flag ship journal" and plays a vital role in addressing issues that will come to pass in the future (Pietersen, 2018).

Most of the publications so far has been "knowledge type" and more of "hypothesis testing" and has seen the majority of articles published were from white male and most are based at higher education institutions, however it was seen there are still a lot of room for improvement as there is still a gap between the journal and the actual industries that it serves which needs to be sorted in the near future (Pietersen, 2018).

With all of this the journal still provides quality articles with strict rules and regulations that promote and ensure quality of what is actually being published is meaningful and relevant.

2.10 The South African Journal of Industrial Psychology

This journal was established in 1975, like the SAJHRM it is also open source and serves many students, academics and industry specialist. According to Coetzee (2019) in an annual review publication revealed that, the journal is committed to both seasoned researchers and welcomes up and coming researcher to submit and the journal will continue to serve the public.

It was found that most articles that were published were based on the use of content analysis and a minority of articles did encompass the use of bibliometric analysis (Coetzee, South African Journal of Industrial Psychology: Annual editorial overview 2019, 2019).

It takes a massive team to make sure that article being produced are of a high standard and it is powered by AOSIS and like the SAJHRM is "indexed in the web of science, ESCI, SCOPUS, EBSCO HOST, GALE, CENGAGE and GOOGLE SCHOLAR" (Coetzee, South African Journal of Industrial Psychology: Annual editorial overview 2019, 2019).Its aim is to continue to add value to the people of South Africa and have a larger impact across the world.

There has been constant growth in these two journals and they remain grounded to scientific publication with strong international merit (Coetzee & Van Zyl, 2014). It is vital to note that both journals although structured similarly have their own editorial team and national and international boards and are constantly encouraging authors to submit papers to grow research across the journals and disciplines. The national boards compromise of academics from various South African Institutions.

As seen in a screenshot below how these journals are structured and academics from various institutions that bring different insight and skills in accessing and up keeping the quality of the journals. Therefore these journals became imperative to the study as they are quality journals that are becoming more predominated worldwide.

Figure 2.9 Screenshots Depicting National and International Boards and Editorial Team

Source: SAJHRM and SAJIP

2.11 Human Resource Management vs Industrial Psychology

It is important to note that from the outset that these two fields are related and some functions do overlap but both play an integral part in ensuring that organizations and institutions run effectively while keeping employees happy. One does not shadow the other but adds value.

And according to Venter & Barkhuizen (2005) there are still grey areas and some confusion based around this and does affect how these individuals perform in the workplace.

As stated that both industrial psychology and human resource management are similar. An easier way to distinguish the both fields are to remember that human resource management deal with performance and industrial psychology deals with behavior of an employee. One can see that one can affect the other and therefore are interrelated.

An example of this: if a disciplinary issue arises with respect to an employee, the industrial psychology will investigate the issue at hand and try to figure out what lead or caused this behavior and if there is a pattern of this behavior in the workplace. The human resource manager will then deal with the disciplinary based on the findings and recommendations of the industrial psychologist.

Remember on the investigation stage, a lot of efficiency issues can be rectified as more than one employee could be experiencing the same issue, e.g. dissatisfaction, and a good and fair investigation will lead to a better disciplinary issue and will protect both the employer and employee.

But to draw a more specific boundary between the two fields, one can look closely at a study done by Venter & Barkhuizen (2005) which reveals the following, industrial psychologists focuses more on the human element, they also adopt a very bottom up approach and bulk of their work revolves around employee behavior in the workplace, they also have the need to view situations from an employee perspective and their entire thinking is based around psychology to assist in improving the work environment and the improvement of functions in the work environment.

On the other hand, in the same study shows that human resource managers, puts the organization under their view, and adopts a more top-down approach, they try and tie the organsational goal to a strategy and their thinking is based around a more of a management

science than that of psychology, with this they view situations more from an organisational stance and how an employee fits into an organization (Venter & Barkhuizen, 2005).

In the light of the above, it was also found that industrial psychology is a specialized field and human resource management is core to all organizations (Venter & Barkhuizen, 2005).

2.12 The challenges in Human Resource Management and Industrial Psychology

Working with people always poses many challenges but in this technology and data driven world has brought up many new challenges in these two fields.

Technology will definitively carry on being part of our lives and major effect on people and work (Parry & Battista, 2020). As this major effect impacts on our lives, newer challenges will arise.

2.12.1 The challenges facing Industrial Psychology

Since we are going through so much of change in the way we do and process things in our personal and professional life, the way industrial psychology conducts its functions are also evolving and with this, brining about its very own challenges. Changes are happening from how we hire the correct person for a job to ergonomics and the introduction of automation into the world of work (Schmitt & Highhouse, 2012).

Since the introduction of automation and ergonomics, industrial psychologists are under pressure to keep the work force content, while assisting with retirement, retrenchment, obsolete skills and a diverse work force (Erdogan, Bauer, Songbo, & Hu, 2018).

This require a great deal of a balancing act from these professionals, as the economies are under pressure, it can be noted by Rothmann & Chilliers (2007) that the average work time as also increased and put a lot of pressure on work life balance, quality of life and a demand for more leisure time from individuals. Schmitt & Highhouse (2012) also highlights the need for more leisure time being a contributor to a happier workforce.

According to Erdogan, Bauer, Songbo, & Hu (2018) navigating these challenges is not going to be easy, while trying to keep a workforce happy and also agile and flexible to change. This can be seen by the pressures put on companies regarding the corona virus pandemic, as companies scrambled to move toward remote working and massive worldwide layoffs.

Therefore looking after the mental health of employees is vital and needs to be managed as a unction from management (Rothmann & Chilliers, 2007).

It is important to note that the world is changing at a very fast pace and that demands more from all fields and industries. By noting some of the challenges being faced in both industrial psychology and human resource management shows us some of the trends that are appearing but also assists us when it come to the implications of practice in this study as it shows if the study contributes in addressing some of the challenges being faced in the fields.

According to Parry & Battista (2020) one off the most challenges aspects would be how to deal with job losses with respect to automation and how do the remaining employees respond and work alongside machines (ergonomics).

Schmitt & Highhouse (2012) revealed that in the future, innovation and creativity will have to be managed and encouraged in the place of work as well as more authority and autonomy to make decisions to solve problems efficiently.

According to Rothmann & Chilliers (2007), the global village has now moving toward a leadership style and approach that is transformational, as employment relationships are now different and the traditional role of males being the sole breadwinners are not profound any longer. And this can be seen as having a knock on effect where these women are viewed as role models for other women, with this effect now being termed the "queen bee effect" (Ellemers, 2014).

According to Ellemers (2014) the challenge would be to monitor the fair representation of gender and welcome all types of diversity at work while reducing bias.

With all these challenges, the role of industrial psychologist to assist companies in being competitive is extremely important. Erdogan, Bauer, Songbo, & Hu (2018) the challenges facing human resource management will now be discussed.

2.12.2 The challenges facing Human Resource Management

As one can note that there are many challenges as we are in challenging times. As stated that the evolution how to manage people and procedures are changing. With respect to new technological change, human resource managers are trying to adapt to automation in the workplace, which poses many people and psychological challenges (Parry & Battista, 2020).

It can be noted by Babu (2017) that trying to give more power to other staff members with respect to decision making is tricky and tough on both employee and employer as it requires a power shift and this seems to be a major challenge in this new world of work. Therefore managerial power and authority must make a shift from being central and allow more autonomy (Sumaja & Srinivas, 2020).

Managing various generations at work is another challenges is also faced with resistance as managing emotional intelligence in the work place seems to a constant challenge with millennials entering the world of work. Karthikeyan (2017) this then require managers to develop strategies to manage mindsets but also be flexible enough not to discourage innovation in the workplace.

This can also be seen by Kaur (2018) that shows us that managing the new mindset and getting them to adapt to change is not an easy task and will consume a lot of time and energy. This will require human resource to manage relations better (Sumaja & Srinivas, 2020).

This requires human resource to be master managers of change due to globalization and the rapid changing environment (Nasir, 2017). This obviously have a knock on effect on the overall organizational culture and somewhat create a new organizational culture. Sumaja & Srinivas (2020) Stated that this new organizational culture will have a drastic effect on productivity of human resources, as their roles will be more diversified.

There is also major emphasis on the ability to empower employees, keeping them positive in an uncertain future, retaining talented employees (Babu, 2017). The game has changed, companies are global, and there are more degrees to how and where they work, with the introduction of flexible work hours and remote working (Karthikeyan, 2017).

This is also seen by Nasir (2017) that reveals that even hiring with the ability to conduct and be productive remotely will become the norm as this can reduce costs to companies while creating a better work-life balance for employees. There will a shift into personalizing work experiences for employees (Kaur, 2018).

Training and development will have a major shift toward gamification, simulation and more online based, this will require companies to "build learning" and learning processes as most companies are building artificial intelligence (A.I) into various work processes (Babu, 2017). Companies are making massive waves with respect to the future of work processes and artificial intelligence; there has been a "quantum leap" (Nasir, 2017).

Therefore in the near future companies visions will be modified as the needs of the customers and how one engages with consumers are changing (Babu, 2017).

With this being noted, a lot of employee policies and frameworks will have to be amended or invented as to manage this new dynamic, multifaceted and diverse workforce (Nasir, 2017).

To keep up with this change a better, feedback system will also be deployed and how companies analyze their human resource data will also have an impact on the survival of that company (Karthikeyan, 2017).

Therefore there will be a heavier reliance on data analytics, and a strategic approach to digitalization, general analysis, assessing internal and external stakeholder patterns and cloud solutions (Kaur, 2018).

The corona virus pandemic as highlighted under challenges facing industrial psychologist in sub-section 2.9.1 has put major pressures on companies, especially the human resource departments.

There is a strong need and a rush toward digitalization and it now rest on the shoulders of human resources to offer the support required on all these platforms (Gigauri, 2020; Gigauri, 2020).

Hence this has brought about, a reliance on technology and employees having to be trained all using these new technologies (Gigauri, 2020). This can be seen by Anseel, Bamberger, Antonakis, & Bapuji (2020) that revealed, at the break of the pandemic, majority of employees worked from their home and home digital offices were set up to make sure people were being productive. And according to a report released by Deloitte (2020) stated that new models for business to operate in have been developed hence certain functions changed and created a hybrid culture.

There are also higher levels of stress and other factors to consider, example, loneness, aging workforce, and burnout as managing employees remotely is not common in most areas of work and it is very new territory for a lot of companies (Anseel, Bamberger, Antonakis, & Bapuji, 2020).

One big factor is having access to leadership during this time, but the creation of virtual teams has assisted to some degree in this regard but knocking on someone's door seems to be

a thing of the past at the moment and planning for various scenarios is reality right now (Deloitte, 2020).

As it can be seen from the above, the future looks bright and scary at the same time as there are plenty of opportunities hidden in all these challenges regarding human resources.

2.13 The functions of Human Resource Management

As stated earlier, that the roles and functions of a human resource manager is evolving continuously. This can be seen by Fenech, Baguant, & Ivanov (2019) that is also of the notion that human resources is changing due to various new technologies and impacting working lives.

According to a study conducted by Shakil, Hassan, & Qureshi (2019) shows that the Ulrich four roles model is still valid in human resources today. To simplify this it means that human resource functions are characterized by four broad but functions. That is they assist in being a strategic partner and assist in the implementation of these plans.

They also have an administration function, where it deals from record keeping to the development of newer structures to assist in making processes more efficient. Another arm of this model is being an employee champion, which is being fair and progressive in nature to employee needs and wants and creating win-win situations. And finally being an agent of change that is assisting and producing newer, more developed structures (Shakil, Hassan, & Qureshi, 2019).Therefore by combing all these functions human resource management will lead to a constant success to the organization.

According to Gunnigle, Heraty, & Morley (1997) general and traditional functions that are still in total practice are but not limited to the following:

- Employee resourcing: this is making sure that the organisation is adequately staffed with the correct individuals.
- Rewards Management: this is making sure that there are policies in place so that people are rewarded accordingly.
- Employee and Personnel Administration: this deals with making sure that record keeping and access to information is available.
- Strategy and Organization: this is making sure that everyone is working toward the company's plan to succeed.

- Employee Development: this is making sure that there is continuous development to keep up with new work processes.
- Employee Relations: this is maintaining proper relation and assisting in creating a more satisfied workforce.

2.14 Future trends in Human Resource Management and Industrial Psychology

Human Resources and Industrial Psychology have developed tremendously over past decade with the invasion of technology into the area of work. And this has changed the way the world operates.

Training and development has and will continue to play a vital role with respect to innovation and adjusting human behavior to bring about innovation to carry out a job for effectively (Sheeba & Christopher, 2020). Taking this into account it is also important to note that companies are required to build a "culture of learning" to both retain employees and to stay in business and or relevant in this "gig economy" where new technology is being introduced frequently and the process of work always changing (Sheeba & Christopher, 2020).

In a study by Deloitte in 2020 shows us that there world is evolving and we now have 5 generations currently in the workforce (Deloitte, 2020). This has obviously brought both exciting and nerve wracking times for all stakeholders as well.

In another study it became apparent that the future will rely on both organizations and employees being agile (Mecer, 2020). This is confirmed by Deloitte (2020) that reveals that the future is somewhat uncertain and that companies and people ought to invest in a future that is uncertain, hence requiring them both to be agile. This means that both human resource and industrial psychologists will have to assist in preparing a workforce that is agile and open to an environment of constant change.

The effects of not being agile or companies having to respond to being agile were seen by their response to the Covid-19 pandemic. Companies were left scrambling trying to change their working strategy over-night.

And their biggest challenge in the future will be to attract, manage and retain highly skilled individuals (Mecer, 2020).

According to Mecer (2020), the study also revealed that taking care of individual's emotional and physical needs will be will be profound and work will be premeditated around an employee's wellbeing. That is there will need to be a deeper connection between management and employees.

The future looks to be very technology driven, while moving to a more balanced work-life. So there seems to be a parallel with respect to technology and work-life. Therefore this will lead to a more over-lapping of work and work-life. This means that there will be a shift for hr managers, to managing employees differently and be open to more remote working and more managing of performance, for industrial psychologists this means that they will have connect with people differently and according to Deloitte (2020) this type of connection must lead to contribution to the organization. Hence a more human approach to managing people. This will lead to them extending their influence on people. This can lead to more relaxed rules, regulations and policies with work. So all traditional practices will have to revisited and revised.

With respect to training and development, the future is moving to a more online development (Mecer, 2020)**.** The ultimate aim is to create so called "super teams" in the work place and introducing a lot of artificial intelligence into work and work procedures (Deloitte, 2020).

Therefore training and development and human resource managers will have to align training programmes to more online base with the notion of creating these "super teams".

How companies manage data is also important, traditionally data was just captured and not analysed. And according to Mecer (2020) this will lead to more "crowd sourcing" of data. An example of this would be, asking employees what they feel about the company, so more focus on engaging with employees and shit to a more off managing total rewards.

To be and remain competitive, companies will need to invest in carrying out qualitative and quantitative analysis, which most companies haven't really tapped into this as yet (Deloitte, 2020). Therefore HR data will have to generate more than time sheets but show patterns and trends with employees.

As shown that the digital age has arrived and has made work easier and somewhat easier to manage and keep track off but this requires effort and work from all parties concerned and investment to keep abreast of the changing world.

According to Mecer (2020), the world will move toward computing on ones finger tips that is work done from more hand held devices, with a heavy reliance on the internet to access information and for communication. In a study carried out by Zafar (2017) which confirmed that there is going to be a continuous evolution with respect to hand held devices in the workplace, example the use of whatsapp work groups and "Internet of Things" (IoT) but investment is required stating that cloud and fiber will allow for greater flexibility and better performance.

Trends in great customer service and with "augmented reality" as shown with Mecer (2020) that is simple terms if a job seeker points a cell phone to a building, it will convey the number of vacancies the company has available. Therefore the massive shift to make sure that data from a human resources perspective has to be on point and constantly updated, with a lot of real time results.

Looking at the above, it shows that the future of HR and IP will be more technology and people based with companies having to be more agile and flexible with respect to organizational polices at work.

2.15 Conclusion

In this chapter, the South African research environment was assessed. Research trends, functions, challenges and history into human resources, training and development and industrial psychology were evaluated. Finally a comparison between, the disciples of Human Resources and Industrial Psychology was conducted.

It can be concluded that South Africa has taken steps in ensuring that there is constant, quality research output and that research has significantly increased over the years and in a positive direction. However more work is required in producing more quality researchers, in keeping with other top producing research countries. This has to be an ongoing going process to bridge the gap of our inequalities of our past. By doing so, it will assist in providing more and better opportunities for all, while creating a more stable educational and research sector for the future.

CHAPTER 3

Training and Development

3.1 Introduction to Training and Development

As seen so far that the field of Human Resource Management has been transformed and is continuously evolving, this has definitely had an impact on training and development and will continue to do so.

This can be seen by Bell, Tannenbaum, Noe, Ford, & Kraiger (2017) that reveals that the scope of work has indeed changed and to remain competitive both organizations and people need to consistently upgrade their skill set or stand a chance of being left behind and ultimately become obsolete in this fast paced, technologically driven world.

This can also be seen by Chopra (2017) that states that due to the volatile and unclear future of work, it is now more than ever to adopt innovative training and a more out of the box approach. To understand this, a good place to start will be to look at how the training and development sub-field of human resources as evolved.

3.2 The Evolution of Training and Development

Time as moved and so with it jobs moved from more manual duties and manual training to a more skills based approach that allows employees to carry out and complete tasks which are more complex and dynamic in nature (Bell, Tannenbaum, Noe, Ford, & Kraiger, 2017).

Below is a diagram that reveals a timeline of the transition of training and organizational development.
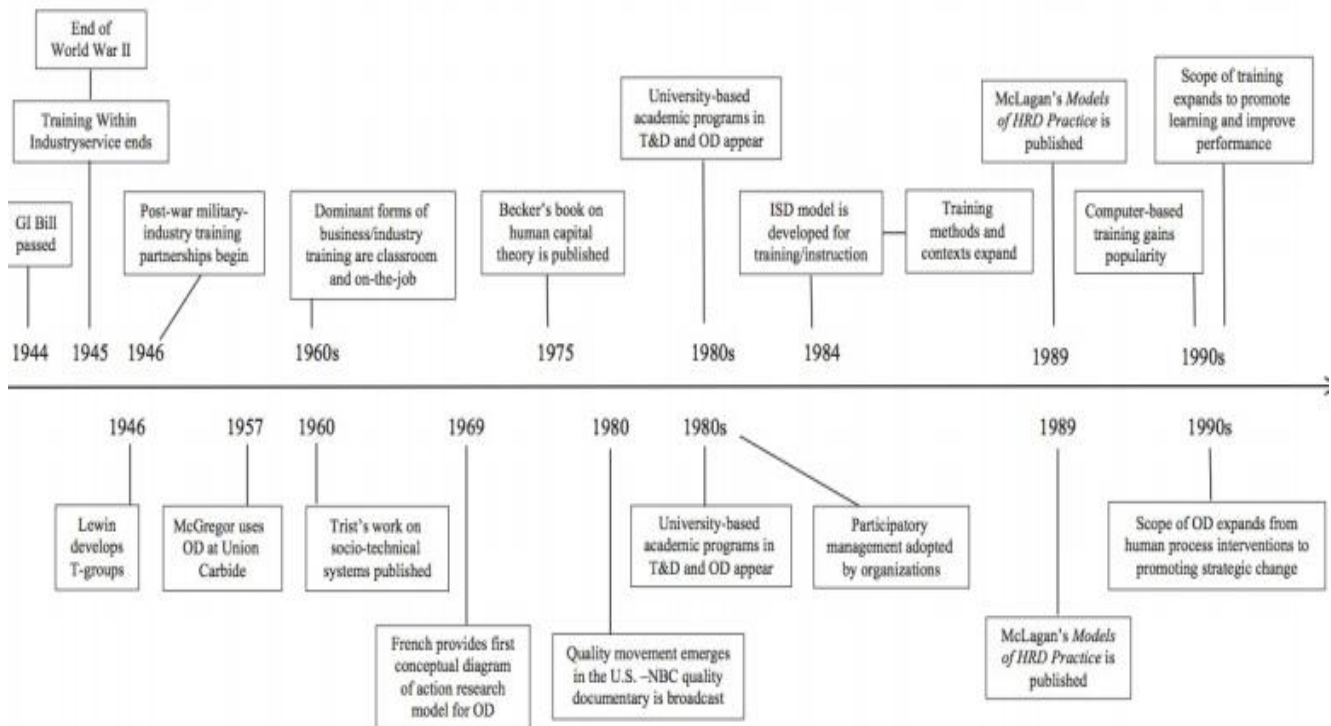
Figure: 3.1 Timeline of Training and Development

Source: (Torraco, 2016, p. 9)

The real difference as it with the history of human resource management can only be seen after the Second World War because that period saw a massive demand for workers that were trained and skilled as economies started to grow and the introduction of innovative ideas and techniques.

This can be seen by Torraco (2016) that reveals as unions representing labor in the United States of America became more prevalent they supported education and forced a law called the "G.I Bill" to be passed that allowed various benefits that included education in various fields and job training so much so that according to Bound & Turner (2002) in a study conducted saw over 5.5 million people that underwent training during that time period spanning ten years.

Soon after this, many lessons were learnt for WWII and there was a shift toward more class-room based and training while carrying on duties, which later become to what is known as on

the job training but with this came a revolutionary training and development model in that of ISD, which stands for "Instructional Systems Development" (Torraco, 2016).

This model started to take into account the need for training by actually conducting training need analysis and accessing whether it was viable to conduct training, it benefits, pitfalls and how it will improve the efficiency of people that underwent training.

While this was being done, concurrent to this saw the birth of vocational and technical training as it was found that this is where the demand actually lied at and this gave rise to more apprenterships programs being introduced to many industries from construction to banking (Torraco, 2016).

It can be noted that a lot of time was spent accessing the cost-benefit of introducing and conducting training and until the early 90's were due to globalization and building higher performing companies was the benefits of investing and the rewards of it being felt and this saw more companies opting to invest in it (Torraco, 2016).

During time also saw another major technological shift with the introduction of computers and software's that provided another dimension to doing work and a option for training and motoring performance, example the introduction of "electronic performance support system" (EPSS) (Torraco, 2016). And soon following this the internet was introduced and this lead to various systems and devices with newer training models that allowed diversification of training.

With respect to organizational development, it also ran parallel to training and development, which can be seen by the figure above and they both worked hand in hand, as one evolved the other did so and transformed how organizations function, giving them a strategic edge.

3.3 Training and Development in South Africa

As discussed in chapter two that there are many plan and strategies introduced, and this included legislation to assist having employees trained and have access to training during their lifecycle in an organisation example: the Skills Development Act (SDA) of South Africa No97 of 1998.

With the introduction of a National Labour Department, serving as a watch dog to make sure all rules, regulations and employment legislation is adhered too.

The government also allows companies to contribute to a Skills Development Levy (SDL) in return for certain tax breaks and grants for skilling. And the introduction of Sector Education and Training Authority (SETA) across all sectors has assisted in speeding up the process of skilling the people of South Africa.

If an organisation, does pay toward the levy they in turn will have to develop and upload a Workplace Skills Plan (WSP) accompanying this will be a document known as the Annual Training Report (ATR) which is compared to the last plan so that government can monitor progress and issue or removes grants and/ or tax returns (Labour, 1998).

In broad terms the SDA, assists in trying to enhance a workers life and their work life while improving performance and output in industries. It also is a massive advocate with respect to promoting entrepreneurship and allowing opportunities for the previously disadvantaged access to education, training and development (Skills Development Act NO 9, 1998).

According to the a report released by the Human Resource Development Council of South Africa (HRDC) it was noted that companies will have to keep abreast with new technologies and absorb them into their daily work and there is a massive demand for skills for this, hence more training and development will be needed in these areas (Kraak, et al., 2013).

In the diagram below reveals that the employer-employee relationship in South Africa started as far back as the gold and diamond rush in 1815. And there have been pivital milestones that have shaped labour legislation in South Africa.
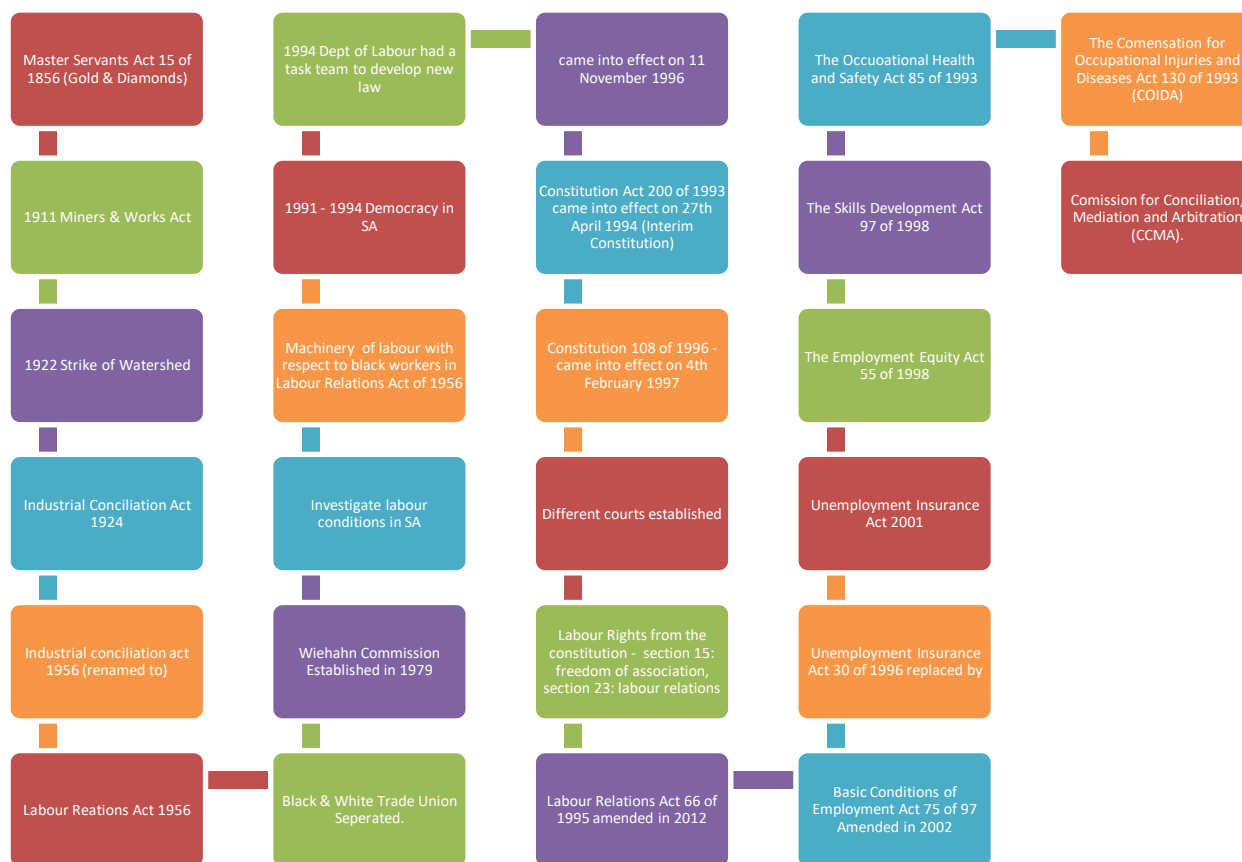
Figure 3.2 Timeline of laws

Source: Authors Illustration

This timeline reveals that pre- apartheid there wasn't enough done with respect to legislation to take care of the employee and to strength the empoyer-employee relations. Just after South Africa became a democratic country is when government mandated new dynamic legislation to be produced. Since the establishment of the consitituition was implemented saw the Labour Relations Act 66 of 1995 (amended 2012) being produced. From here ther need to lookafter an employee health and safety in the workplace. During this time South Africa's post matric population grew and there was an excess of unskilled labour. This made government produce the Skills Development Act 97 of 1998 that allowed employers to train employees for reduced tax incentives. Therefore government has placed measures in place to

asssit in bridging skills gaps as quickly as possible and there has seen investment from both public and private sectors into training and development of personnel.

According to Kraak, et al (2013) some of the skills that are required in the country are in the field of engineering, management and leadership skills. And this can be seen by Skills Supply and Demand in South Africa (2019) that confirms this as there is a need in these fields. But there has been progress and according to a study conducted by Rabie, Cant, & Wiid (2016) showed that businesses have been conducting training with respect to better customer service and leadership.

According to Rabie, Cant, & Wiid (2016) in the same study it was found that there was a lack of support and encouragement from all spheres of management, especially line managers was given and if more opportunities did arise, employees felt happy to accept it and this is also echoed by Kraak, et al (2013) that's states inclusion on the decisions regarding training needs to happen and more strategic output that could be gained from training must be considered.

According to Stats SA, Skills Supply and Demand in South Africa (2019) the country is still trying to put right the wrongs of our past and is faced with no easy task as they constantly have to take the socio-economic aspect into context added to this a massively ever increasing population and unemployment rate.

But is was found that South Africans have no choice but to accept jobs in which they don't have all the necessary skills for as seen by Skills Supply and Demand in South Africa (2019) that showed that a massive 32% are not working in the field they actually studied for and with labour regulation these individuals cannot be dismissed but request companies to fill the skills gap for that position as quickly as possible.

But it's not all doom and gloom, as according to Stats SA, learnerships has increased over a six year period by "105.7%" and so has their completion throughput rates (Kraak, et al., 2013). This reveals that funding being allocated by various regulations are improving the state of the country's overall skills targets but a lot more is required by all role-players and stakeholders as the world is moving at an extremely fast pace and catching up to countries like, India, Japan will be extremely difficult if not impossible.

3.4 Challenges facing Training and Development

Training and development as in with the field human resource management is evolving and there are constantly going to be challenges sprouting.

According to Alemu (2017) in a study conducted showed that there was a lack of proper commitment form senior management with respect to training and in another study conducted by Omar (2021) revealed that 100% of the respondents also felt the same. This is there a massive challenge as it becomes pointless to investment in something that cannot be taken seriously. This is echoed by Bell, Tannenbaum, Noe, Ford, & Kraiger (2017) that also reveals the high importance of having that extra support from mangers will have positive consequences.

Constantly building an environment that encourages development is another challenge Alemu, (2017) and this new environment will need to encourage and nurture innovation, as seen in companies like Tesla (Omar, 2021).

Noe, Employee Training and Development (2008) Revealed that there will always be a need to keep up with training internationally as new technology enters the place, employees must be taught on how to use this, whether it is any type of equipment, hardware or software.

There is a challenge to actually train future leaders that are emotionally aware of the within organizations and its peoples wants and needs as well as encouraging a place where "principles are actually practiced" (Omar, 2021).

According to Noe, Employee Training and Development (2008) preparing for the future world of work is important as jobs will change thus a need to have change management strategies in place (Omar, 2021).

There is now doubt that demand from customers will also place a challenge on training and development as market research indicates what consumers want to see in a product or service rendered. This is shown by Noe, Employee Training and Development (2008) that states that it pressure are put from customers as well.

Turbulent times and an ever evolving world of work will also require that employees are trained on how to actually deal with this and rising morale will be a constant challenge bundled with globalization in a world of ecommerce and technology, the challenge will definitely be keeping up or become obsolete (Omar, 2021).

As it can be seen, there will always be challenges and a need to develop. And having economies that lack basic skills will definitely do more harm to its people as they will find it difficult to meet the demands of the world.

3.5 Training and Development internationally

Companies are constantly trying to improve training programmes and trying to make sure that the employee retains and implements the new learned behavior. According to Masalimova, Usak, & Shaidulling (2016) shows that when a fresh graduate enters the working world, he or she does not have the actual required skills to perform tasks within the adopted company, especially when it comes to using in-house computer systems and thus requires special assistance to improve their skill level to keep up. This is also shown by Kieitner (2004) that states, graduates are still green when entering the workplace and are unclear as to what to expect, hence a creation of a gap with respect to the skills required to keep up with the work intensity in the organisation and this skills gap can be rectified through training programmes to speed the transition process up.

In the United States of America it was found that a lot of time and money is spent on developing these graduates and relies more on internships programmes to speed the process up and the same study found that employees with post graduate qualifications actually earn twice as much as employees with undergraduate or no post schooling education (Masalimova, Usak, & Shaidulling, 2016).

Other countries with massive economies like Japan and Germany invests double the amount as the United States of America into their training while investment into a manual laborer or an individual that is required to work out on the field is as much as seventeen times higher (Masalimova, Usak, & Shaidulling, 2016).

With other first world countries like Great Britain and France, tries to cut costs with respect to their training by having more in-house training and adopt a system of information sharing and like the USA, mentoring but France tries to reinforce training by utilizing a system of "train and retain" and this is solely done so that employees are constantly focused on company goals so much so that 30% or more of their workforce improves their qualification per annum (Masalimova, Usak, & Shaidulling, 2016).

3.6 Theories and Models guiding Training and Development

There are various theories and models surrounding training and development, the Ability, Motivation and Opportunity theory (AMO) and the Expectancy Theory and the rewards model are prevalent theories and models behind employee training and development. In 2013 it was found that more work must be conducted to fully understand theories and models with respect to employee, motivation, rewards, expectancy especially with respect to employee development (Nehles, Riemsdijk, & Lousie, 2013). And this has now been adopted.

On the other hand using theories and models in respect to human resource activities, especially in training and development is important (Sanchez & Sahuquillo, 2017). Using the AMO theory one can predict behavior and rectify it with appropriate consultation and learning and development and in a study conducted in 2017 it was reveled that line managers are encouraged to use AMO not only motivate employees but develop them as well (Sanchez & Sahuquillo, 2017). According to (Garcia & Tomas, 2016) stated that the AMO framework is not both well structured and excellent for increasing performance, increasing motivation and bridging skills gaps to get the most out of an employee.

This is further emphasized by a study conducted with millennials that 'showed a there was higher quality of work being produced and coaching system under their training programme was effective as it allowed employees the opportunities to engage with manager and transfer skills (Nor & Abdullah, 2020).

Subsequent to the above study, in 2019 another study that utilsed 71 managers and 318 employees with respect to the AMO theory revealed that AMO lead to higher employee satisfaction and performance systems were linked to training and coaching in the workplace. This had a major significant effect on employees being motivated to achieve more at work.

It is important to note that during the Covid 19 pandemic that this theory with the use of Green Human Resource Management (GHRM) was implemented in a few public hospitals to improve quality of service delivery for patients and training and development played a major role in training staff to deal with infected patients diligently (Saifudin, Havidz, & Hidayat, 2020). This is proving to be vital as the world is trying to recover from this pandemic.

Using a the expectancy theory on hotel employees in 2008, it was found that there was a direct correlation between employees that worked hard and expected rewards at the end and this saw their performance and service levels exceed expectations (Chiang & Jang, 2008).

During this study it was also found that because they wanted to do better they expressed their desire to know more and this influenced their training and development initiatives to build capacity and had a direct effect on them being retained within the industry (Chiang & Jang, 2008). This shows that these theories and models have a pround effect on justifying and introducing employee training and development.

This can also be seen by (Nsofar, 2009) that showed motivating employees under this theory proved to be significant and it assisted in filling in skills gaps with training that ultimately lead to better performing employees.

In a study with 194 construction workers that used the expectancy theory, it was determined that using the expectancy theory did motivate employees, increase morale and assisted construction workers in getting the relevant training and increased their performance (Ghoddousi, Bahrami, Chileshe, & Hosseini, 2017).

Using theories to determine skills gaps and train employees are vital and should be on going (Ghoddousi, Bahrami, Chileshe, & Hosseini, 2017). This also proves that these theories are flexible with respect to the industry and can be adapted to any profession to get the best out of their employees.

The model of total rewards also has a vital role in training and motivating employees. It can also be used in conjunction with the above theories or similar theories and models. It does provide various opportunities for learning and development and is directly linked to benefits, example money/ pay and provides an incentive for employees to complete tasks, that include training as well (Nazir, Shah, & Zuman, 2012).

It also assists in retention training and development as benefits are attached and supports reward structures that companies introduces in the workplace (Hoole & Hotz, 2016).

In a study that surveyed 201 employees found that, total rewards did contribute to the expectancy theory and material rewards did prove fruitful especially when it came to diversifying employee skills and new challenges in the workplace (Narang & Sharma, 2018).

Therefore it can be seen that there are theories and models in respect to human resource management that have a profound effect on training and development and it is becoming more prevalent in the discipline.

3.7 Training Criteria and the Transfer of Learning

The first step to any training process is to find exactly what gaps there are and how to close the gaps (Bell, Tannenbaum, Noe, Ford, & Kraiger, 2017). This can also be seen by Statt (2000) that maintain this should be the starting point and a variety of needs should be looked at. The diagram below depicts, the stages of the "training process" by (Statt, 2000).
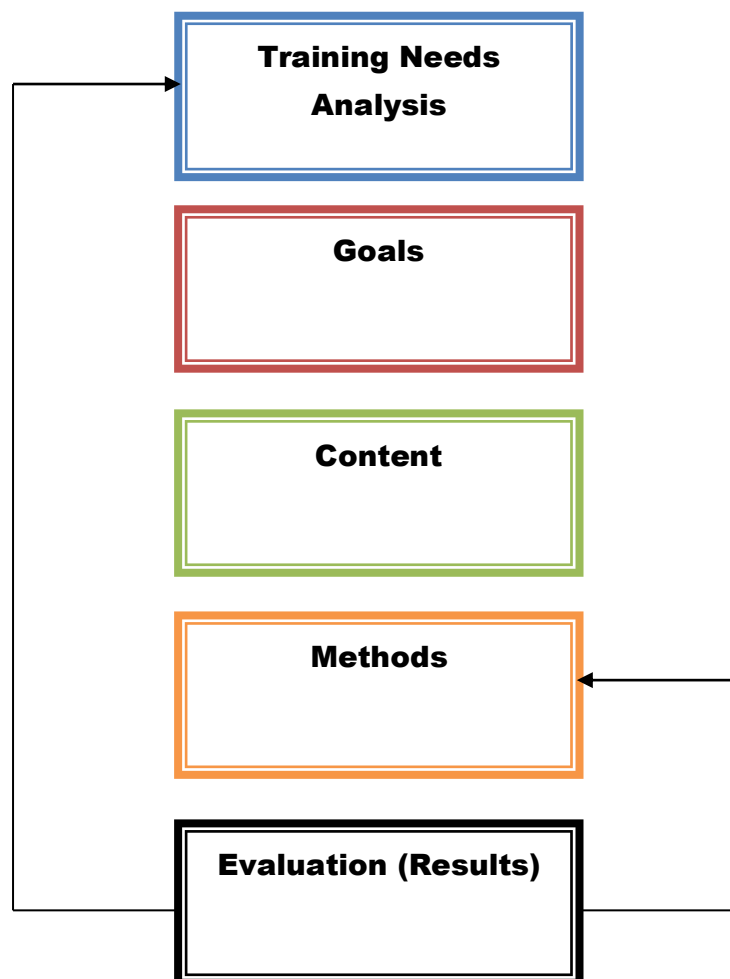
Figure: 3.3 Diagram showing the stages in the training process

Source: (Statt, 2000, p. 171)

The diagram below indicates that there are some jobs that really don't require much training and a person can just walk it and hit the ground running. But there are instances were gaps are found and the person will need to be brought up to speed with the relevant training as shown.
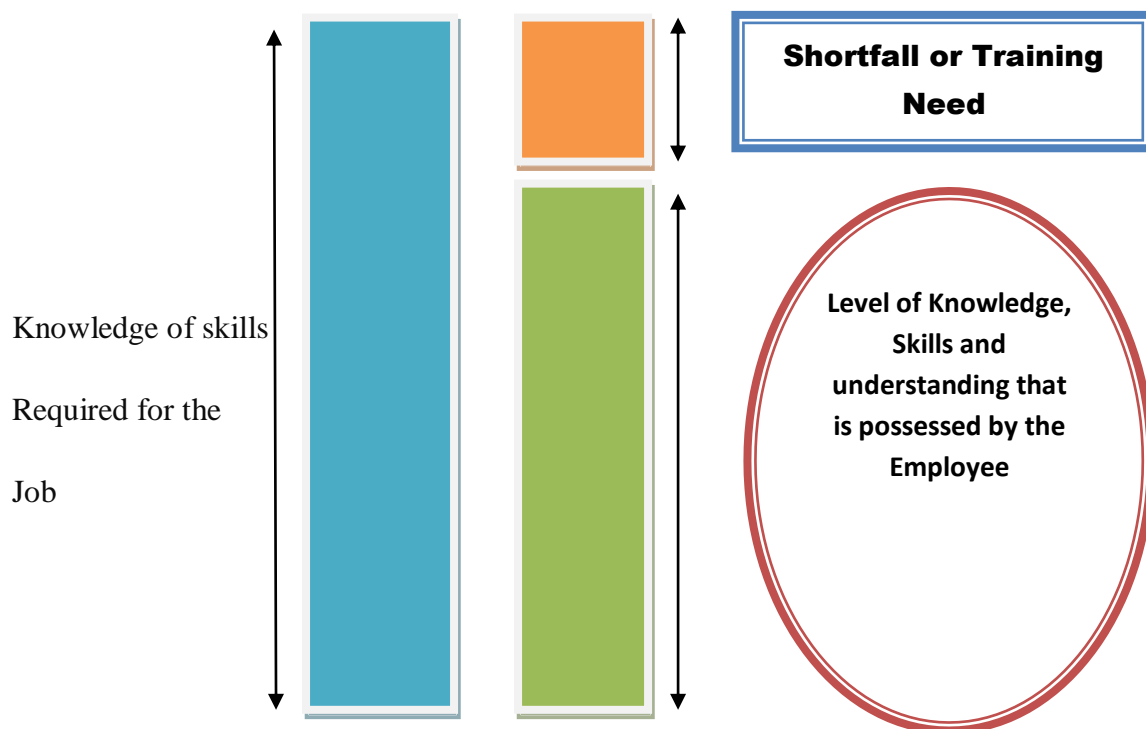
Figure: 3.4 Training Needs Diagram

Source: (Cole, 2004, p. 353)

According to Noe, Employee Training and Development (2008) there are three types of analysis that make up the training needs assessment and they are, "Organsiational, Personal and Task". As depicted in the figure below.

Diagram 3.5: representing the Elements of Training Needs Analysis

Source: (Noe, Employee Training and Development, 2008, p. 285)

3.7.1 Organisational Analysis

According to Noe, Employee Training and Development (2008) the training program must somehow align with the overall strategy, goals and targets set by the organisation and that support from managers and co-workers are extremely important as if no excitement or no value is shown with completing a particular training then the employees wouldn't really bother as well.

But if it is shown that the training is in line with strategy and how it affects the company, it will definitely impact the company. There are many companies that work closely with universities and research companies and a lot of training is aligned to models produced by these institutions by large companies (Noe, Employee Training and Development, 2008).

Therefore this analysis deals with matching strategic goals to training and mustering up support to show the importance and relevance of training.

3.7.2 Person Analysis

Now to actually roll out training programmes there are some basic skills that a trainee requires to have as a foundation to learn, and if they don't possess this they will have to first acquire it and according to Noe, Employee Training and Development (2008) trainees level with respect to, their reading, comprehending, writing skills will first have to be assessed before designing or carrying out any programme.

Therefore is it import to carry out this analysis so that any gaps can be filled before investing in sending an employee for training and not know if they are able to complete it successfully. This also aids trainers in designing programmes that can be pitched at a specific level (Noe, Employee Training and Development, 2008).

3.7.3 Task Analysis

This involves actually analyzing the duties performed that makes up the job itself, that is what is needed to be done and the elements will need to be broken down (Noe, Employee Training and Development, 2008).

According to Noe, Employee Training and Development (2008) to do this in more detail one needs to look at various variables, example the environment in which this specific task is completed and how a situation is dealt with, example: a miner will have to wear a mask as part of health and safety requirements before going underground but a school teacher will not need any respiratory equipment to teach.

Taking all this into consideration it is valuable to note that one must work in order with respect to the analysis that make up training needs analysis as it will assist in determining if more resources are required to be allocated to the training programme (Noe, Employee Training and Development, 2008).

3.8 Trainee Characteristics

There are certain types of characteristics that aid a trainee and the organisation alike and as revealed by Bell, Tannenbaum, Noe, Ford, & Kraiger (2017) there are motivators that

influence training and how trainees actually respond to training; however they do state that a lot more research is required as more training "based around technology" enters the world of work.

According to Bell, Tannenbaum, Noe, Ford, & Kraiger (2017) some people are proactive and easily motivated and some are not and have to nudged while some show resistance that needs to be overcome but some motivators that as yielded change is when and where and at what time does the training take place. Now this is particularly important as more and more training is completed online at any time and virtually anywhere, therefore some people might feel more comfortable completing a training program at home and/or at night.

But there are other factors as well and in a study conducted by Nafukho, Alfred, Chakraborty, Johnson, & Cherrstrom (2017) with n=251 showed some interesting shifts in characteristics for instance, it revealed three important factors that influenced trainees, the actual environment in which it occurred, how efficient was it overall and what was the motivation behind it all.

And in the same study according to Nafukho, Alfred, Chakraborty, Johnson, & Cherrstrom, (2017) it was noticed that because of the actual learning, positive reactions occurred in which the trainees felt happy, an increase in motivation, and there were more open in participating, flexibility at their work and more motivated to challenge themselves with more complex tasks.

3.9 Training Design and Delivery

There are various methods for training design and delivery and there is no one method that fit all organizations therefore managers will need to adopt the best one that suits their organisation for the best highest possible transfer and retention of knowledge.

According to Lacerenza, Reyes, Marlow, & Joseph (2017) reveals that there are certain categories that can be grouped around training and development and they are, opportunities given to an employee to practice what they learnt, how the training information is actually delivered and finally skills they learn via "demonstration". And all three are very effective.

The first category, that is the opportunity to practice, can take various form, example: role playing or being guided while doing the task. The second category cane be in the form of

printed material and or a lectures and finally training can be shown via simulation where a trainees views a video, example watch a "how to" video on YouTube.

According to Abhishek & Senthilkumar (2016) shows us in the in the diagram below, which method is effective in the trainee retaining the maximum amount of information.
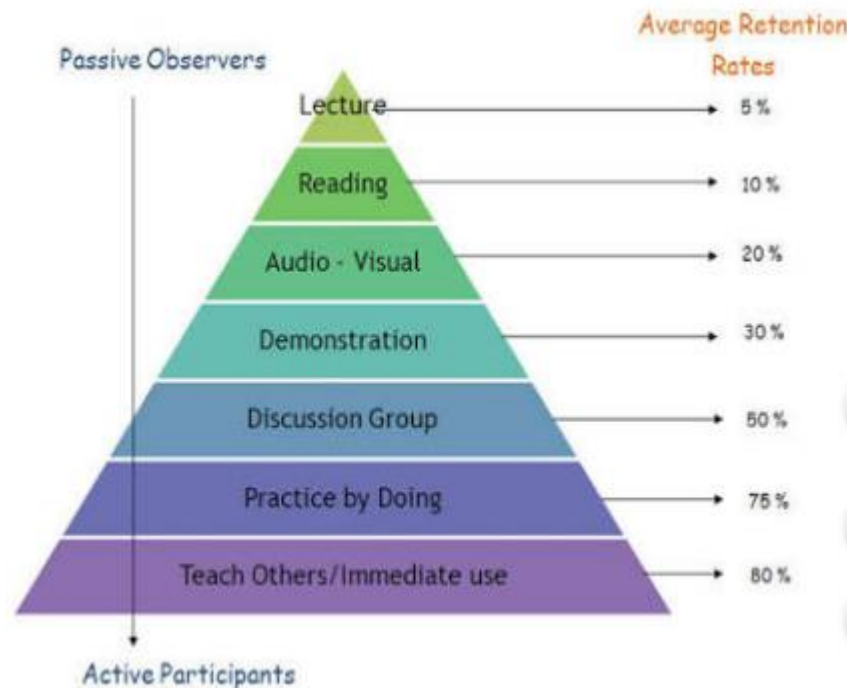
Figure 3.6 Diagram revealing effective method of training

Source: (Abhishek & Senthilkumar, 2016, p. 48)

This is also supported by Weaver, Rosen, Salas, Baum, & King (2010) that agrees that learning via actually doing seems to be the best method however all three categories' are effective.

Although some methods have been around for some time, example case studies since the 1960's they are still utilized today and there is debate about "traditional vs modern" example: in the modern era some training content is being created by employees and this leaves room for debate regarding how trustworthy is it (Bell, Tannenbaum, Noe, Ford, & Kraiger, 2017).

But there is a shift to modern, tapping into the power of mobile devices and social media as well. And according to Suhasini & Suganthalakshmi (2015) reveals this by showing that more training will be computer based, using artificial intelligence built into devices and software, while more learning will take place via virtual reality and social media, like YouTube where a person can bring up a video of what they need to learn, example: learning a new function on Microsoft excel.

Other systems that proved to be successful are the creation of metaphoric teams that is, teams are created to study patterns of competitors and copy them in a way to study different scenarios (Masalimova, Usak, & Shaidulling, 2016).

According to is a method known as "in basket" that is a list of duties and tasks are listed and the trainee actually tries to carry it out based on the most important first. This can be challenging at first but many skills can be learnt. Similar to role playing and job rotation is a secondment, this is a way in which an employee will actually swop roles for a day or two and try their best to carry out the duties of the other person, this assists in knowing shortfalls and contributes to succession planning (Masalimova, Usak, & Shaidulling, 2016).

Gamification is a newer method that is quickly becoming popular, in which training is made into type of games; form simple quizzes to mobile applications in which once completed unlocks a newer level (Abhishek & Senthilkumar, 2016). This can also be seen by McArdle (2015) that reveals this does generate fun and interest and has a positive change with respect to the desired behavior.

Studies conducted by McArdle (2015) reveal that technology based classrooms are also showing a great deal of promise but acknowledges the fact that a "blended learning" approach is proving to be significant in that it's a mixture of a few methods which include some human interaction as well as online based and at the same time the student feels more in control and responsible.

According to McArdle (2015) a list of other methods does include:

- Multimedia training: in simple terms it is using more audio and visual and software to carry out training.
- Distance learning: that is a student learns on their own, which does require dedication on the student part but pose many challenges with respect to access to internet if need be

It is important to note that the methods are forever evolving as time passes and the importance of a good need assessment is clear as some methods above are costly to prepare, monitor and carry out.

3.10 Training in context: Before and after training

There is always a need to learn continuously and one way can be via informal training which can be beneficial as an individual can absorb skills without pressure or the stress of failure and from an employer point of view the same as costs are involved, with respect to money and time (Bell, Tannenbaum, Noe, Ford, & Kraiger, 2017).

According to Noe, Clarke, & Klein (2014) it is vital to actually break down the functions of a task so much so that it is easy to comprehend, adapt and develop the skill required to actually carry out the task.

According to Bell, Tannenbaum, Noe, Ford, & Kraiger (2017) in looking at training over the last 100 years, there is a need for a lot more research to be carried out, investigated and deduced with respect to "pre-post training" effects especially now more than ever as technology is evolving at a rapid rate.

This is also noted by Salas & Kozlowski (2010) that reveals that a lot of companies don't go and get valuable feedback from the trainees post training as this need to now be monitored more closely and a lot more research is required in this area.

3.11 Advantages and Disadvantages of Training

There are various advantages and disadvantages to training and development for a person and an organization. As stated that this new world of work is extremely competitive and according to Bashir & Jehanzeb (2013) states that organizations going forward require employees that are able to adjust to a very competitive and ever changing environment and that one of the main ways in which companies do this is by investing into training of employees which they use as a tool to compete.

As revealed training does require investment and as discussed there are various laws around the world that encourage organizations to invest in training in 2007 the American Society for Training and Development reported that as much as 126 billion dollars were invested in that year on training and development (Paradice, 2007).

Therefore if companies didn't receive a good rate of return of their investment, the continuous investment into their employees' development would have been diminished or done away with. This can be seen by Ibrahim, Boerannoeddin, & Bakare (2017) that conducted a study in an emerging economy country, Malaysia as there are plenty studies done in developed countries, and showed a 14.5% increase in soft skills performance in their specific companies, not only that but also noticed changes in behavior and interaction between employees.

As it is with investment of any kind there can be drawbacks likewise with relevant training to keep up with trends can be costly to companies and can be a double edge sword for some. And has noted by Masalimova, Usak, & Shaidulling (2016) allowing training can lead to time of actual work as pose challenges with daily tasks.

Another disadvantage is that if training is seen as unimportant or encouraged in the place of work, which leads to a waste of time and other resources. And if proper training needs assessment isn't done then value of the training is not shown to the employee and training becomes a fruitless task (Mzimela & Chikandiwa, 2017).

Other advantages include, according to Bashir & Jehanzeb (2013) include career competencies that is staff will be able to actually diversify and build on their skills as they try and attain personal and professional goals and this can include a possibility of earning a higher salary.

Employee satisfaction is another advantage, having a sense of accomplishment as one completes something is just as important and it reveals to the employee that the organisation does care and value them (Bashir & Jehanzeb, 2013). According to Wagner (2000) stated that this also leads to a lower rate of staff resigning (staff turnover) and a prolonged period of loyalty to a company.

Employee performance is also affected by training and this can be seen by Karthik (2012) that reveals that trainees that underwent training did perform better at their tasks and this is as their behavior and attitude toward work did change. According to Armstrong (2012) stated that when trainees up skilled and learnt more their output was enhanced by the training. Positive effects on behavior post training was also noted by Bashir & Jehanzeb (2013) reveal that employees felt satisfied and were willing to do more for the company.

There are also benefits attached to the organisation as well, where their market growth has been affected and training has given them a competitive edge Bashir & Jehanzeb (2013) and this can also be seen by Kleiman (2000) that reveals that there are major organizations that do spend massively on training and development, example Microsoft and these companies do see it as a viable investment.

Another two reasons are the overall performance of the organization improves as people are more skilled to perform more efficiently and because of this, saw better retention of them in the organisation (Bashir & Jehanzeb, 2013). And Powell & Yalcin (2010) confirms that a major contributor to this is that employees feel valued as there are more opportunities becoming available to them.

As it can be seen that there are many advantages and disadvantages but the advantages do outweigh the disadvantages.

3.12 The importance of knowing trends

Knowing trends in the flied of human resources and industrial psychology is important as not only does it affect the production of knowledge it also has an effect of future decision making, from legislation to how companies, both public and private utilize these trends to make better decisions about the future. This can be seen by (Turns, Atman, Adams, & Baker, 2001) that reveals that once trends are identified it then it does in turn create a valuable opportunity for research to be built on in the future while it allows various aspects of knowledge to be examined.

This also allows knowledge to be mastered by researchers while encouraging critical thinking and viewing these disciplines from various perspectives to enhance quality and build on knowledge production (Turns, Atman, Adams, & Baker, 2001).

According to (Carpenter & Curran, 2013) developing, knowing and building on trends confirms that this does play a vital role in development of the profession and it not only facilitates learning but also permits the opportunity for reflection on what is happening in the field and gives rise to opportunities for renewal of research.

Knowing trends in training and development is also growing as investment into these fields grows. According to (Albu & Danila, 2009) knowing how training and development trends are emerging and in what direction is vital as it has a profound impact on future development.

It is also important to be "knowledgeable" of trends in training and development as it has a direct impact on decisions a company makes with respect to employee development (Albu & Danila, 2009).

It also has a profound effect on assisting in predicting patterns in internal human resource management and allows key decision makers, scholars, managers aware of challenges and pitfalls that needs to avoided and addressed (Albu & Danila, 2009). It therefore plays a critical role in forecasting and decision making that has an effect on all relevant stakeholders.

3.13 General Trends and the Future of Training and Development

As seen thus far the general and future trend so far is the introduction, adoption and absorption of technology. There will always be a demand for skilled people and according to Dachner, Ellingson, Noe, & Saxton (2019) stated that this is ever increasing and this will be the general trend over the next few years.

Other trends will include besides the addition of technology across all scope of work would be organizations that limit vertical movement for improvement as they will move toward flatter organizations and a more open minded workplace, one that will enhance creativity and problem solving (Dachner, Ellingson, Noe, & Saxton, 2019).

As the new age of work dawns, the old employer-employee relationship is fast becoming obsolete and will soon be non-existent as the employee will be in charge of their personal development although the organization will provide the necessary training to be competitive in the marketplace (Dachner, Ellingson, Noe, & Saxton, 2019). This is also seen by Herd & Li, (2019) that states that people should start preparing from now and try to design their own training spaces or areas to improve their skills.

This does share the responsibility and the sharing of the cost as well. And according to Dachner, Ellingson, Noe, & Saxton (2019) there will be more job hoping so it is imperative that human resources build an agile workforce to respond and this is further enhanced by Rossenburg, et al (2018) that revealed prepare for less commitment for individuals in the long term as this will be a major trend.

Having this agility will be vital as human resource of the future must somehow redesign and reengineer practices as all companies will move to unique approaches and no more one size fits all approach (PWC, 2018).

According to Suhasini & Suganthalakshmi (2015) training will have to be more collaborative in nature and as new technology enters, employees must be involved from the start and move from where it was expert based to a move collaborative based for learning to take place.

According to Herd & Li (2019) the future is a place of "creativity", where it is welcomed, appreciated and encouraged and according to PWC (2018), this is where the true strength of an organisation will lie.

According to Herd & Li (2019) and as revealed that a hub for continuous learning as to be the norm and according to Jagannathan, Ra, & Maclean (2019) practical and academic learning will be more fused and combined as the demand for skills increases.

They go further and reveal that qualifications will become obsolete and the educational system must keep up, for example: if a graphic designer takes 3 years to complete their full qualification by the time they graduate, more and better technology, programs and software would have entered the market and the graduate will need to undergo training in the workplace therefore it is vital that the educational system also keep developing with the needs of the world (Jagannathan, Ra, & Maclean, 2019). Therefore training and development still has a continuous and vital role to play.

Now there is fast becoming a time that we will if not already are working with or alongside some type of automation or robot of sorts. According to Libert, Cadieux, & Mosconi (2020) we will have to becoming accustomed to this as all work environments, will introduce "robotics" into work procedure which is a double edge sword, especially for poor or developing economies.

According to Caltiz, Poisat, & Collen (2017) companies will have to adopt this and as well as technology models to keep up and this will cause tension because people will fear retrenchment or the loss of a job but companies should gradually introduce these types of technologies with plenty consultation with unions and employees as the idea is to try the very best to work with a robot and not be replaced by one, that is coexist and have "collaborative robots (Cobots)" and training with respect to this must be the driving force to assist in usage and the elimination of certain fears.

And according to Caltiz, Poisat, & Collen (2017) laws governing the entrance and usage of technology must be produced and enforced as households of people will be impacted. This can also be seen by a study conducted by PWC (2018) hat shows that both organization, all stakeholders and government must ease the routine of using technology and not have a haphazard no plan approach to achieving a favorable outcome and in the same study more than half of the respondents believed that policies must be created by the government.

This is also echoed in another study Institute, et al (2017) and reveals government must be the enforcer as quickly as possible to avoid massive labour, educational and resource issues in the future and that training and educational preparedness must commence on an intense level.

According to PWC (2018) already a third of the work force is worried about these issues and how people actually respond to all these changes will be the deciding factor on the survival of a country let alone the organisation. According to Artificial Intelligence and Robotics and their impact on the workplace (2017) the BRICS counties are already becoming less attractive by outside investors and if these countries are not prepared for the future they will further do harm to its economies as the struggle to remain competitive intensifies as Asian counties continue to pull away.

Research has shown that 98% of people in the accounting work will be done by software that requires updates on certain annual laws of that country and so it is imperative that all get involved to prevent massive job redundancy (Institute, et al., 2017). And that over 37% are anxious regarding their replacement by a machine (PWC, 2018).

But there is hope in a study conducted by PWC (2018) it was recorded that 52% of CEO's are willing to allow people and machines to work alongside each other and reveals that the entire worlds focus must shift from the franticness regarding automation and more towards the use of technology by people and how people can be assisted and trained to use these new technologies and work alongside robots.

Therefore a massive way out will be to prepare for the future and to develop models and a workforce that is more open minded and there is change as 74% are willing to undergo training or to be retrained into newer updated skills and technology (PWC, 2018).

As it can be seen that the future does seem uncertain and we are moving into the unexplored but if all role players, stakeholders and people play a part in welcoming changes, the future

does look easier with technology and training and development will surely play a major role in all industries and economies.

3.14 Training and Development from a Human Resource Management and Industrial Psychology Perspective.

As shown thus far the vital role played by human resources, industrial psychology and the need for continuous training and development. There will always be challenges along the way as time moves on and will require creative solutions.

As seen from the discussions thus far that these fields and sub-fields complement and assist each other and how one feeds and support the other and this support will have a greater impact as more changes in the world occur.

According to Erusmus, Loedolff, & Hammann (2010) the individuals in these positions must understand the business better and break down it processes only then can they offer more assistance in helping the business in diversifying its skill based through better training programs and predicting the future needs.

From a human resource point of view, they will have to deal with training issues while balancing productivity and adapting to the new ways of work and the introduction of technologies (Erusmus, Loedolff, & Hammann, 2010). And according to Abeguki, Paul, Akinrole, & David, (2014) adequate time must also be allocated to apply the learnt skills so proper feedback can be attained and reviewed and adjustments can be made if need be as time is an expensive commodity in a high performing industry.

Training will have to seen as a "win-win" activity and it the duty of human resources to prove this and how it affects the overall existence of a company (Truitt, 2011). The creation of an active learning environment with goals and most important, the creation of policies and changes to policies in place to assist in making sure that employees and their skills does not become out dated (Vinesh, 2014).

Form an industrial psychology perspective, trying to motivate and gear up a dynamic, agile and forward thinking workforce that doesn't offer much resistance would be its greatest challenge.

Preparing for turbulent times will be fundamental and taking care of an employee general wellbeing will be the norm by offering counseling and measuring the strength of employees

and offering solution as keeping an organisation happy and productive is a challenging balancing act (Vinesh, 2014).

According to Abeguki, Paul, Akinrole, & David (2014) reveals that industrial psychologists will have to keep a close eye on how learning is progressing and making sure developmental targets set are on par while balancing all other challenges.

As it can be seen that it will require a lot of effort to make sure that people don't become robots or obsolete and avoiding dehumanizing therefore the role of human resources and industrial psychologist is going to be more profoundly felt in the coming years.

3.15 Conclusion

The review of the chapter dealt heavily into training and development and how it has evolved over the years and the challenges that it has been facing. Training and Development has forever evolved and is now leaning away from the traditional classroom based approach to a more, user friendly, digitally savvy, skills based approached.

With respect to the Covid-19 Virus and its challenges has also allowed for the digitalization of training programmes with the adoption of many online, study anywhere approach and at anytime. It has lead to a more flexible approach for an employee or student to acquire and keep up to date with training programmes set out by companies and educational institutions.

Taking into account that although technology is a major role-player in the roll out of training programmes it cannot be the sole delivery method due to many contributing factors, example: not everyone is comfortable in using computers and or smart devices to learn from as the attainment some certain skills require the student/ trainee to be on the field of work, example mining, health and safety, sciences and so forth. The social and economic and technology challenges that has also plagued South Africa and the rest of the world, example the access to the internet and adequate data to use online programmes poses an entire new dimension to the challenges being faced.

However although taking, everything in this chapter into account, the conclusion is that training and development has come a long way from scientific management and is continuously evolving.

CHAPTER 4

Research Methodology

4.1. Introduction

The research methodology chapter looks at the procedure to collect the various data that makes up the data-set of the study. Additional aspects that are covered in this chapter are the non-probability purposive sampling technique used in this research and various other factors such as reliability and validity, trustworthiness and credibility, inclusion-exclusion criteria, descriptive statistics and thematic analysis.

4.2 The difference between research methods and research methodology

There is a difference between research methods and research methodology. Rajasekar, Philominathan, & Chinnathumbi (2013) Explains that research involves steps that are rational, systematic and revolves around information and ideas, pertaining to a particular topic that is ultimately useful.

Research methods are explained by Rajasekar, Philominathan, & Chinnathumbi (2013) by procedures that are utilized and that these procedures involve planning and are also scientific in nature, example: theoretical procedures.

Simply put these research methods assist us in the collection of data and problem solving. Rajasekar, Philominathan, & Chinnathumbi (2013) stated that scientific research only accepts clarification and findings that are deduced, by the conducting of experiments and not solely by observation.

With respect to research methodology, Rajasekar, Philominathan, & Chinnathumbi (2013) explain that this is a methodical and an orderly way to solve a problem and it reveals to us how the research ought to be carried out. Therefore simply put it shows us how knowledge **is** acquired and the procedures that a researcher undertakes in explaining, rationalizing and forecasting phenomena.

The research process, according to Saunders, Lewis, & Thornhill (2009) is known to describe by using an "onion as a metaphor" as seen in the illustration below.

This entails, that before one can get to data collection which is in the inner circle (the research method), and many layers are required to be peeled off prior, that is the outermost part of the circle is considered the research methodology of the study.

Below is a diagram revealing this "metaphor".
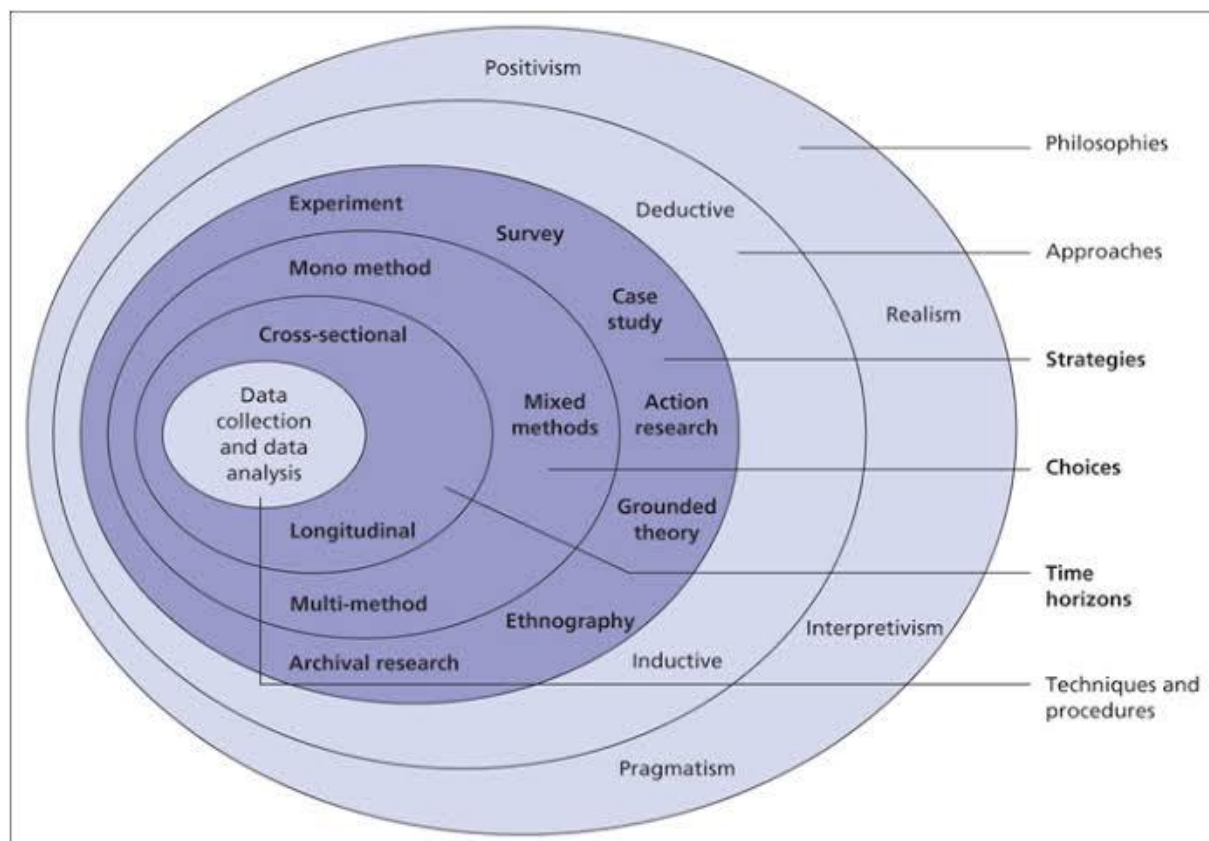
Figure 4.1: Diagram of a research onion

Source: (Saunders, Lewis, & Thornhill, 2009, p. 108)

4.3 Types of research methods

In this study the mixed method approach was adopted and utilized however there are there are three types of methods in research, namely quantitative, qualitative and mixed method. All will be explained below.

4.3.1 Quantitative methods

According to Cresswell (2014) explains deeper that, this method is to assist the researcher to project their findings to the larger population, by means of the relevant data collected. This data can then, be analyzed and the findings can be imitated within the entire population.

Gerring (2017) revealed that the quantitative method gives the researcher an opportunity generalizes the findings across a large population and thus adopting a nomothetic style of analysis. It has to be pointed out that quantitative method is supported by a large-N analysis and Gerring (2017) reveals that this type of work usually makes use of systematic (random) sampling.

4.3.2 Qualitative methods

Cresswell (2014) sustains that qualitative research is distinguished by the existence of contextual data and this data is collected via means of any or a combination of, interviews, surveys, focus groups and document analysis and gives rise to and idiographic style of analysis.

Gerring (2017) stated that qualitative work is articulated in natural language and quantitative work is articulated in number format and utilizes statistical representation. It is also made up of smaller samples and depicts cases that are selected in a purposive fashion.

4.3.3 Mixed methods (Concurrent) mixed method approach

The concurrent mixed method approach will be utilized in this study. This is explained by Creswell, Klassen, Clark, & Smith (2017) that revealed that mixed method approach makes use of thorough quantitative research and thorough qualitative research and this is used in exploring many meanings and the understanding of constructs.

Creswell, Klassen, Clark, & Smith (2017) Goes further and states that this method allows us the opportunity to transform findings into new knowledge. This method also requires the merging of data, that is the combining the qualitative data in the form of texts with the quantitative data in the form of numeric information. And this will be done in this study.

The researcher will do this using two ways, one will integrate by reporting results and this will be accompanied by a discussion section of a study, which is reporting the quantitative

statistical results and then following it up with qualitative themes that will approve or disprove the quantitative results.

The second way will be done by counting the themes in the data set and then so that qualitative results can be compared with the quantitative dataset. According to Castro, Kellison, Boyd, & Kopak (2010) the reason behind concurrent mixed method design is that is utilizes qualitative and quantitative data more precisely and then continues to define relationships relating to characteristics and various variables.

Figure 4.2 (Below), depicts the mixed method approach that will be used in this study. The diagram is adopted from Poth (2017, p. 11), which reveals that one should follow, firstly by acknowledging the broad assumptions of the study, and then one should determine if the problem is suitable for this approach.

Thereafter the researcher will need to establish the mixing purpose of research and only once completed then the researcher can develop the draft research questions as integrative focused and then position the need for research within literature synthesis. Following this, the researcher will be at the, describe the design phase.

Post the, describe and design phase, the researcher will have to collect quantitative and qualitative data, to analyse and integrate the data based on design. After the data is analysed the findings can be represented and the generation of valid insights can be done. The next phase will entail the findings being discussed and finally the disseminate research implications.
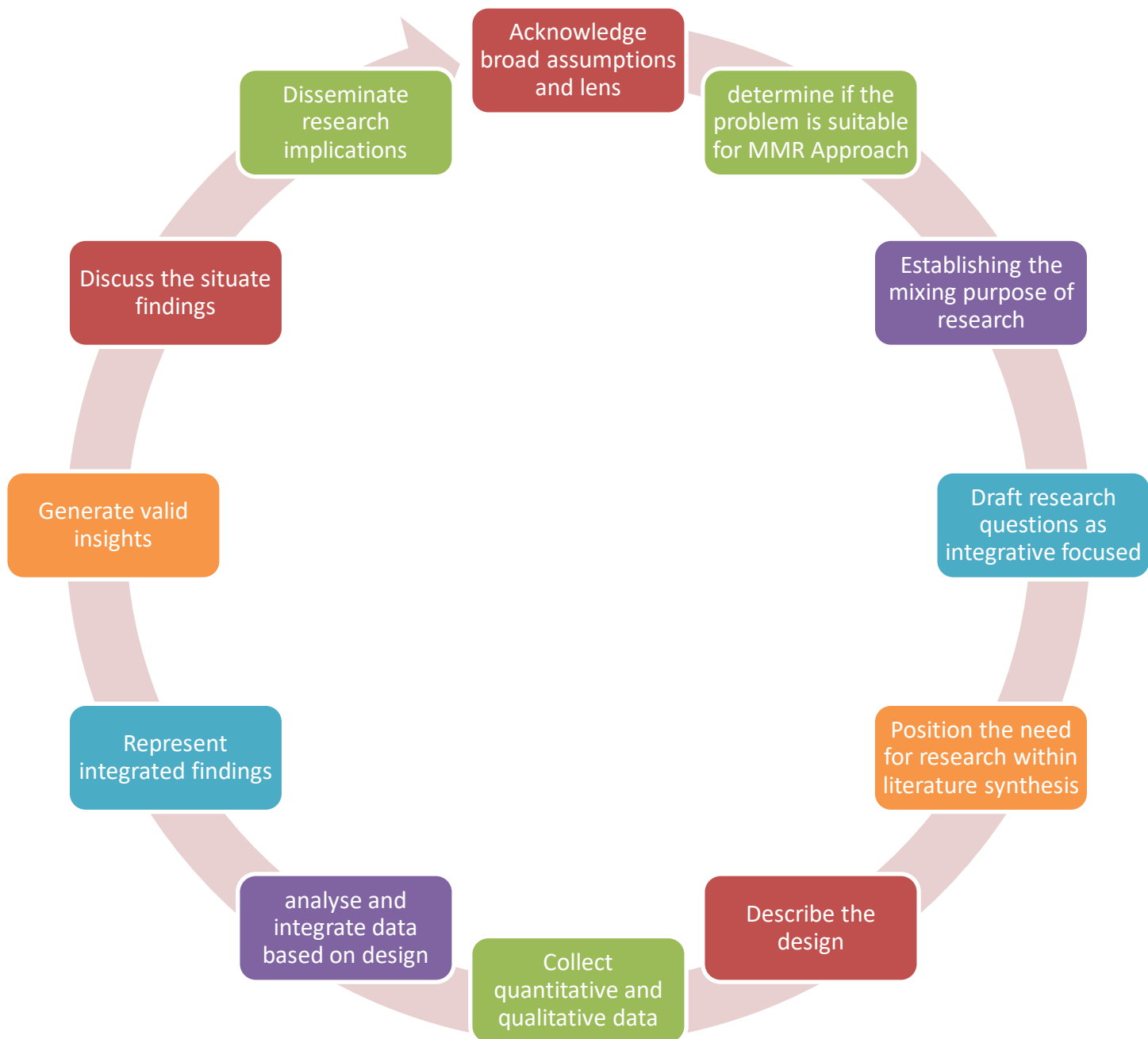
Figure 4.2: Diagram showing the Mixed Method Process

Diagram sourced from (Poth, 2017, p. 11)

The concurrent mixed method approach adopted for this study does combine both qualitative and quantitative data collection methods. This allows the researcher to collect more accurate results for this type of study and also assist by giving the researcher a more complete vision of the problem.

This is also shown by (Almeida, 2018) that states that by doing the concurrent mixed method research approach, it gives the researcher freedom to collect information qualitatively and quantitatively instead of solely relying on one method.

This form of an approach did speed up the data collection because this collection of the data is done parallel. It allowed the researcher to them analyse both qualitative and quantitative data at the same time as well.

 It is also important to note that this research approach is becoming more accepting in the research community and it now the third largest approach (Almeida, 2018).

4.4 <u>Research Questions</u>

The research questions underpinning this study are:

1. What are the key empirical trends in Training and Development from the years of 2003 to 2020 in the South African Journal in Human Resource Management and the South African Journal of Industrial Psychology?
2. What are the key theoretical trends in Training and Development from the years of 2003 to 2020 in the South African Journal in Human Resource Management and the South African Journal of Industrial Psychology?
3. What are the implications for practice in Training and Development based on these trends in training and development in the South African Journal in Human Resource Management and the South African Journal of Industrial Psychology?
4. What are the implications of these trends for future training practice and theory?

4.5 <u>Research Paradigms</u>

It can be noted that the first time the word paradigm was made use of, was in 1962 by Thomas Kuhn and all it meant was to think in a philosophical way (Kivunja & Kuyini, 2017).

It is emphasized in Kivunja & Kuyini (2017) that a paradigm comprises four elements, namely, "epistemology, ontology, methodology and axiology". It is important to have a firm understanding of these elements because they comprise the basic assumptions, beliefs, norms and values that each paradigm holds.

Therefore, in locating your research proposal in a particular research paradigm, the understanding is that your research will uphold, and be guided by the assumptions, beliefs, norms and values of the chosen paradigm. It is therefore important that you demonstrate that you know what each of these elements mean.

4.5.1 Epistemology of research

Richards (2003) relates to us that epistemology are, in fact the general statements and or assumptions, which are made about knowledge and how to find out more about the world we live in.

Now, Scotland (2012) shows us that epistemology will also assist us in providing philosophical foundations, when deciding exactly what type of knowledge are appropriate and deemed relevant.

According to Manion and Morrison (2007) also states that epistemology is connected to assumptions that one makes based on knowledge, and more importantly how can one attain and arrive at, this knowledge and relate it to people.

Over two decades ago, Crotty (1998) revealed that epistemology is actually the way we look at the world and how best we try to understand it and to some degree dealing with understanding that knowledge as well.

It has to be noted that a commonality among the above authors is that all of them emphasize and stress that the method of epistemological assumptions that we construct or hold about knowledge will greatly affect on how we go about, revealing and displaying knowledge of various social behaviour.

There are four research epistemologies that will be explained in the section that follow, namely interpretivism, positivism, pragmatism and triangulation.

Positivism

According to Kivunja & Kuyini (2017), this approach was first used by French philosopher, Auguste Comte (1798 – 1857), and simply put, this approach, tries to define a holistic view to research, for example: the scientific method. So this is used to better understand human behaviour which will in turn expand our knowledge and help us understand people in general better. Therefore this will entail conducting experiments to answer questions. And according to Kivunja & Kuyini (2017) the main aim is assist in making predictions to help make better decisions.

Hence this means that the researcher must be able to make predictions, and expect to generalise these predictions anywhere in the world. Therefore according to Kivunja & Kuyini (2017) for a researcher to make these assumptions anywhere in the world, their work will rely profoundly on quantitative methods.

Interpretivism

According to (Bryman, 2008), this approach totally rejects the positivist approach and states that there are other ways to gain knowledge other than simply using observation. This could possibly mean using perception to gain valuable insight to understand the world.

And according to Kivunja & Kuyini 92017) revealed that results can be produced by understanding, the environment in which people are being studied. That is to be more focused on interpretation and knowledge can be produced by how people react and or reflect to various events as well.

On the other hand, Kivunja & Kuyini (2017) makes it known that the researcher, in this approach cannot be detached from the actual research and unavoidably will become personally engaged and the finding will therefore be somewhat influenced.

Pragmatism

According to Kivunja & Kuyini (2017) this paradigm approach was developed by philosophers who revealed that, one cannot determine the truth of what is happening in the real world solely based on one scientific method like the positivist approach and argued that it was also not possible that to establish social reality based on just using the interpretivist paradigm.

According to Kivunja & Kuyini (2017) this lead to further investigations and arguments by various philosophers and theorist that gave rise to a paradigm that was more practical and allowed a combination of methods, and in turn could assist in the study of behavioral patterns from various participants. This lead to the birth of the pragmatic paradigm and it promotes the utilisation of mixed methods to comprehend human behavior. Therefore this paradigm is relationship based and put an end to two totally opposed positions (Interpretivism and Positivism).

According to Creswell (2009) shows us that the pragmatic approach provides us the opportunity to utilise both qualitative and quantitative approaches when undertaking research. It assists us in investigating various complex social occurrences and events. This helps a researcher to use this approach to conduct a study with mixed methods from a subjective and objective standpoint. Cresswell (2014) further emphasizes that this type of paradigm is best used for the mixed method approach.

With respect to this research, pragmatic epistemology was used. It was an approach that best suited and aligned with the type of study that is being conducted. As this study makes use of mixed methods approach, it doesn't align and conform to the other approaches, like positivism and interpretivism. Hence the pragmatic epistemology was adopted.

Triangulation

According to Noble & Heale (2019) triangulation is deemed a method that is generally used to boost the credibility and validity of research findings. They go on to further emphasize that this method with the combination of theories in a study can assist in making certain that biases that is usually associated with a single method is overcome.

And according to Noble & Heale (2019) this method can help explain human (people) behavior and patterns using various methods and give a more accurate explanation to the public. This can be seen by Wilson (2014) that tells us that this method will add a greatly enhance the undertaken research as it looks at various datasets to explain a topic of interest. Flick (2002) pointed out that there are four methods to triangulation, namely data, investigator, theory and methodological.

4.6 <u>Methods of analysis</u>

Jaradat (2018) stated that the research design is a vital topic and it is essential to research studies in many disciplines, this includes social and management science. Burns and Grove (2003) state that research design can be defined as the blueprint for research studies. According to Jaradat, (2018) after the researcher has selected their research topic, then choosing the appropriate design is conceivably the most imperative decision a researcher will have to make and explains that the research design phase is there to actually provide answers to the formulated research questions in a non vague manner. In other words, the research design actually takes into account the data that is required, the methods used to collect this data and how you are going to analyse this data, and how all of this combined is going to answer the research question at hand. Therefore it is the overall plan.

Both content and thematic analysis will be used in this research and it will entail an analysis the actual content within the articles in these two journals, SAJHRM and SAJIP. By using these designs it became apparent that it will be the most useful to the researcher as in-depth study of the articles was conducted. The researcher will extract various data pertaining to training and development in South Africa to produce the data set and then analyse the data set further. Various statistics methods on how the research will be conducted will be explained and themes that will be formed will be analyzed and discussed.

4.6.1 Content analysis

According to Haggarty (1996) reveals that content analysis entails that data is collected by a researcher and this is analyzed systematically, in a way that generalizations can be made in relation to categories. Therefore in this study both qualitative and quantitative content analysis was utilized and the data that was extrapolated was a combination of statistics and theory.

Haggarty (1996) further reveals that content analysis is a research tool and it assists in uncovering the occurrence of certain words or concepts.
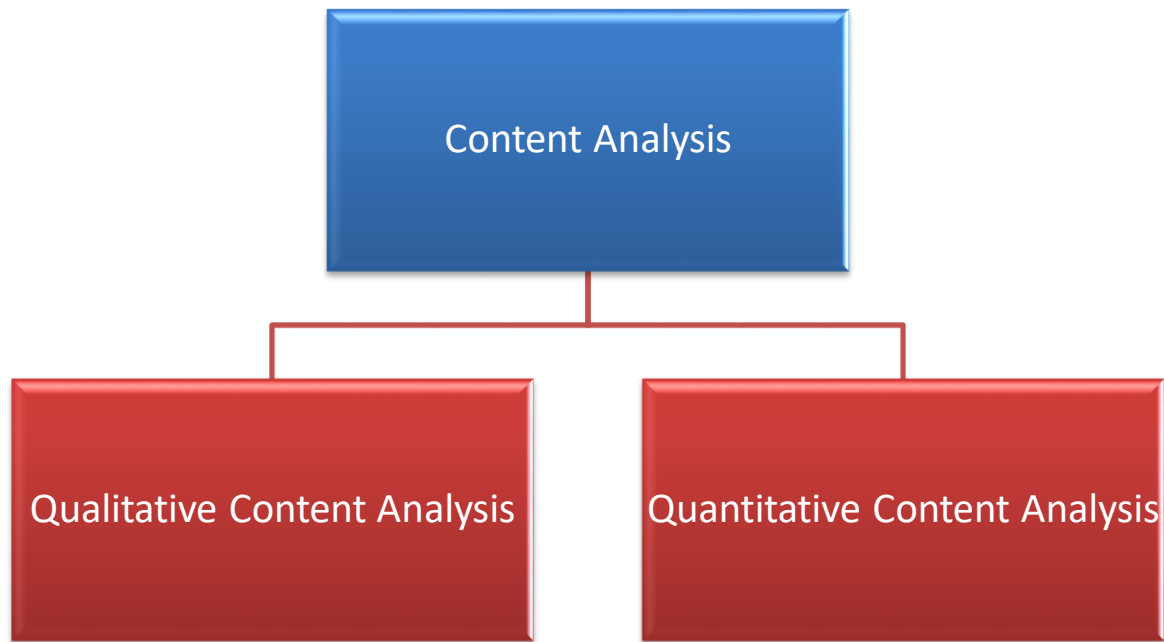
Figure: 4.3 Diagram of content analysis

Author's Illustration

4.6.2 Qualitative content analysis

According to Erlingsson & Brysiewicz (2017) which shows us that that this type of analysis involves any type of study that is both classified and categorized and goes further to reveal that there is an increasing acknowledgment regarding the importance of qualitative research and its value and helpfulness across diverse fields of study.

The main intention surrounding qualitative content analysis is to methodically and logically transform big amounts of text into accurate imperative results Erlingsson & Brysiewicz (2017). By going one step further, this type of analysis involves the abstraction and organization of raw data to produce categories or themes and this can be done as shown by Erlingsson & Brysiewicz, (2017) extracting themes from the literal content to latent significance.

It also has to be noted that this process is a subjective process and that one's intuition is a huge skill with respect to conducting this type of analysis, and according to Erlingsson & Brysiewicz, (2017) your intuition in this type of analysis cannot be entirely dismissed as "unscientific".

Intuition is born from implicit knowledge and can be challenging to be transferred between individuals as it is tacit in nature. Therefore according to Erlingsson & Brysiewicz (2017) it is somewhat imperative to sustain an attentive awareness, from the researchers own prior knowledge and this is done to avoid all types of biasness and prevent the results from being deemed incorrect.

Gheyle & Jacobs (2017) showed us that qualitative approach's must also undergo an analytical process, this means that the researcher will need to come up with their research questions, undergo the collection of their dataset, code the data and prove it trustworthy. This approach differs from the quantitative approach when categorizing and coding your data.

This is shown by White & Marsh (2006) that this approach is more inductive in nature and categories are not formulation prior to the research being conducted and leans more onto open-ended questions. This means that instead of determining the categories and undergoing coding prior, the researcher relies on coding and analyzing while conducting the research and therefore constructs categories while going through various texts.

4.6.3 Quantitative content analysis

According to Krippendorff (2004) noted that the first time this analysis was performed was when data from a newspaper was initially coded and placed into various categories, these categories was later discussed using various statistical tools and graphical representation. From this statement one can deduce that with respect to quantitative content analysis various; statistical tools are applied to describe the dataset. Therefore the methods applied uses multiple forms of graphical representation (visual) and written representation. According to White & Marsh, (2006) there are some important aspects to this approach, example: the creation of hypotheses, data sampling and how the data is planned to be coded.

According to White & Marsh (2006) this approach is deductive in nature and this simply means that categories must be chosen and that the researcher needs to know what information goes where. With respect to coding of the data, after this has taken place then various tools can be used to examine and scrutinize the various results; however this will also be a great litmus test for testing the reliability and validity of the approach (White & Marsh, 2006).

Krippendorff, (2004) revealed by looking at the graphical representation as an entire picture, many pitfalls can be avoided; example ambiguity with the results as this will have a massive impact on the outcome and recommendations after the study has been completed.

For this undertaken study the researcher had opted for both qualitative and quantitative content analysis. The data from the data constituted both theory and statistics and this led to these two types of analyses being utlitised. A concurrent mixed method approach will be utilised and is underpinned by the use of secondary data regarding training and development in South Africa. These journal articles will be analysed by using quantitative and qualitative forms of content analysis.

Taking this into account, in respect to quantitative content analysis, the researcher extrapolated data from the two journals, namely SAJHRM and SAJIP, each article was looked at from the time period 2003 to 2020 and then the researched used inferential statistics to make sense of the research patterns of various variables, example: authors publishing in these journals. The patterns are presented and discussed in the chapters that follow.

Following this qualitative content analysis involving thematic analysis was used in this research. Once initial coding is complete, I will move from primary themes to secondary themes. Keywords will be undergoing thematic analysis; this will be done by analysing all key words in the data set and searching for commonality. This will give rise to the second order themes, which will be reviewed and defined, followed by reports.

4.7 <u>The population</u>

In this study the term population does not imply the population of an area, place or country. According to Pandey & Pandey (2015) a population means characteristics of objects, groups or activities that are used by researchers to identify and acquire new knowledge.

The figure below represents the relationship between general, target and accessible populations. From the diagram one can deduce that the general population is inclusive of everyone or everything. Since this is so large and everything or everyone cannot be observed Asiamah, Mensah, & Oteng-Abayie (2017) states that one needs to consider the target population, which simply means the objects or people that are of interest specifically to the research. According to Asiamah, Mensah, & Oteng-Abayie (2017) explains that the needs access to the population and refers to this as a section of the target population and that is the accessible population, which is the population that the researcher can apply their study to and is deemed the precursor of sampling.

Figure: 4.4 .A Conceptualization of the Relationship between General, Target and Accessible Populations

(Asiamah, Mensah, & Oteng-Abayie, 2017, p. 1611)

With respect to the undertaken research the target population are all the authors who have published in these two journals regarding training and development from 2003 to 2020. A total of 88 articles relating to training and development will be reviewed out of a total of 2639 articles that was published in both journals relating to various other topics.

4.8 Sampling

According to Gaganpreet (2017) explains that sampling is a procedure that is utilized by a researcher to systematically select a fairly smaller number of representative items or people from a predetermined population that will undergo examination or testing according to the objectives of the study that will be conducted.

It is much more cost effective to study a sample than the entire population in a study as it is easier to control, more cost effective and more practical. It can be noted that the sample is part of the entire population. This can be seen by Polit, Beck, & Hungler (2001, p. 234) defines a sample as "a proportion of a population". The main aim of the sample is to draw certain conclusions and assumptions about the population in your study. By the researcher

drawing on certain the researcher can use genralisation for the rest of the population (Sekaran and Bougie, 2016).

4.8.1 The sampling frame

According to Taherdoost (2016) reveals that a sampling frame is an actual list of the cases from which sample will be extracted from and that the sampling frame has to represent the study population. In other words it is the actual source as to where the sample was chosen. According to Turner (2003) It must capture the target population. The sampling frame is utilized in a way as to ascertain the elements of a population (Fricker, 2012).

But Fricker (2012) warns that the researcher needs to avoid the pitfalls of duplication and or clustering when selecting a sampling frame, and that to produce a perfect sampling frame, one needs to aim for one-to-one mapping, that is initially from the frame to the population. And according to Turner (2003) states that the sampling frames should encompass a high level of accuracy, and should be current and complete.

For this study, articles were chosen form two journals, namely SAJHRM and SAJIP and the following inclusion-exclusion criterion *(below)* was used. The articles that dealt with training and development were chosen and this became the sampling frame of this study. Seventeen years of articles were assessed from, 2003 to 2020. These South African journals are open sourced and articles are published on a monthly basis and articles are not being republished or duplicated. Therefore there is a high level of accuracy and reliability around the sample frame. The inclusion-exclusion criteria listed below.

Inclusion criteria:

- Articles that focused on training and development from all the assessed articles
- Articles that appeared in these two journals over the time period, 2003-2020.

Exclusion criteria:

- No editorials
- No books or book reviews
- No peer-reviews

4.8.2 Sampling technique

There are two main sampling techniques, probability and non-probability sampling. And this can be seen by Taherdoost (2016) that states that sampling techniques can be divided into these two broad categories. As seen in the figure below:

Probability sampling simply means that any item in the entire population has an equal chance of being selected and included in the sample, example a lottery number Taherdoost (2016). It can be noted that a researcher can develop a sampling frame first and then use computer programs to generate a sample.

As with any techniques there are some disadvantages to probability sampling as well although it has the utmost freedom from researcher bias according to Taherdoost (2016) this form of technique it comes at a higher cost especially with respect to time and energy required to get the sample frame ready.

According to Taherdoost (2016) which states that non probability sampling is regularly linked with case study and qualitative research. It is important to note that according to Yin (2003) shows us that research that is case study based usually focuses more on smaller samples and deals with inspecting and dealing with real life phenomenon and issues.

It is vital to note that a sample in this regard does not need to be random but concise rationale is required with respect to inclusion and exclusion of articles, cases or individuals.
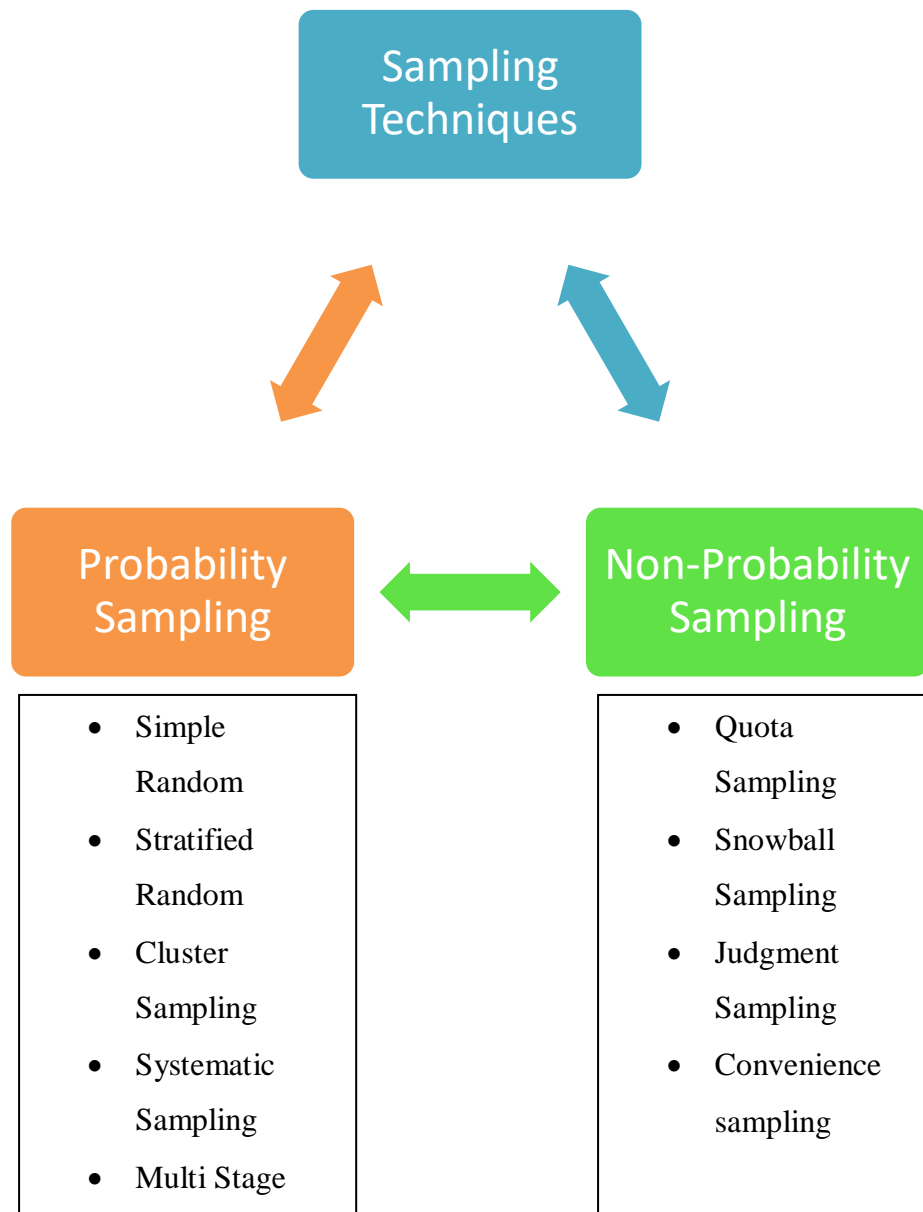
Figure 4.5 representing Sampling Techniques

(Taherdoost, 2016, p. 20)

4.8.3 Purposive non-probability sampling

For this research, the researcher used a concurrent mixed method approach and this is underpinned by the use of secondary data regarding training and development in South Africa. These journal articles will be analysed by using quantitative and qualitative forms of content analysis.

According to Taherdoost (2016) states that purposive which is also known as judgmental sampling is actually a plan in which particular information, be it person or events that are intentionally or purposely selected that technically cannot be obtained from other choices. In this study the inclusion-exclusion criteria was used and this can be seen by Taherdoost (2016) that shows us that a researcher can include or exclude certain cases, articles and applicants in the sample if the, researcher believes that it necessitates inclusion or exclusion.

According to Ames, Glenton, & Lewins (2019) explains that purposive sampling is a unique technique in that it relies on the judgment and opinion of the researcher when it comes to the units and components that is to be reviewed and studied and does provide an unbiased way of selecting studies for inclusion.

All journal articles published in these journals (SAJHRM and SAJIP since 2003 until 2020) were reviewed and articles relating to training and development were selected by utilizing the inclusion-exclusion *(as revealed earlier)* criteria.

4.9 **Data Collection**

Data collection assists the researcher in providing answers to predetermined research questions. According to Kabir (2016) this is a process of collecting and evaluating information regarding variables in an orderly manner.

In this study unobtrusive data collection method and this is a type of research that doesn't require a researcher to impede with the research. This can be seen by Auriacombe (2016) that states that this type of method does reduce biases within your research.

With respect to the undertaken study, the researcher reviewed journal articles from 2003 to 2020 in the SAJHRM and SAJIP. Articles were analysed and certain information was extrapolated and then data captured on an excel spreadsheet. Some of the information that was extrapolated were, implication for practice, keywords, affiliation of the authors, empirical trends, methodological trends, theoretical trends, and co authors.

The researcher proceeded to download articles from the relevant website for the years 2003 to 2020 and saved in a logical sequence. By downloading the articles in order, it made the sorting process easier to manage. A screen shot of this process was taken *(see figure below)*. Each year was saved in a different folder which made the articles easier to access and to keep track off.

To assist in keeping track of articles, each downloaded article was saved in a specific manner, example can be seen below. The sequences of naming each article were as follows: author's surname, initial and then year. Locating and accessing the articles were manageable.
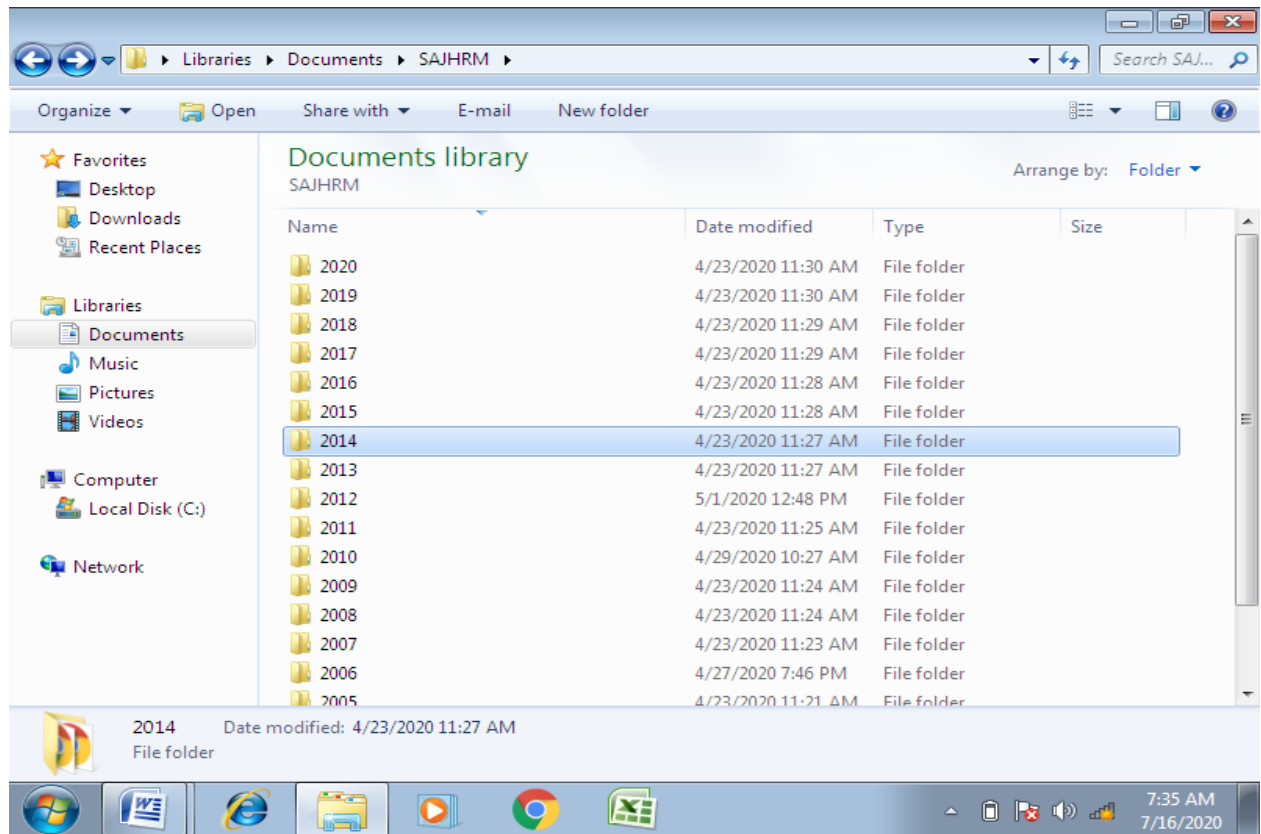
Figure: 4.6 screenshot of stored journal articles
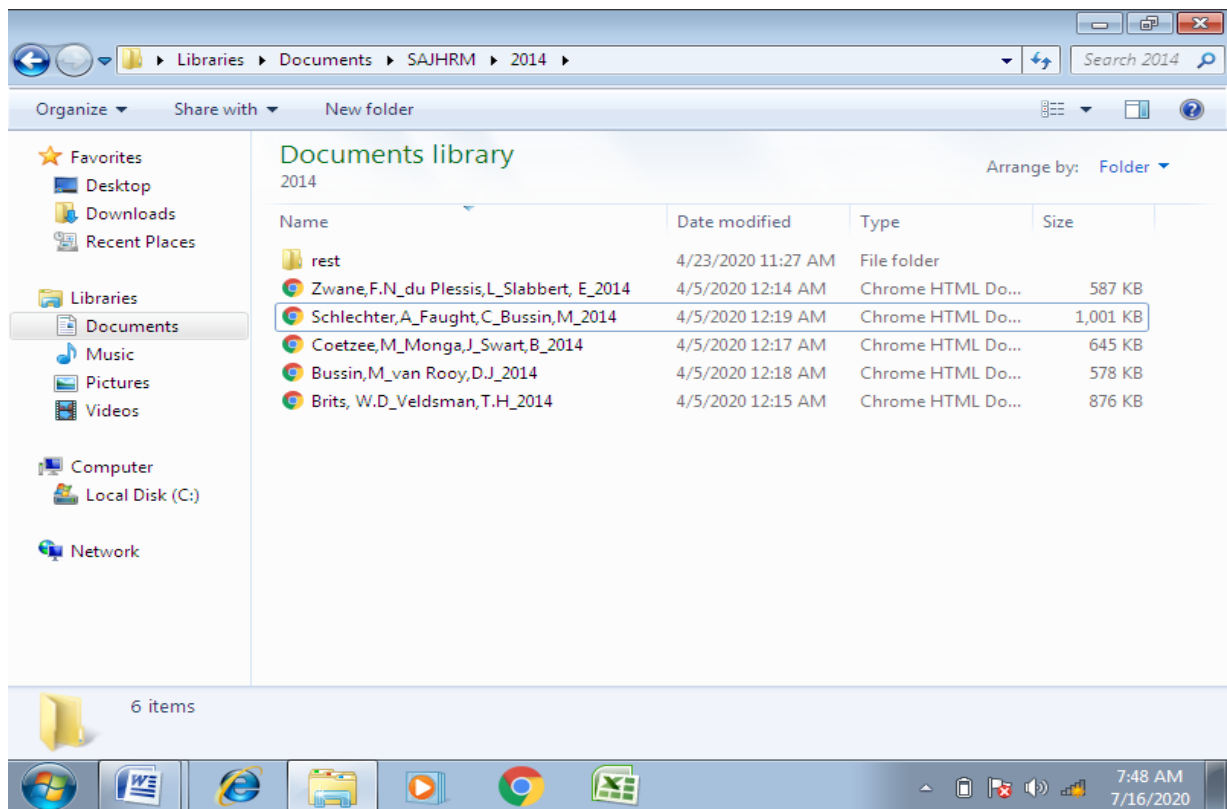
Figure 4.7: Journal articles sorted according to the data set

Year	T&D Articles (SAJHRM)	T&D Articles (SAJIP)
2003	0	1
2004	1	1
2005	3	2
2006	3	5
2007	1	0
2008	0	1
2009	2	4
2010	3	6
2011	2	2
2012	4	2
2013	3	1
2014	5	1
2015	1	1
2016	1	3
2017	8	3
2018	4	0
2019	11	2

2020	0	3
Total	**52**	**38**

Table 4.1 Showing number of Articles

The above table reveals the total number of articles, per year that dealt with training and development, from the two journals, SAJHRM and SAJIP. By developing this table, it made managing the, analysis process much easier to maintain as the researcher only had to focus on these articles in order.

4.9.1 Development of themes

As stated above, each article was analysed and variables such as implication for practice, keywords, affiliation of the authors, empirical trends, methodological trends, theoretical trends, and co authors was analysed and extrapolated and captured onto an excel spreadsheet *(as shown in the diagram below).*

At first all articles were read in the SAJHRM and SAJIP journals and articles that dealt with training and development were extracted. The researcher then looked at these variables and extracted the relevant information an example would be keywords which were identified in the articles, main words that best portrayed and explained the article were selected. This task continued until all articles were complete. Then the researcher stated to group the similar keywords, under one term, this process lead to the formation of themes in the study and ultimately a conceptual model being developed.
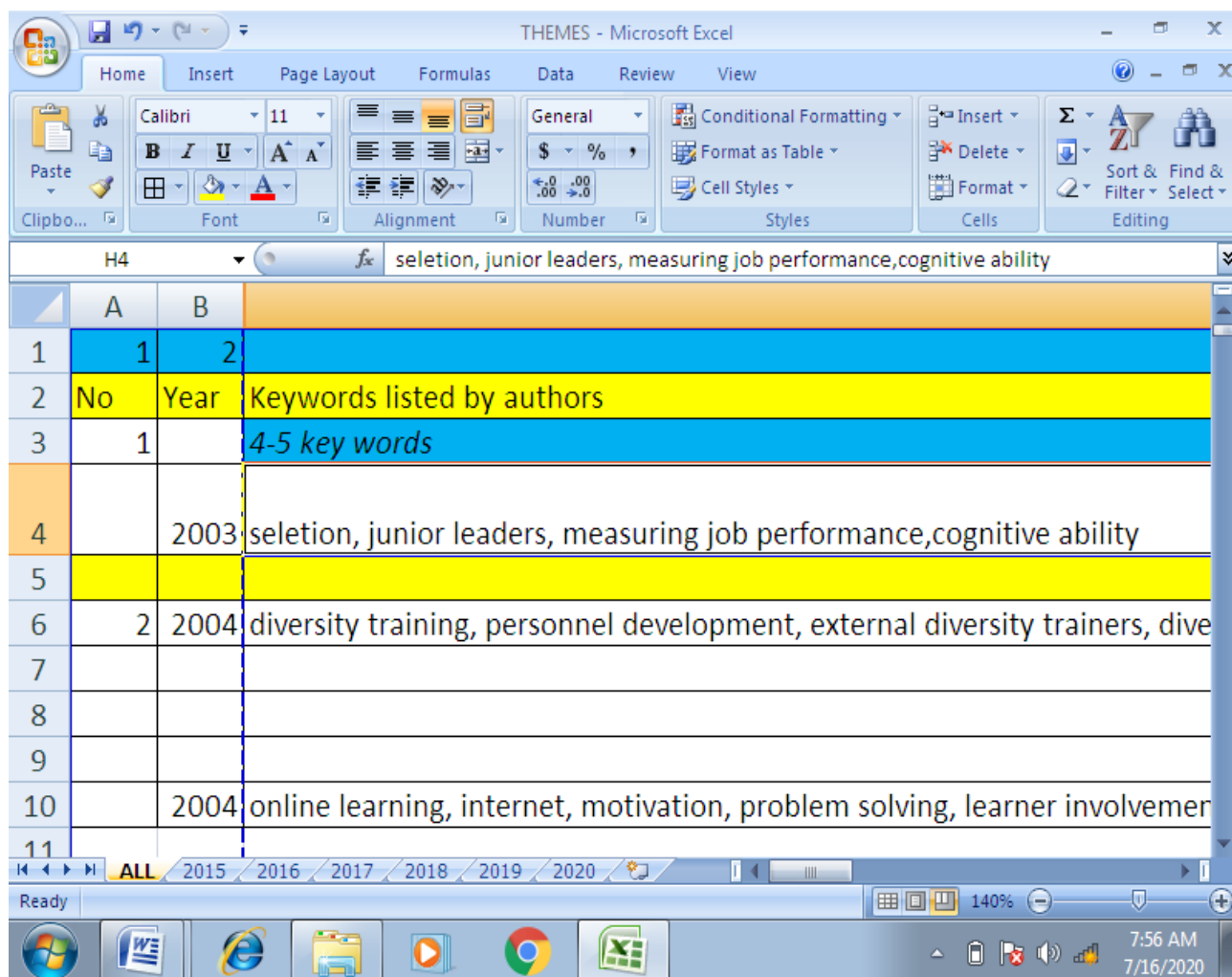
Figure: 4.8: Showing variables being sorted

The conceptual diagram below shows how the various variables interact with each other in the knowledge production cycle.

Scholarly Knowledge on Training & Development is produced in the two journals, the SAJHRM and SAJIP through publications. This knowledge is produced in the wider context of SA political, economic and social landscape. Knowledge production is shaped by the 7 variables which are implications for practice, keywords, affiliation, empirical trends, methodological trends, theoretical trends, number of authors.

These 7 seven variables will be further broken down into sub-variables. Together these variables and sub variables serve as descriptive indicators of how knowledge in Training &

Development is shaped. By plotting the variables and sub variables over a 17 year period, trends will emerge that will allow the study to answer its research questions.

- Implications for practice: this will let us know how recommendations from the articles will assist in training and development.
- Keywords: this will assist to find, common occurrences.
- Affiliation: this is to identify which authors are publishing.
- Empirical trends: this is the actual site to determine who are being studied.
- Methodological trends: this will let me know if the dataset are qualitative, quantitative or mixed method.
- Theoretical trends: this is used to determine if a theory or model was used in the dataset.
- Number of authors: this will identify the number of authors per article.

Knowledge Production

In

SAJHRM

&

SAJIP

2003-2020

Key Indicators

Implications for practice	→	Recommendations for management
Keywords	→	First order Themes investigated by articles
Affiliation	→	University/ Private
Empirical Trends	→	Actual Site/ Population
Methodological trends	→	Qualitative/ Quantitative/ Mixed
Theoretical Trends	→	Theory/ Model Used
Author/ Co-author	→	Collaboration patterns

Themes

Knowledge Produced for Training and development

Knowledge Disseminated through Journals

Context of Training and Development in South Africa

87

Figure 4.9 Conceptual diagram of Knowledge Production

4.10 Data Analysis

During this study both descriptive statistics and thematic analysis were used. According to Shamoo & Resnik (2003) data analysis is a process of methodically applying statistical or rational procedures to describe, demonstrate and assess data. The data analysis task is a challenging stage in the research process as it is time-consuming but rewarding at the same time.

4.10.1 Descriptive statistics

The study encompassed descriptive statistics, eg: percentages, frequencies, means, modes and symmetrical representation e.g.: histograms to enhance the results of the study.

Andrews, Gentzkow, & Shapiro (2018) explained that the above analysis does form the basis of quantitative research and it is used to emphasize the various features of the undertaken study. It can be deduced that descriptive statistics offer a synopsis of the research. Frequency refers to the number of observations that fall under a specific group. Frequencies were used to determine, what percentages of articles were published in that year in each journal and the number of times an author published relating to training and development. The mean was used to calculate the average of articles per year and in the entire dataset. Modes were used to construct a number-line with the set of articles over the 17 years, to assist in determining for example if an author published more than one article in that year. The data will be tabulated and discussed with the findings in the chapters that follow.

4.10.2 Thematic analysis

According to Braun & Clarke (2006) thematic analysis is a method for identifying and then evaluating the themes in the data set. A thorough thematic analysis can be helpful and produce results that are extremely trustworthy (Braun & Clarke, 2006). Nowell, Norris, White, & Moules (2017) Goes further and states that if thematic analysis is conducted in a thorough and systematic manner it will yield significant and valuable results. Once initial coding is complete, I will move from primary themes to secondary themes. Keywords will be undergoing thematic analysis; this

will be done by analysing all key words in the data set and searching for commonality. This will give rise to the second order themes, which will be reviewed and defined, followed by reports.

Thematic analysis was required as all information within the articles were examined because the goal was to identify themes being published within the articles in these two journals from 2003 to 2020. The steps of thematic analysis as per Braun & Clarke (2006) are as follows and this was adhered to with respect to the research that has been conducted.

```
┌─────────────────────┐
│    Familiarizing    │
│  yourself with data │
└─────────────────────┘
          │
          ▼
┌─────────────────────┐
│  Generating initial │
│        codes        │
└─────────────────────┘
          │
          ▼
┌─────────────────────┐
│    Searching for    │
│        themes       │
└─────────────────────┘
          │
          ▼
┌─────────────────────┐
│      Reviewing      │
│        themes       │
└─────────────────────┘
          │
          ▼
┌─────────────────────┐
│     Defining and    │
│    naming themes    │
└─────────────────────┘
          │
          ▼
┌─────────────────────┐
│    Producing the    │
│        report       │
└─────────────────────┘
```

Figure 4.10: Diagram representing the six steps in thematic analysis

(Braun & Clarke, 2006, p. 2)

According to (Braun & Clarke, 2006) there are six steps in thematic analysis. Each step was utilized in the research and will be discussed more in detail.

Step 1: Familiarizing yourself with data

The first step is actually reading and becoming absorbed in the data. The idea is to keep going through the information with the intention of picking up on any patterns and to understand the data. Sometimes this will require the researcher to re-read the information. According to Braun & Clarke (2006)stated that it is useful to actual make some rough notes and before you proceed to any other steps, you absolutely need to be familiar with the data set and information. And according to Braun & Clarke (2006) it is also vital that one does not decide to leave this step out, as researchers can be tempted to save time, as this step lays the groundwork for the entire process that follows.

Step 2: Generating initial codes

According to Maguire & Delahunts (2017) this phase dealt with, starting to organise the collected data in a way that it makes sense. Therefore this step is basically reducing large amounts of data into understandable categories.

It can be seen by, that one can manually undertake the coding (use highlighters and sticky notes on a board) or use software, example ATLAS or according to Bree & Gallagher (2016) one can also use Microsoft Excel to assist in generating the themes. As we worked through them we generated new codes and sometimes modified existing ones. The research supervisor and researcher did this by hand initially, working through hardcopies of the transcripts with pens and highlighters.

For this study, generating codes was done by identifying keywords for each article in the SAJHRM and SAJIP from (2003-2020). Once this was done, the researcher commenced with taking all the keywords that were similar and grouped them into a category to form codes. It has to be noted that it is wise to have another person look at the codes as well before proceeding and this was done with the supervisor of this study, going over the accuracy of the coding process.

Step 3: Searching for themes

According to Bree & Gallagher (2016) it can be noted that there are exact rules or system as to what really makes up a theme. One will have to base it on its merit. In most cases as in this research, the researcher will identify primary themes and then further reduce it to form secondary themes. Therefore one will be able to discard some themes when doing secondary theme development. Coding can be to some degree subjective and according to Maguire & Delahunts (2017) it is useful to still utilise graphical presentation when coding.

Step 4: Reviewing themes

According to Maguire & Delahunts (2017) one needs to look at the developed themes to make sure it makes sense and try to get all the data that applies to each theme. Bree & Gallagher (2016) suggests that one can simply cut and paste in Microsoft word and by colour coding each theme will make it easier to understand and see if the data corresponds to the theme. One needs to make certain that the themes apply to the data set. It can be noted according to Maguire & Delahunts (2017) that some themes can overlap.

According to Maguire & Delahunts (2017) themes will definitely need to be reviewed and refine a few times for it to be to applicable and meaningful. Therefore at this step, the researcher will have to determine if each codes matches the themes and if it is problematic, it will need to be changed or adjusted to accommodate the dataset.

So, to summarise in this research, after coding was complete, it became clear as to how each theme applies to the data set and gave a good representation of the SAJHRM and SAJIP journals respectively.

Step 5: Defining and naming themes

According to Maguire & Delahunts (2017) this is where the researcher does any final changes and refines the themes and if there are any sub-themes and how does it correlate to the main theme. It can be noted by Bree & Gallagher (2016) that themes should be clear-cut and specific and the researcher must be able to do a write up to explain how the themes actually relate to each other. One should also briefly describe each theme once this step has been completed. This process was done by looking at the key words within each article in the data set and then putting them into further categories to group the common words together to pick up on as many patterns

as possible. To name the themes the researcher looked at the patterns from inter-coding and decided to opt for easy name that was understandable and relatable to the study. This was done after looking at the data and clearly analyzing the findings.

Step 6: Producing the report

According to Maguire & Delahunts (2017) the last step entails the production of a report, which is a final write up. It can be noted that the write up can be for various purposes, example: an assignment but the main aim is to make sure it is done in a way that adds significance to the entire analysis process.

Since there were two journals being analysed (SAJHRM and SAJIP), the researcher ended up with two set of themes, which is explained in the chapters that follow. This can assist, one in making various comparisons between these journals.

4.11 <u>Ethical Consideration</u>

It is crucial for researchers to be ethically compliant and accommodating to the needs of individuals affected by a study, and participants involved in the study when conducting research. Conducting research can be of value to the lives of people, nevertheless it is vital to note that research need to comply with certain rules and regulations that doesn't impose on the human rights of individuals and society at large. Therefore safeguarding the rights people and all partcipants becomes an imperative task that needs to be undertaken first, before comencing with any study.

According to Conelly (2014) it is revealed that, in every study it is required by the researcher to report on ethical considerations regarding their undertaken research. This can be seen by Kaewkungwal & Adams (2019) that goes further and state that researchers that actually use human data must consider the values, morality and beliefs of ethical conduct when embarking on conducting a research study. It was determined by Conelly (2014) that most readers of research must first try and establish whether the study was permitted by a review board and if there was participant consent.

This can be seen by Conelly (2014) that state readers must also be conscious of other ethical considerations when reviewing a research article and further emphasize that informed consent is an essential element of the entire research process. Therefore it is important that all information relating to the actual conduct of the study must be shared with the participants. As revealed by Conelly (2014) that this frequently forms part of the instruction process, example: when conducting a survey the instructions must be read and explained to the participant. This will also help protect the organisation and the researcher and representing institution. This can be seen by Dantzker & Hunter (2012) that discloses that if ethical approval is acquired the likelihood of any claims of carelessness and negligence against the organisation or researcher is diminished substantially.

It is apparent that participants in the study should understand what is being asked of them and it is critical that the person involved must be competent and capable to consent, especially if special care is necessary for certain vulnerable groups and that all disclosures ought to be explained before actually conducting the research (Conelly, 2014).

It is important to note that in this undertaken study, there were zero ethical issues faced by the researcher and the researcher had no physical interaction with any vulnerable groups of people or put any group in harm's way. With respect to the undertaken study, all information and data gathered that had been revealed has been kept strictly confidential. The articles from the two journals (SAJHRM and SAJIP) that were utilized, were open sourced and available freely to the public, however the researcher was also granted ethical approval from the University of KwaZulu-Natal. *(Please see attached Appendix)*

4.12 <u>Reliability, Validity and Trustworthiness</u>

According to Middleton (2019) states that reliability and validity are two concepts that are utilized to assess appraise and evaluate the quality of research. In other words they indicate to us how well something is measured. Taking this into account Middleton (2019) has disclosed that

reliability is all about the uniformity and consistency of measuring something and that validity is all about the correctness, precision and accuracy of measuring something.

It is important to reflect on both reliability and validity, and according to Middleton (2019) it is vital when producing, your research design, your methods and during the writing up phase when conducting a research study.

Both reliability and validity are closely connected but they mean totally different things. This is explained by Middleton (2019) in that a measurement can be reliable; without being valid but if a measurement is valid it is more often than not reliable in the research study. When one considers this statement, it becomes apparent that reliability, will therefore deal with how consistent the chosen method will measure something.

This was done by using inter-coding and patterns were then picked. This lead the researcher to create themes under the guidance the supervisor of the research.

This can be seen by Middleton (2019) that shows us a method can be considered reliable if the chosen method produces the same result consistently under the same circumstances. And according to Middleton (2019) validity refers to the accuracy of a method, being able to measure what it was intended to measure. Therefore this simply means that reliability it is something that is precisely measured.

According to Middleton (2019) stated that if your research has an elevated degree of validity, it simply means that the results from the study will match up to real properties or the social world and that a high degree of reliability is a great gauge to deduce if the measurement is valid. This can be interpreted as if a method is not reliable then it is more often than not, not deemed valid as well. Therefore is becomes apparent that validity is more difficult of an approach but it is even more vital to obtain results that is helpful, practical and useful.

According to Middleton (2019), your research must measure what it ought to measure and that your method of collecting your dataset must also have a high degree of validity, this will in turn assist in data presentation, discussion and recommendations produced by your study. This will support in producing a better quality research.

According to Korstjens & Moser (2018) stated that trustworthiness, in simplified terms means if the research can be trusted? Korstjens & Moser (2018) Goes further and reveals that there are many known definitions of trustworthiness but the best-known criteria are credibility, transferability, dependability, and conformability as defined by Lincoln and Guba (1985). The researcher has adhered to these criteria until the research is complete. This was done by looking at 17 years of articles in two reputable journals in South Africa with having strict data collection boundaries, for example: by staying within the inclusion/ exclusion criteria as pointed out in the sampling frame in subsection 4.8.1.

The supervisor of the study played a vital role in overseeing the study to make sure that this process was meticulously followed to make sure that the sample frame was valid and reliable.

According to Korstjens & Moser (2018) credibility is the condition and standard for evaluating the truth value of the conducted research. The research of this study is based upon the findings from two credible South African Journals. The results will be presented with sufficient descriptions of context *(to follow)*, and considerable description of the interpretation process.

The study made use of inter-coder reliability. With respect to inter-coder reliability, a second person, the supervisor of the study reviewed the data and double checked the correctness of the coding and its procedures. A full audit trail was kept to assist in keeping track of the study and its results. Back-ups were made on a hard-drive and kept in a secure place.

4.13 Limitations of the Study

This study has focused on articles published during the seventeen-year period 2003 - 2020 in the South African Journal of Human Resource Management and South African Journal of Industrial Psychology. While there are adequate literatures to suggest that such a time frame is ample, a longer period would have afforded more information to uncover discernible trends. It is therefore suggested that future studies include a longer time period.

An additional limitation of this study is that it focused entirely on two journals. This implies that the findings cannot be generalised to other management-related publications in South Africa, or even to international publications. A potential path for future research would be to carry out

similar studies on other South African business journals in turn to expand and get a better understanding of the state of management research carried out in South Africa as a whole.

4.14 <u>Conclusion</u>

This chapter has provided an insight into research methodology and research methods. It can be clearly deduced that the mixed method approach was adopted and utilized in this study. The data was downloaded from these two journals in a logical sequence and the data was extrapolated from the data set and the use of thematic analysis and descriptive statistics, with inclusion-exclusion criteria being met. It can be determined that the excel spreadsheet played a pivotal role in making the data easier to capture and analysed, with a secondary person, the supervisor of the study constantly reviewing the data and double checked the correctness of the coding and its procedures. The research had no conflicts with respect to ethics and from the above chapter; the results of the study can be generalized.

CHAPTER FIVE

DATA ANALYSIS: DATA PRESENTATION

5.1. Introduction

This chapter will focus on both data analysis and the presentation of data. It builds on chapter four by revealing the collected data to answer the research question and it allows the reader to access tables and graphs to better understand the findings.

Data analysis gives birth to information that is extremely valuable. Because of its visual presentation, it does become easier to identify relationships and pick up on trends. This allows the researcher and reader to draw on conclusions and compare variables.

	MIXED	QUALITATIVE	QUANTITATIVE	TOTAL NO OF ARTICLES
SAHRM	13	17	20	50
	MIXED	QUALITATIVE	QUANTITATIVE	
SAJIP	2	16	20	38
TOTAL NO OF ARTICLES				88

Table 5.1 depicts the dataset from both the SAJHRM and the SAJIP, with a total of 88 articles dealing with training and development. SAJHRM which is n=50 and SAJIP which is n=38. The table also reveals the research approaches within the data set, which is more appropriately displayed in the diagrams that follow.

5.2 Data Presentation
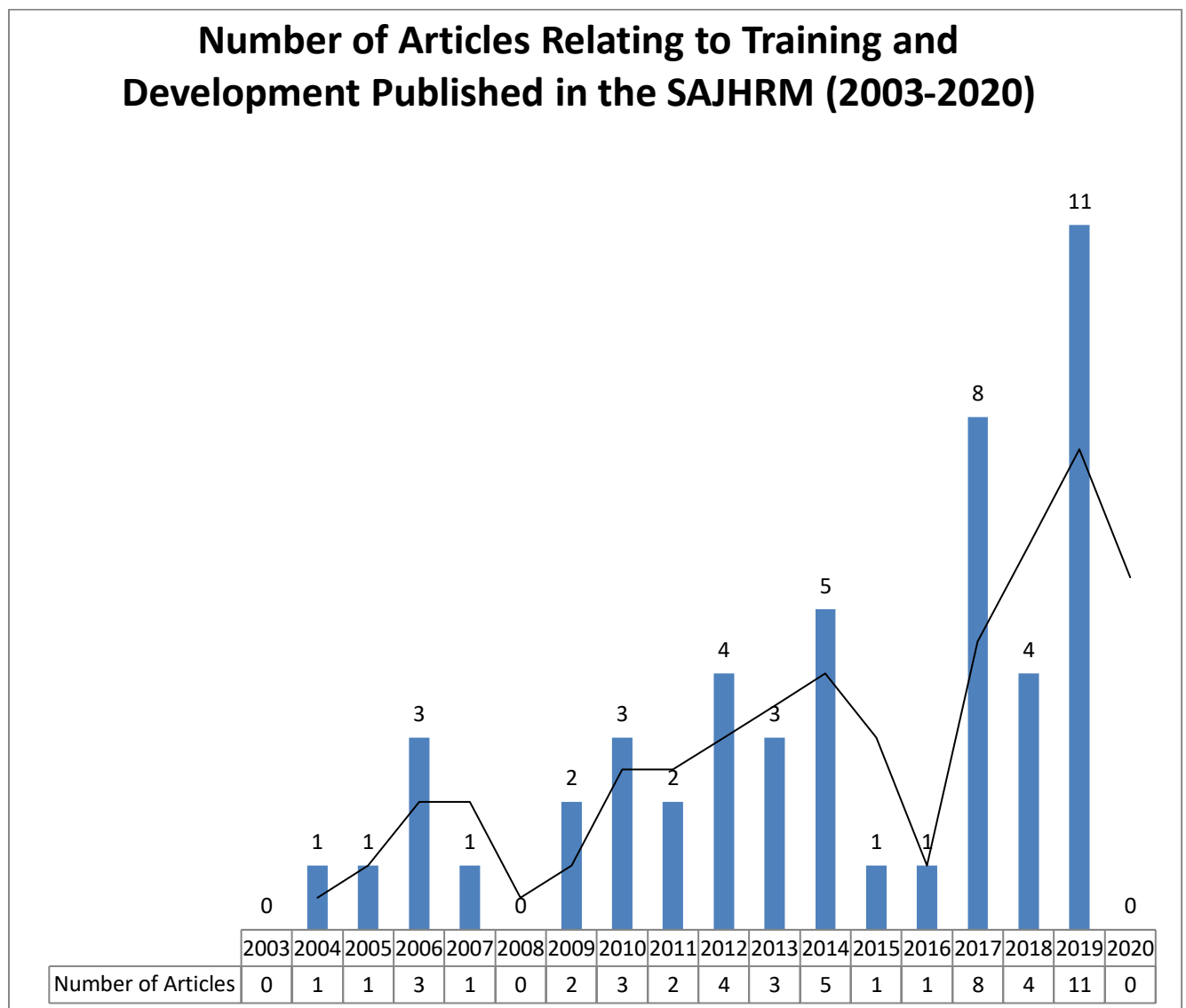
Number of Articles Relating to Training and Development Published in the SAJHRM (2003-2020)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Number of Articles	0	1	1	3	1	0	2	3	2	4	3	5	1	1	8	4	11	0

Figure 5.11, above depicts the number of articles published in the SAJHRM (2003-2020), most training articles were published in 2019, n=11, followed by 2017 with n=8 and 2014 n=5.

Number of Articles Relating to Training and Development Published in the SAJIP (2003-2020)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Series1	1	1	2	5	0	1	4	6	2	2	1	1	1	3	3	0	2	3
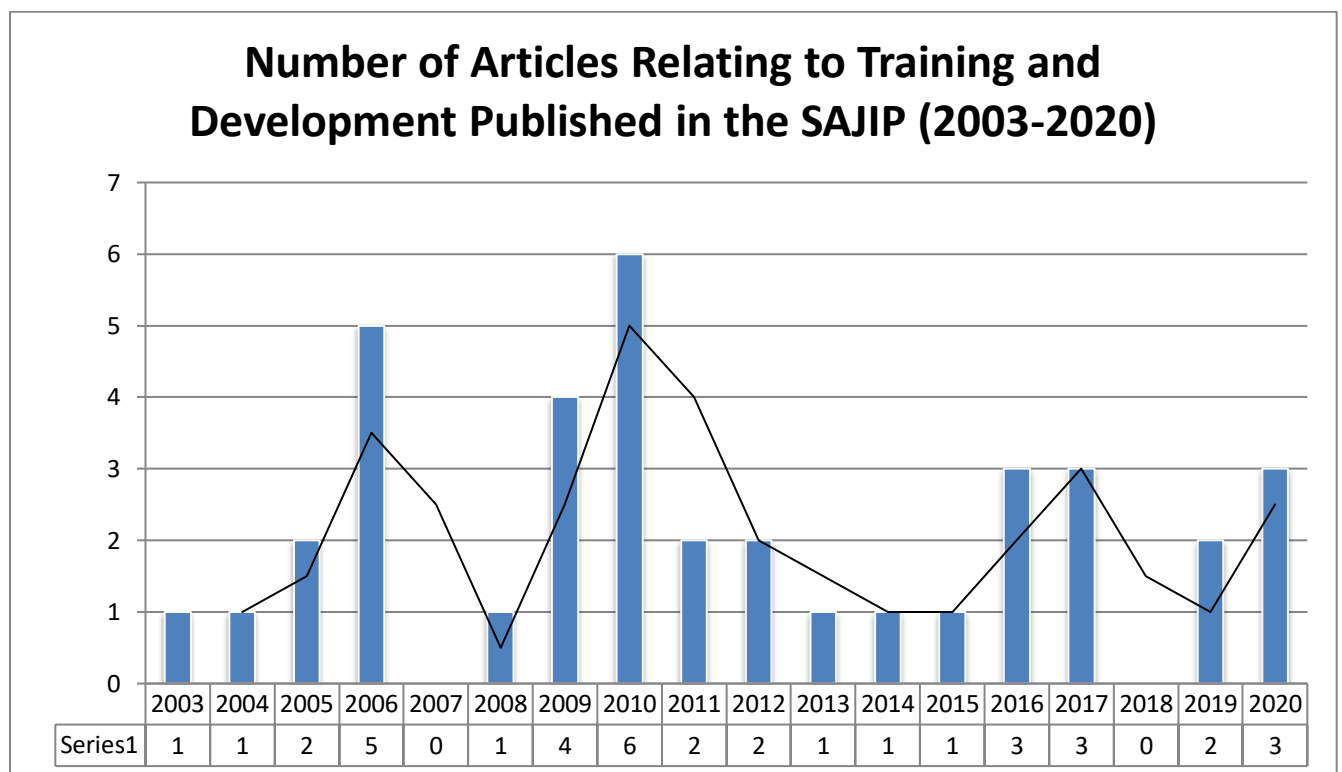
Figure 5.2: Number of Articles Relating to Training and Development Published in the SAJIP (2003-2020)

Figure 5.12, above depicts the number of articles published in the SAJIP (2003-2020), most training articles were published in 2010, n=6, followed by 2006 with n=5 and 2009 n=4.

RESEARCH APPROACHES - SAJHRM

MIXED
26%

QUANTITATIVE
40%

QUALITATIVE
34%
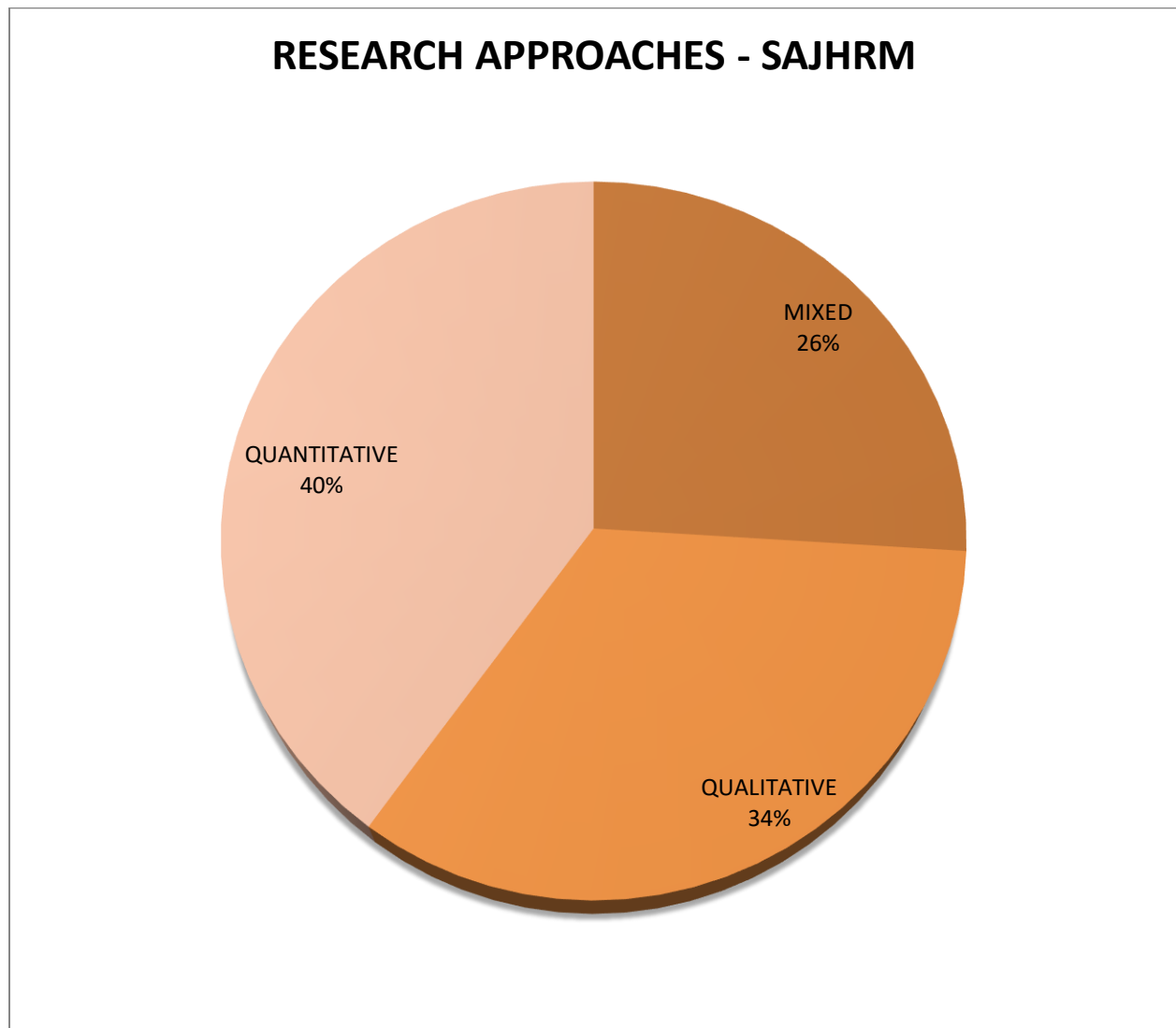
Figure 5.3: Research Approaches used in the SAJHRM (n=50)

Figure 5.1 shows the research approaches that has been utilised to publish articles within the SAJHRM in 2003-2020. The quantitative research approach was the most popular as it was used

in 20 (f %= 40) of articles. Qualitative research was used in 17 (f %=34) articles and 13(f %=26) articles used a mixed method approach.

RESEARCH APPROACHES - SAJIP

MIXED
5%

QUALITATIVE
42%
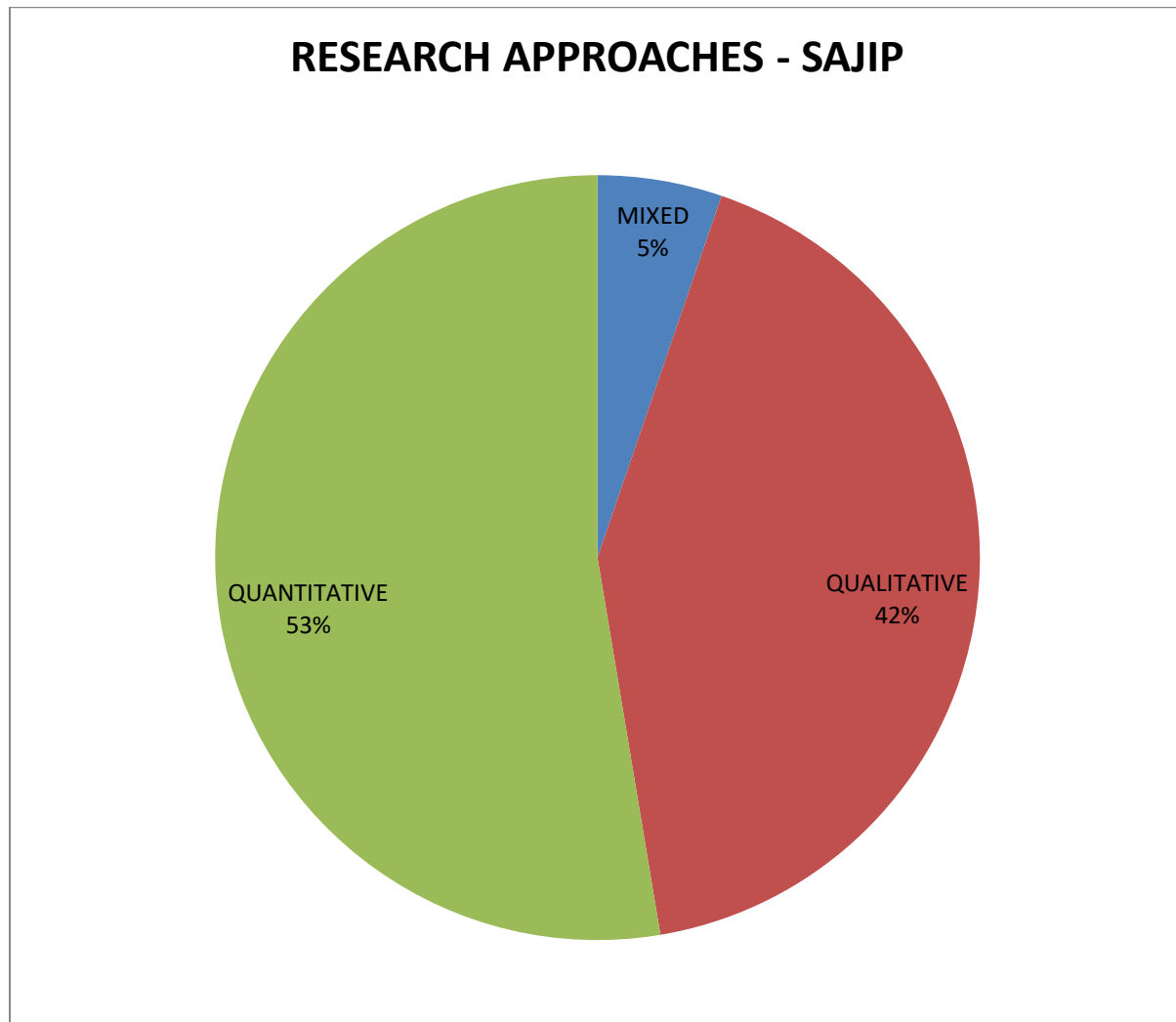
QUANTITATIVE
53%

Figure 5.4: Research Approaches used in the SAJIP (n=38)

Figure 5.2 shows the research approaches that has been utilised to publish articles within the SAJIP in 2003-2020. The quantitative research approach was the most popular as it was used in

20 (*f* %= 53) of articles. Qualitative research was used in 16 (*f* %=42) articles and 13(*f* %=5) articles used a mixed method approach.

SAJHRM		
Institutional Affiliation	*Associated Authors (f)*	*Percentage (%)*
University of South Africa	24	20.51282
University of Johannesburg	22	18.80342
North-West University	19	16.23932
University of Cape Town	12	10.25641
Cape Peninsula University of Technology	5	4.273504
Tshwane University of Technology	5	4.273504
University of Stellenbosch	5	4.273504
Nelson Mandela Metropolitan University	4	3.418803
Central University of Technology	3	2.564103
Rhodes University	3	2.564103
University of Pretoria	3	2.564103
University of the Free State	3	2.564103
Rand Afrikaans University	2	1.709402
University of KwaZulu-Natal	2	1.709402
Durban University of Technology	1	0.854701
Gauteng Government	1	0.854701
Massey University, Auckland	1	0.854701
Private Practice	1	0.854701
University of Venda	1	0.854701
Total	**117**	**100**

Table 5.2: institutions in terms of author affiliation in the SAJHRM (n=117)

Table 5.2 shows the institutions in terms of author affiliation that has been utilised to publish articles within the SAJHRM in 2003-2020. University of South Africa had the most number of publish articles with 20.5%, followed by University of Johannesburg at 18.8%, North West University at 16% and finally University of Cape Town at 10%. The rest of the universities scored below 10% with respect to their publishing.

SAJIP		
Institutional Affiliation	*Associated Authors (f)*	*Percentage (%)*
University of South Africa	21	24.4186
North-West University	15	17.44186
University of Stellenbosch	14	16.27928
University of Johannesburg	13	15.11628
University of Pretoria	4	4.651163
Council for Scientific and Industrial Research	3	3.488372
Rand Afrikaans University	3	3.488372
University of Fort Hare	3	3.488372
University of the Western Cape	3	3.488372
University of KwaZulu Natal	2	2.325581
Vaal University of Technology	2	2.325581
De Beers Consolidated Mines	1	1.162791
Human Sciences Research Council	1	1.162791

South African Police Services, Pretoria	1	1.162791
Total	**86**	**100**

Table 5.3: institutions in terms of author affiliation in the SAJIP (n=86)

Table 5.3 shows the institutions in terms of author affiliation that has been utilised to publish articles within the SAJIP in 2003-2020. University of South Africa had the most number of publish articles with 24%, followed by North West University at 17%, and University of Stellenbosch at 16.27% and the University of Johannesburg at 13%. The rest of the universities scored below 10% with respect to their publishing.
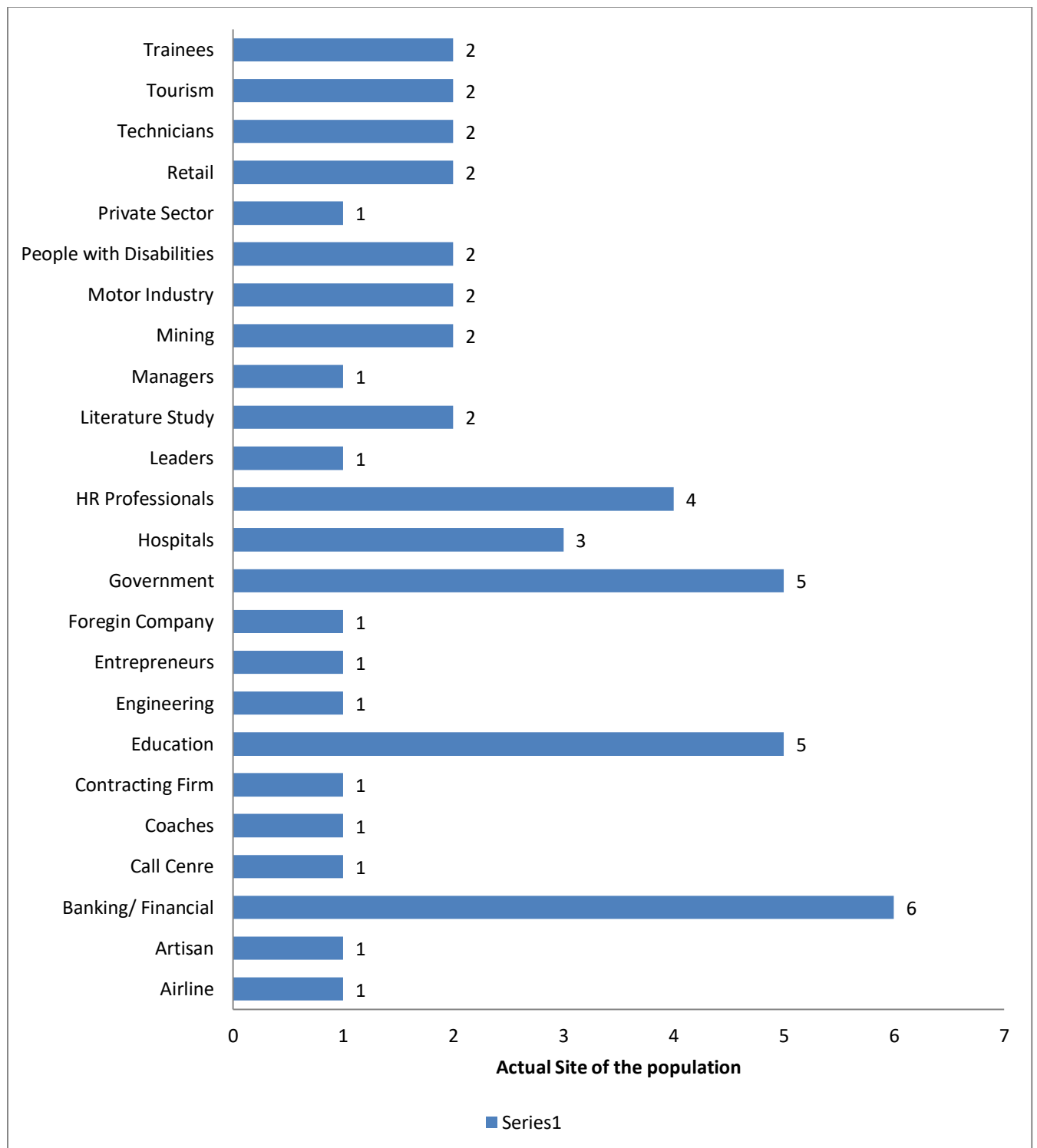
Figure 5.5: Actual Site of the population in the SAJHRM

Figure 5.3 shows the actual site of the population in the SAJHRM (2003-2020). The sectors that were mostly researched are the educational sector, government, financial and human resource professionals.

Figure 5.6: Actual Site of the population in the SAJIP
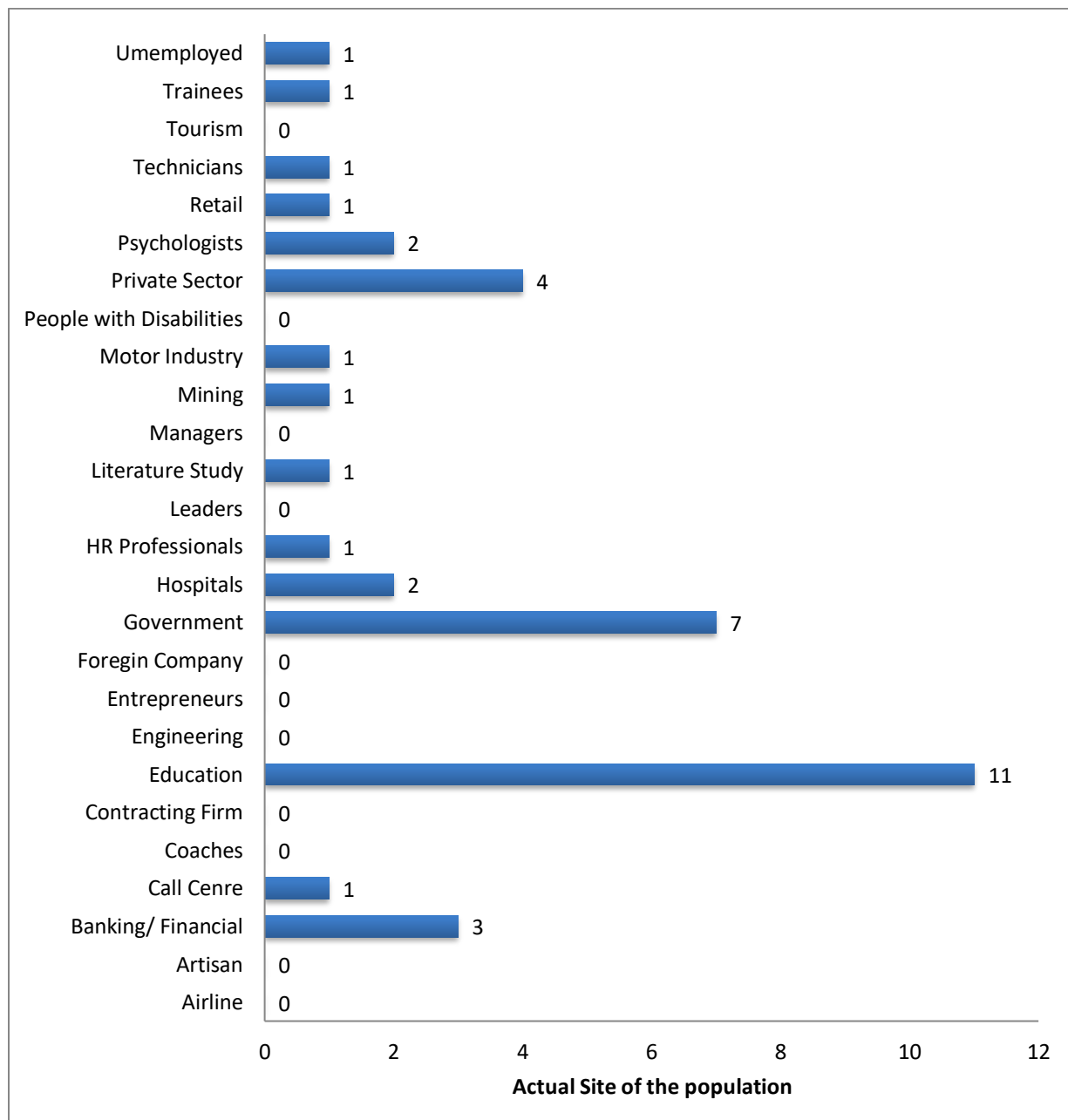
Figure 5.4 shows the actual site of the population in the SAJIP (2003-2020). The sectors that were mostly researched are the educational sector, government, private sector, financial (Banking).
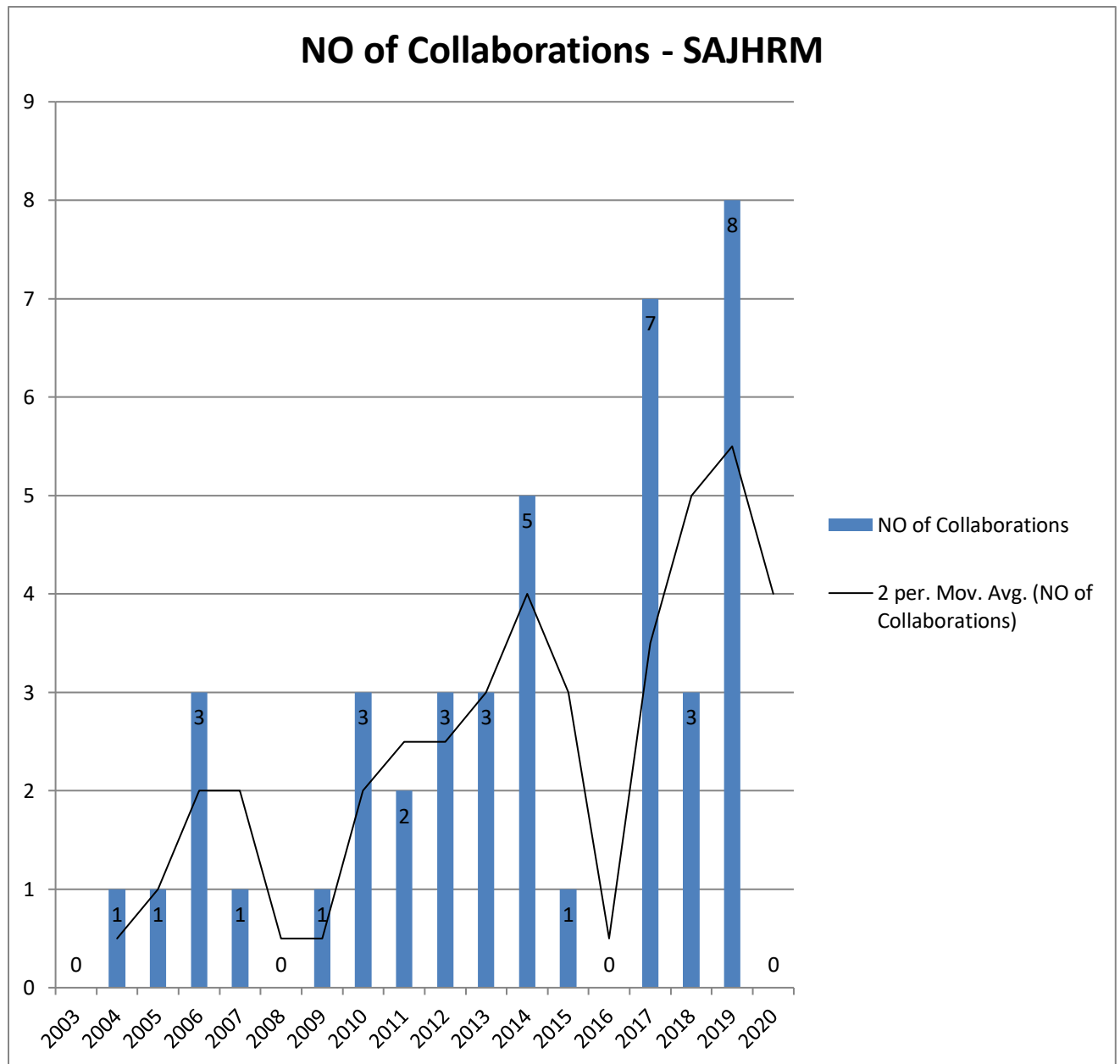
NO of Collaborations - SAJHRM

Figure 5.5 shows number of collaborations in the SAJHRM (2003-2020) n=42. The figure above reveals that 2019 n=8, 2017 n=7 and 2014 n=5, produced the highest number of collaborations.
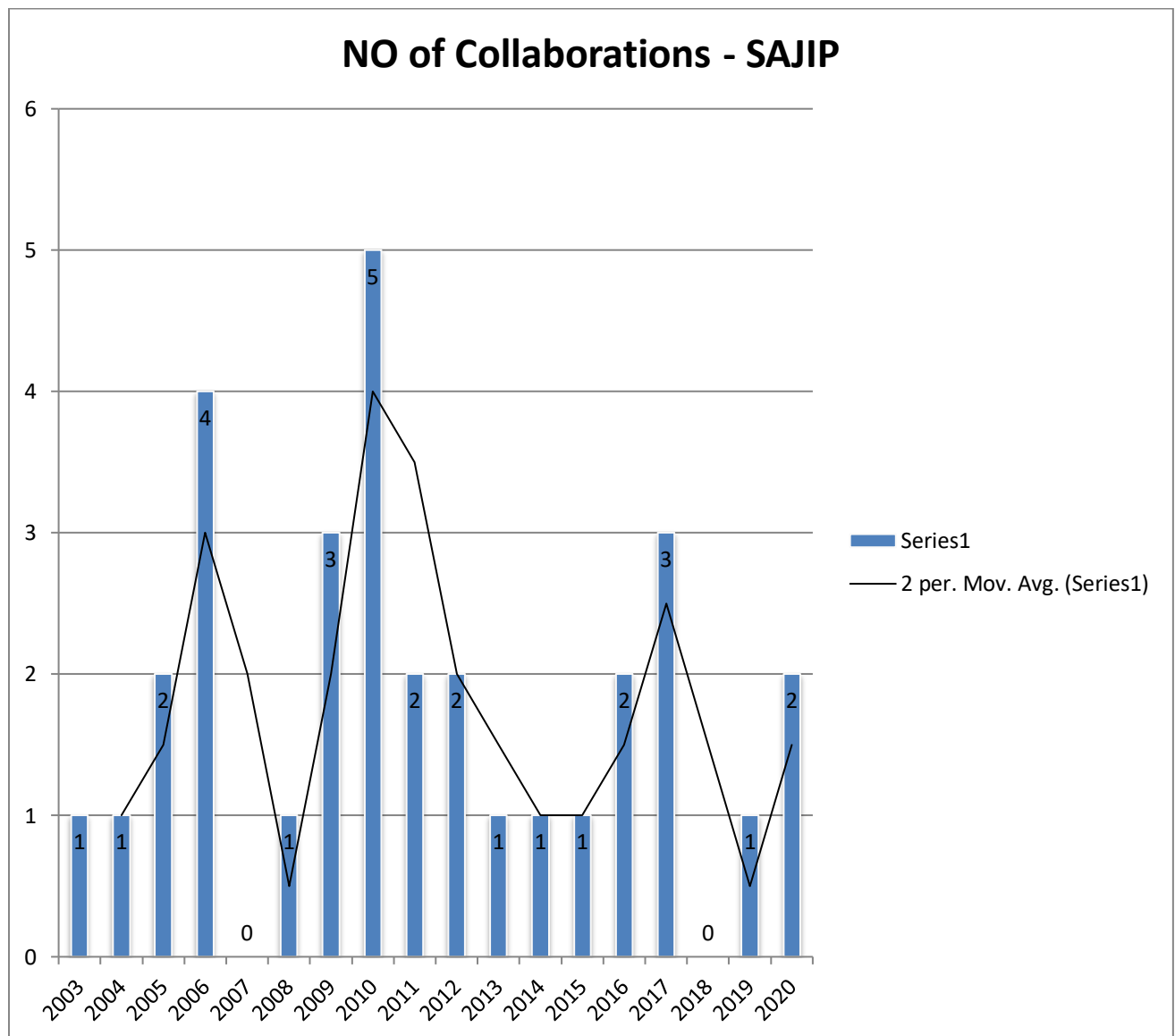
Figure 5.6 shows number of collaborations in the SAJIP (2003-2020) n=32. The figure above reveals that 2010 n=5, 2006 n=4 and 2009 and 2017 n=3, produced the highest number of collaborations.

	Anne Crafford (A)	Claude-Hélène Mayer (A)	Elmarie Slabbert(A)	Ingrid L. Potgieter (A)	Joha Louw-Potgieter(A)	Mark Bussin (A)	Melinde Coetzee (A)	Robert Rugimbana (A)
Series1	2	2	2	2	2	2	4	2
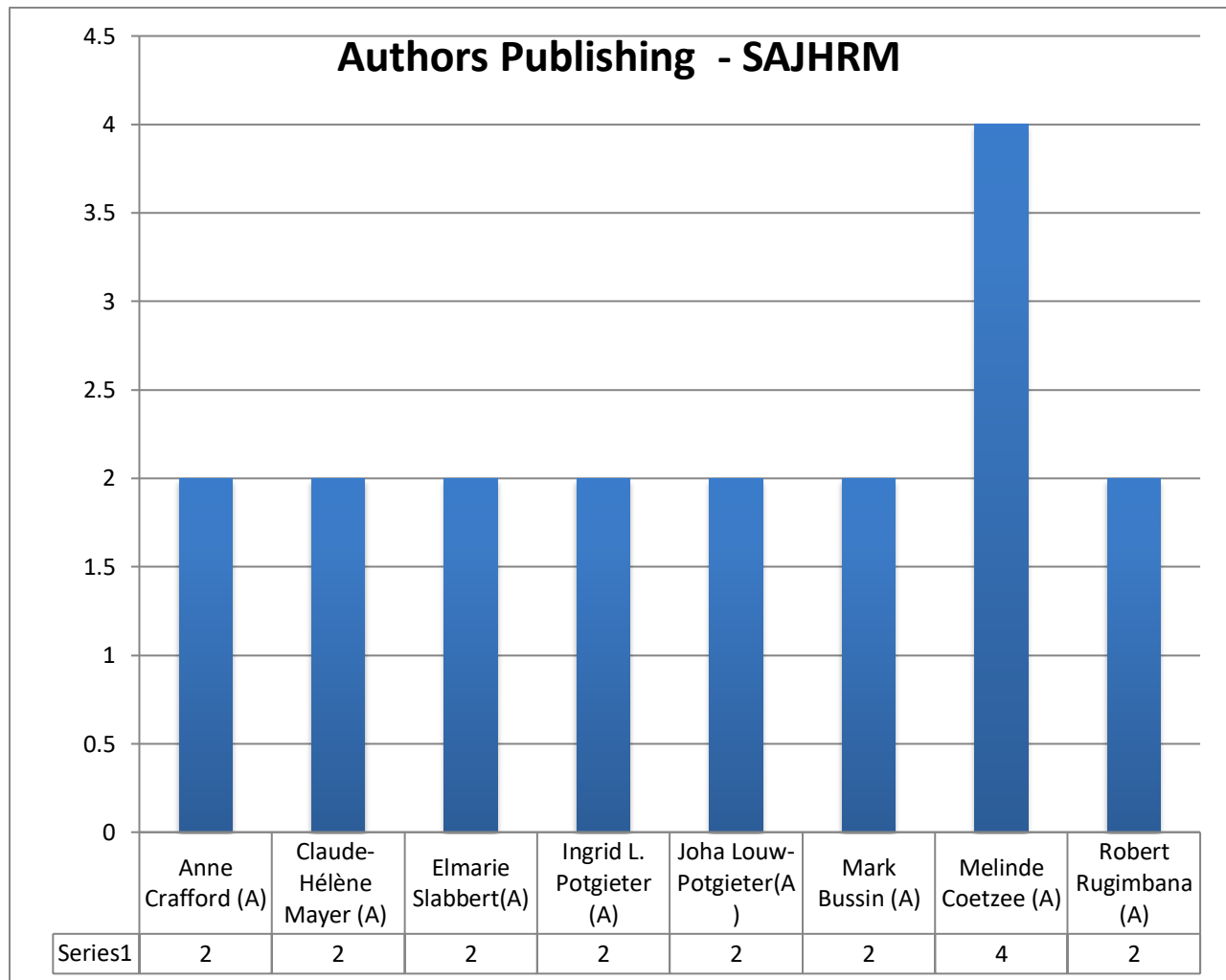
Figure 5.9: Authors publishing in the SAJHRM (relating to training and development)

Figure 5.7 shows the number of authors publishing in the SAJHRM (relating to training and development) from (2003-2020). It becomes clear that Melinde Coetzee (n=4) produced the most

number of articles during this time frame relating to training and development. It can also be noted that most of the articles being published are done so by academics (A).
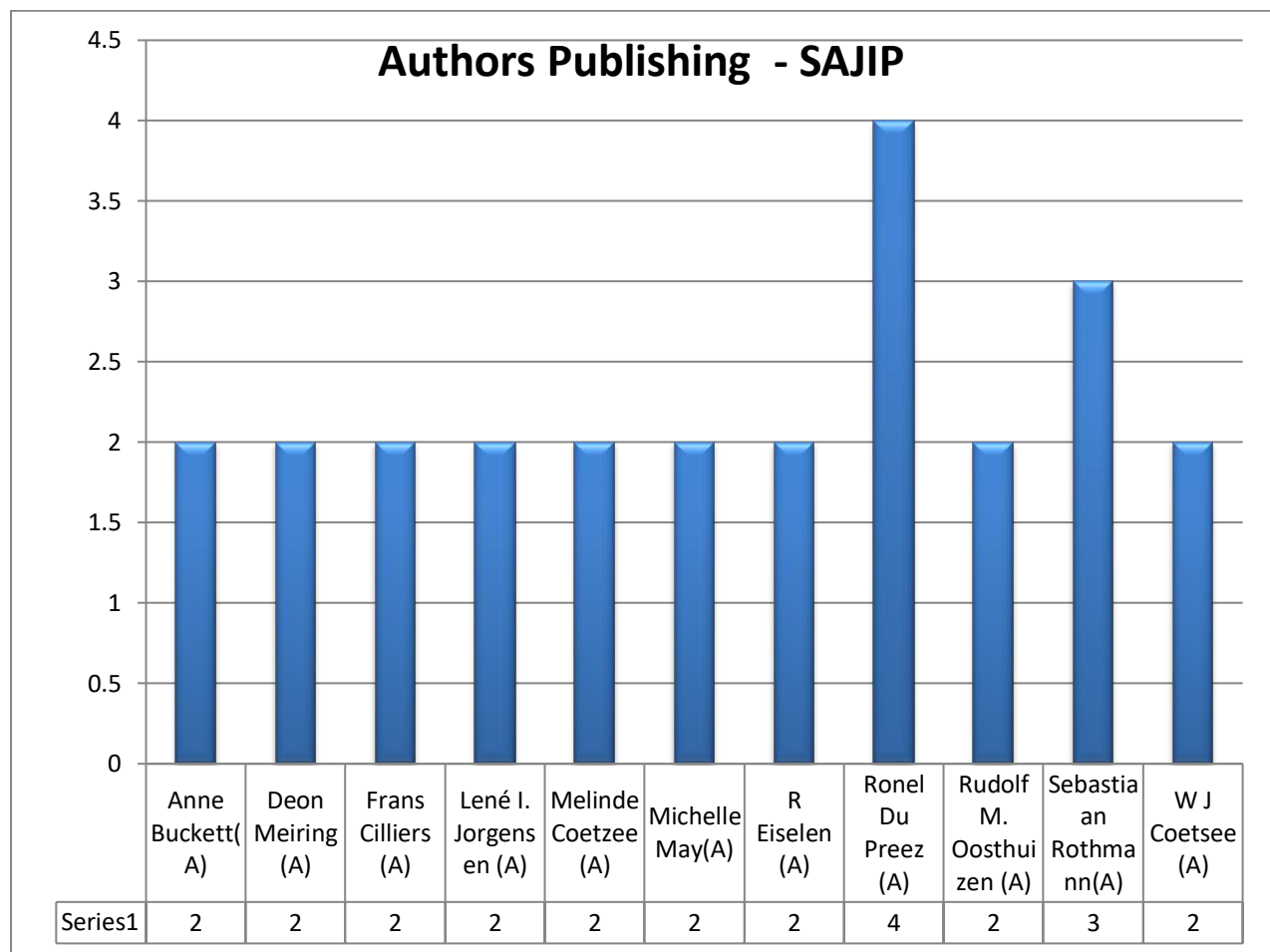
Figure 5.10: Authors publishing in the SAJIP (relating to training and development)

Figure 5.8 shows the number of authors publishing in the SAJIP (relating to training and development) from (2003-2020). It becomes clear that Ronel Du Preez (n-4) produced the most number of articles during this time frame relating to training and development, closely followed

by Sebastian Rothmann with n=3, however it is important to note that Melinde Coetzee (n=2) has also published in this journal as well making her the leading author with respect to articles published from 2003-2020 in both journals relating to training and development. . It can also be noted that most of the articles being published are done so by academics (A).
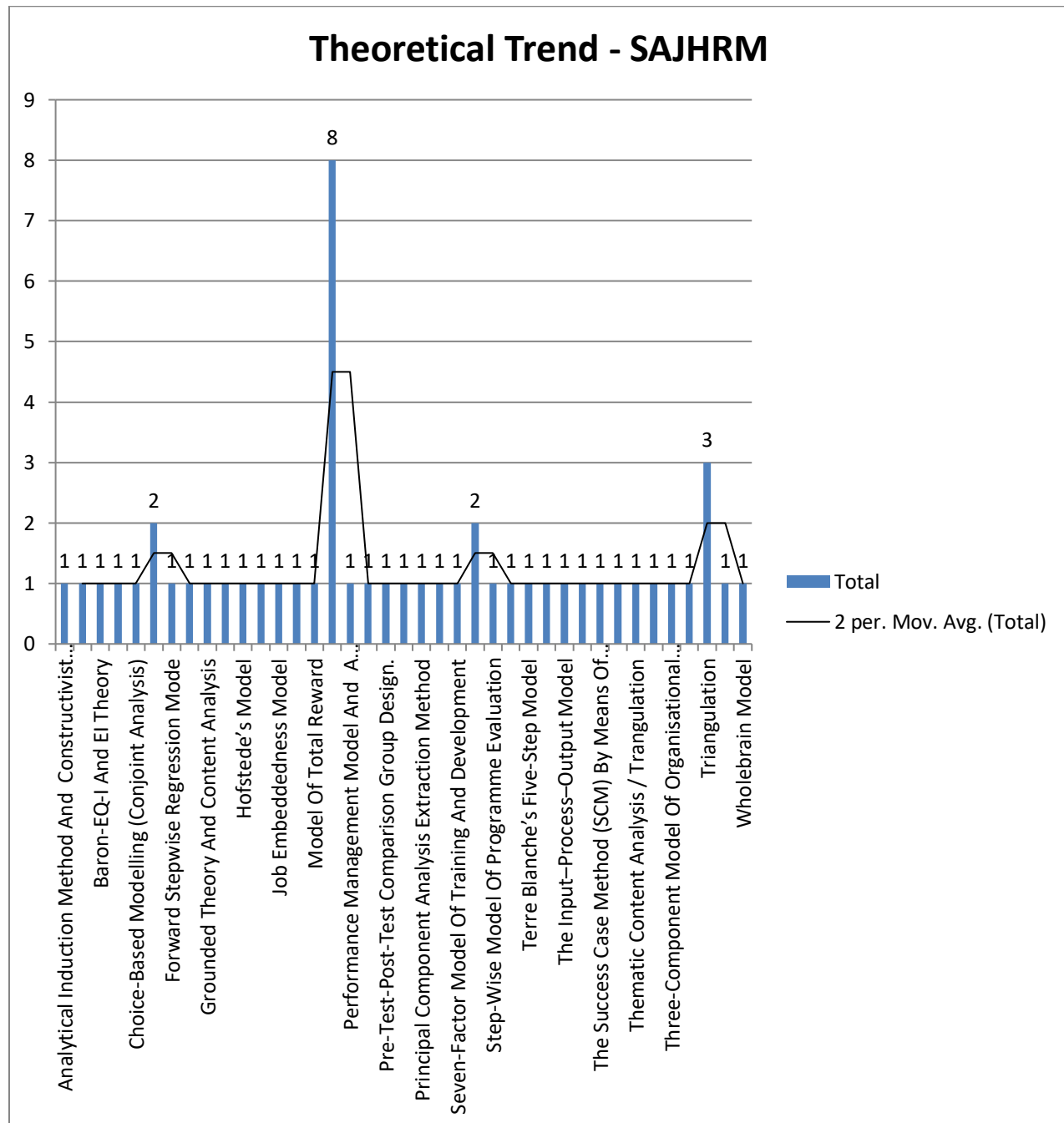
Theoretical Trend - SAJHRM

Figure 5.9 shows Theories or Models used in the SAJHRM (2003-2020). The figure above reveals that Model of total rewards n = 8 was used the most, followed by triangulation n=3, and seven factor model of training and development and choice based modelling n =2 respectively.
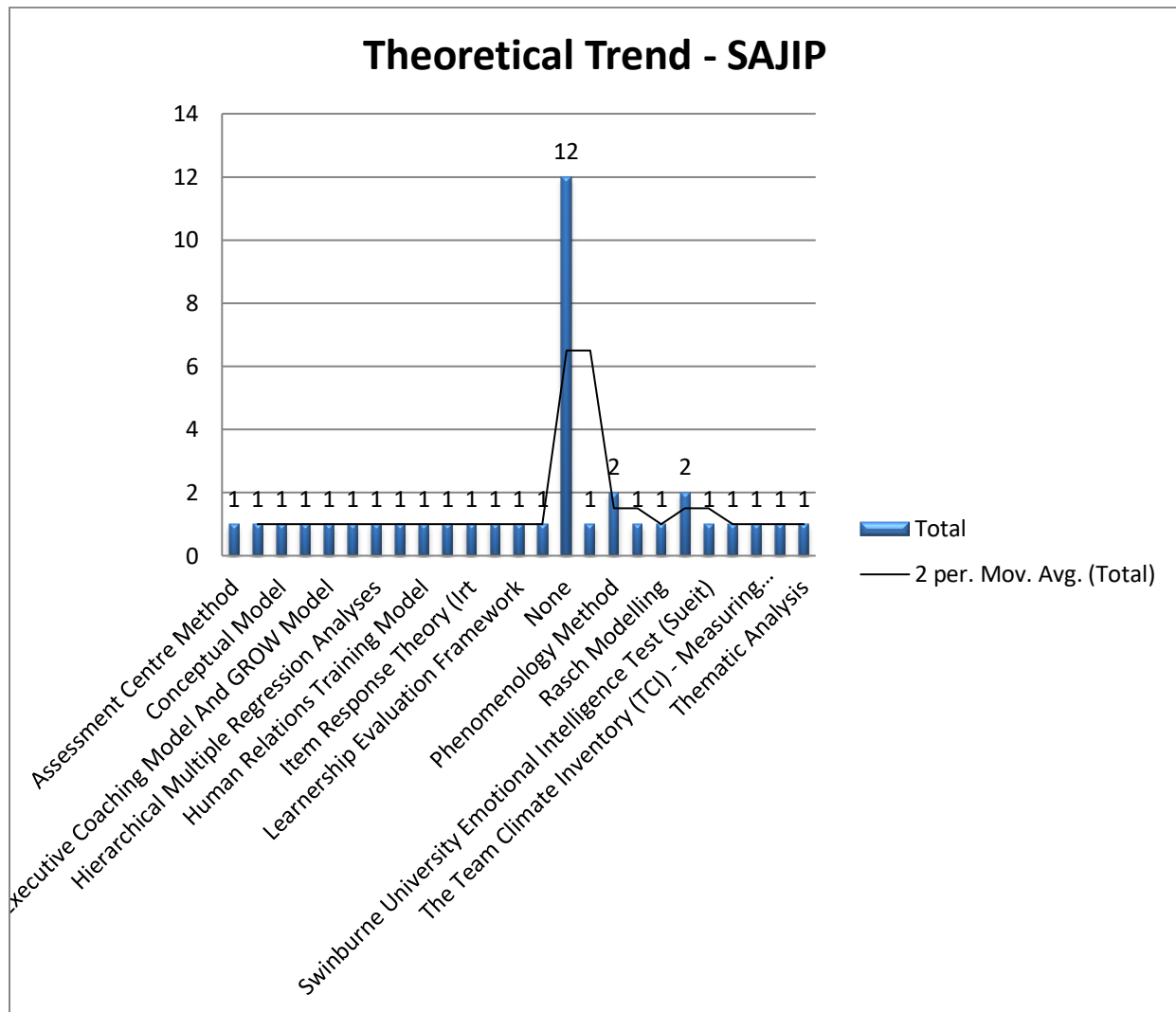
Figure 5.12: Theories or Models used in the SAJIP

Figure 5.10 shows Theories or Models used in the SAJIP (2003-2020). The figure above reveals that phenomenology method and regression model both at n = 2 were used the most, followed by models that were unknown n=12, the rest of the models or theories that followed varied per article in this journal.

COMMON THEMES IN THE SAJHRM (2003-2020)	
Theme 1	Career Advancement
Theme 2	Communication
Theme 3	Employee Retention
Theme 4	Lack Of Training
Theme 5	Leadership
Theme 6	Management Support and poor management
Theme 7	Motivation
Theme 8	Performance
Theme 9	Rewards
Theme 10	Skills Development and skills shortage
Theme 11	Teamwork
Theme 12	Training Programme
Theme 13	Work Environment
Theme 14	Work-Life Balance
Theme 15	Diversity Training

Table 5.4: Common themes evident in the SAJHRM from 2003-2020

There are a total of, n =15 of common themes that became apparent in this journal.

COMMON THEMES IN THE SAJIP (2003-2020)	
Theme 1	Basic Computer Skills
Theme 2	Diversity Training
Theme 3	Ethical Training
Theme 4	Innovation And Technology
Theme 5	Job Performance
Theme 6	Learning
Theme 7	On The Job Training
Theme 8	Policy Training
Theme 9	Practical Training
Theme 10	Simulation
Theme 11	Skills Shortage
Theme 12	Support From Management
Theme 13	Workplace Counselling

Table 5.5: Common themes evident in the SAJIP from 2003-2020

There are a total of, n =13 of common themes that became apparent in this journal.

RECOMMENDATION FOR MANAGERS IN THE SAJHRM (2003-2020)	
Recommendation 1	More Skilled Leadership and Management
Recommendation 2	Better Rewards System
Recommendation 3	Better Work Environment
Recommendation 4	Build In Skills Into Training Programmes
Recommendation 5	Employment Equity and Diversity Programmes.
Recommendation 6	More Simulations – Real On The Job Training

Table 5.6: Common recommendations evident in the SAJHRM from 2003-2020

RECOMMENDATION FOR MANAGERS IN THE SAJIP (2003-2020)	
Recommendation 1	More Skilled Management Is Required.
Recommendation 2	More Technology Training
Recommendation 3	Diversity Training And Encouragement For More Females To Be trained.
Recommendation 4	More Practical Training In A Simulated Environment.

Table 5.7: Common recommendations evident in the SAJIP from 2003-2020

Table 5.6 and 5.7 reveals the common recommendations that are evident in both journals. These consolidated findings will be discussed in detail in the following chapter as to the trends in training and development environment in South Africa.

GENERAL OVERVIEW	SAJHRM	SAJIP
Most Utilsed Research Approaches	Quantitative	Quantitative
Most University Affiliation	University of South Africa	University of South Africa
Most Actual Site/ Sector of Population	Banking and Education	Education
Highest Number of Collaborations	8 in 2019	5 in 2010
Author publishing the most	Melinde Coetzee (4 Articles)	Ronel Du Preez (4 Articles)
Most Utilsed Theories/ Models used	Model of total rewards	Phenomenology & Varied.
Highest number of T&D articles in a year	2019 (11 Articles)	2010 (6 Articles)
Month with highest number of articles published	November	October
Number of common themes	15	13
Number of common recommendations	6	4

Table 5.8: General Summary (Overview) Table of the SAJHRM and SAJIP from 2003-2020

5.3. Conclusion

In this chapter, data was analysed and presented with the use of various graphs, tables and figures and was structured in a manner that will assist in answering the research questions proposed.

The last table gave a general overview of the findings in the SAJHRM and SAJIP. This chapter dealt with the research approaches that was utilised. Thereafter it looked at which universities were publishing the most and the actual site and / or industry of the population.

It was also found that Melinde Coetzee published in both journals and has the highest number of total articles relating to training and development, published overall. The research also looked at the number of collaborations and the theories or models that were frequently used. Analysis regarding the highest number of articles published that dealt with training and development which was 11 articles in 2019 (SAJHRM) and 6 articles in 2010 (SAJIP). Common themes, recommendations and the months in which the most articles were published were also revealed.

There are similarities across these journals as there is a direct link because topics within these fields do tend to overlap as they form part of the social sciences. The results will be discussed further in the following chapter.

CHAPTER 6

DISCUSSION

6.1. Introduction

This chapter will provide a discussion of the data in chapter 5. The discussion will be based on the following regarding the South African Journal of Human Resource Management and South African Journal of Industrial Psychology. Most utilsed research approaches, Most university affiliation, Most actual site/ sector of population, Highest number of collaborations, Author publishing the most, Most utilsed theories/ models used, Highest number of training and development articles in a year, Month with highest number of articles published, Number of common themes, Number of common recommendations.

It can be noted that according to Schreuder & Coetzee (2012) that reveals that there are very few studies that tend to explore the applicable research trends in the South African Journal of Industrial Psychology and the South African Journal of Human Resource Management. And that this is the first study as to the authors acknowledge to look at training and development trends across these two journals.

6.2. Research Approaches

Table 5.1 depicts the dataset from both the SAJHRM and the SAJIP, with a total of 88 articles dealing with training and development. SAJHRM which is n=50 and SAJIP which is n=38. In Figure 5.1 shows the research approaches that has been utilised to publish articles within the SAJHRM from 2003-2020. The quantitative research approach was the most popular as it was used in 20 (f %= 40) of articles. Qualitative research was used in 17 (f %=34) articles and 13(f %=26) articles used a mixed method approach.

Figure 5.2 shows the research approaches that has been utilised to publish articles within the SAJIP in 2003-2020. The quantitative research approach was the most popular as it was used in 20 (f %= 53) of articles. Qualitative research was used in 16 (f %=42) articles and 13(f %=5) articles used a mixed method approach. It can be deduced that both journals followed the same pattern, that is quantitative approach was the most utilised approach followed by qualitative and then mixed method approach.

According to a study conducted by ONeil & Koekemoer (2016) between 1995 and 2015 that took the SAJIP and SAJHRM into account revealed that there is a poor account of studies that are qualitative in nature.

This is further backed up by a study undertaken by Coetzee & Van Zyl (2014) that states that most articles that were published in the SAJIP from 2004 until 2013 were quantitative in nature. A similar study conducted by Pietersen (2018) in the SAJHRM revealed the same about articles being published in that journal.

It has to be noted that most articles in the South African Journal of Industrial Psychology has been content analysis and there is not much representation with respect to biblometric studies (Coetzee, 2019).

According to (Chilliers, 2019) in a study looking in the South African Journal of Industrial Psychology it was revealed that there is a clear increase in the publishing of quantitative studies in this journal and it has kept growing proving that there is an upward trend, which does correlate with the findings of the undertaken study. It has to noted that there has also been vast improvements with respect to the mixed research approach as well and the journal does encourage and welcomes the use of diverse research designs and various methodologies (Chilliers, 2019). It can be noted that this journal is one the main role players with respect to producing qualitative research in the field of human psyche in Africa and he idea is for this trend to grow alongside other research approaches (Chilliers, 2019).

Taking a look at a qualitative study in the South African Journal of Human Resource Management, revealed that most of the publications were also quantitative in nature and as is with the South African Journal of Industrial Psychology, the main aspect is that a more diverse

and all round approach in research are welcomed and greatly encouraged (Pietersen, 2018).Both these are in line with the findings of this undertaken research.

And according to (ONeil & Koekemoer, 2016) there has been an increase in qualitative research in the South African Journal of Industrial Psychology but when compared to other journals example: the South African Journal of Human Resource Management it is still extremely little. And there is massive dominance with respect to quantitative research in the SAJIP (Coetzee & Van Zyl, A review of a decade's scholarly publications (2004-2013), 2014).

But in another study it also revealed that there has also been a diminishing trend with respect to qualitative research in the South African Journal of Human Resources as well but that doesn't mean that it will completely die of as it is alive and requires attention and work to ultimately sustain this approach in human resources and in these two South African journals (Schurink, 2003). But one need to consider the extreme pressure researchers and academics are under to constantly publish quality articles and this has played a significant role in most academics shifting from a qualitative to a more quantitative approach (Panda, 2014).

Furthermore one need to take into account that there is a lot more time required to conduct good qualitative research and that means delays in publishing that does affect publications rates and can have adverse effects when it comes to attaining funding from national government (Twisk, 2013).

According to (Moyo, 2012) another important reason for this shift is that it comes down to the age old debate if the social science and management science should be even considered a true science, because they might be deficient in in producing factual information, in light of this academics turn to the use, of quantitative approaches to assist in reduce criticisms from other faculties and actually follow through in quantify their data and producing value insight in the social and management science fields.

To produce better quality one has to keep going back to the pressure put on academics and this requires that this be dealt with at a national level across all Universities and to offer these academics and researchers more support and flexibility to alleviate some of the pressure (Hoole, Avoiding the elephant in the room; The real reason behind our research crisis, 2019).

According to (Bonache & Festing, 2020) internationally there seems to be, a more combing role of qualitative and quantitative studies in the entire field of human resources.

6.3. Author Affiliations

We will have to refer to Table 5.2 which clearly shows the institutions in terms of author affiliation that has been utilised to publish articles within the SAJHRM from 2003-2020. The University of South Africa had the most number of publish articles with f=20.5%, followed by University of Johannesburg at f=18.8%, North West University at f=16% and finally University of Cape Town at f=10%. The rest of the universities scored below f=10% with respect to their publishing. It can be noted that there has been an international author with 1 article as well f=0.854701 Massey University, Auckland.

Looking at the SAJIP shows the institutions in terms of author affiliation that has been utilised to publish articles within the SAJIP in 2003-2020. University of South Africa had the most number of publish articles with f=24%, followed by North West University at f=17%, and University of Stellenbosch at f=16.27% and the University of Johannesburg at f=13%. The rest of the universities scored below f=10% with respect to their publishing.

This clearly reveals that in both journals The University of South Africa has produced the most training and development articles during the time period. The University of Johannesburg has also appeared in the top 4 publishing universities across the both journals.

According to Coetzee & Van Zyl (2014) it was pointed out that the most amount of artilces published in the decade from 2004 to 2013 that the University of South Africa actuall produced the most articles and this seems to be acturate with the research findings.

Unisa has always been a high publishing institution and consistanly remains in the top six universities with respect to the total output of publications, and one of the reasons might be that they are the largest and the oldest university in South Africa and one of the largest pure distance education instituitions in the world. It was created in 1873 and it underwent a name chage to what is known as UNISA in the early 1900's.

Being the largest also means they do have a lot more funds and a lot more to allocate towards research and try to stay as the top six producing universities in South Africa.

As seen in the figure 6.1 below that are in line with the finding of the study that the top publishing universities have published the most in South Africa and do remain consistent in this regard. Those universities are University of South Africa (UNISA) and the University of Johannesburg (UJ).

One other reason for the University of Johannesburg to be consistent in this field is that the South African Journal of Human Resource Management was actually founded at this site which was formerly known as Rands Afrikaans University (Ruggunan & Sooryamoorthy, 2016).

Institution	Book Units		Conference Proceedings Units		Journal Units		Overall units in 2016	% Overall Sector Units
	Actual Units	% of total institutional units	Actual Units	% of total institutional units	Actual Units	% of total institutional units		
UP	195.24	8.60%	138.58	10.45%	1707.06	11.68%	2040.88	11.21%
UKZN	275.47	12.14%	61.03	4.60%	1668.17	11.42%	2004.67	11.01%
UCT	223.56	9.85%	103.94	7.84%	1516.37	10.38%	1843.87	10.13%
WITS	241.68	10.65%	78.98	5.96%	1500.73	10.27%	1821.39	10.00%
SUN	284.93	12.56%	115.20	8.69%	1373.00	9.40%	1773.13	9.74%
UJ	228.20	10.06%	301.65	22.75%	1029.69	7.05%	1559.54	8.57%
UNISA	238.71	10.52%	84.65	6.38%	1050.77	7.19%	1374.13	7.55%
NWU	118.99	5.24%	89.09	6.72%	1148.39	7.86%	1356.47	7.45%
UFS	178.22	7.85%	27.30	2.06%	721.77	4.94%	927.29	5.09%
UWC	94.33	4.16%	10.41	0.78%	447.34	3.06%	552.08	3.03%

Figure 6.1 Top publishing Universities in South Africa 2016

Source: (DHET, 2018, p. 35)

The figure 6.2 below reveals the qualifications at the top performing universities in South Africa and in 2016 showed that UNISA had the highest amount of personnel that had a postgraduate Masters or PhD qualifications. This does affect the publication output since institutions and academic scholars are mandated to constantly publish, having a greater academic staff complement does assist and does favor the chances in the number of publications that can be

produced. This could be one of the reasons why the institution has always produced a high number of publications especially publishing in these two journals (SAJHRM and SAJIP) with respect to training and development articles. Having a strong and capable academic team does assist in easing the pressure and workload of having to publish.

Institution	Permanently Employed Academics by Highest Qualification									Academics with Masters and PhD as Highest Qualifications
	2015					2016				
	Academics with Masters as Highest Qualifications		Academics with PhD as Highest Qualifications		Total	Academics with Masters as Highest Qualifications		Academics with PhD as Highest Qualifications		
	Head count	% of total staff	Head count	% of total staff	2015	Head count	% of total staff	Head count	% of total staff	2016
SU	260	29%	646	71%	906	262	29%	636	71%	898
UCT	309	28%	787	72%	1096	326	29%	785	71%	1111
WITS	329	32%	701	68%	1030	340	31%	740	69%	1080
UP	360	32%	754	68%	1114	384	32%	820	68%	1204
NWU	435	37%	734	63%	1169	405	35%	767	65%	1172
RU	104	37%	175	63%	279	101	37%	174	63%	275
UWC	200	36%	358	64%	558	217	37%	372	63%	589
UNISA	532	42%	732	58%	1264	574	41%	834	59%	1408
UKZN	480	42%	655	58%	1135	491	42%	667	58%	1158

Figure 6.2: Academics and Qualifications per top performing institutions

Source: (DHET, 2018, p. 26)

With reference to the above two tables, it is important to refer back to the historical past of South Africa. These universities were formally know has white universities and during the time of apartheid more resources were allocated to these universities

Although these universities are now open to everyone, it can be seen that these universities are publishing the most and overall which is in line with the findings of this research study as well.

The effects of apartheid is still being felt with white authors still dominating but there has been an upward trend and we are now seeing authors of , black, Indian and colored decent encouraged to enter academia and publish. This is due to transformation and making laws introduced to assist these previously disadvantaged groups to have opportunities and access to resources (Ruggunan & Sooryamoorthy, 2016).

6.4. Actual Site of Population

In this research, looking at the SAJHRM, it becomes clear that the banking sector was used as the site that was researched the most. During 2003 to 2020, n=6 was produced. Following this was the educational and government sectors with n=5 and human resource professional at n=4. One of the reasons that the banking sector is a popular area of training research is because of the high investment into the sector. And they have high training budgets.

With respect to SAJIP, the educational sector leads the area of most research with n=11, followed by the government sector of n=7 and the banking/ financial sector n=3. Therefore one can conclude that there are overlaps with respect to the two journals. The industry/ sector or sites of the most researched populations are the educational sector with n=16, government with n=12 and the banking sector with n=9 across both journals

It can be pointed out in a study conducted; in the SAJIP revealed that the educational sector still produced the majority amount of publications (Coetzee & Van Zyl, A review of a decade's scholarly publications (2004-2013), 2014). This seems to be consistent with the finding from the undertaken research. This comes back to the reasoning that as explained in chapter two that universities do get funding based on their publications and are mandated to publish. This could be a massive reasoning behind the majority of articles published came out of the educational sector across both journals with *n = 16* (overall).

This is justified when looking at the following statistics to come of South Africa. When looking at the spending of training from government with respect to training and development of public sector employees. The diagram below shows the investment and expenditure of training employees in the public sector per province and the larger metropolitans do spend the most.

This also shows that most of the articles published were based on public sector employees as the amounts invested for training and development are in the upward range of 180 million rand for a province, t is could be done to gauge the need for training and whether it has been working in a form of a monitoring tool ((PSETA), 2018).
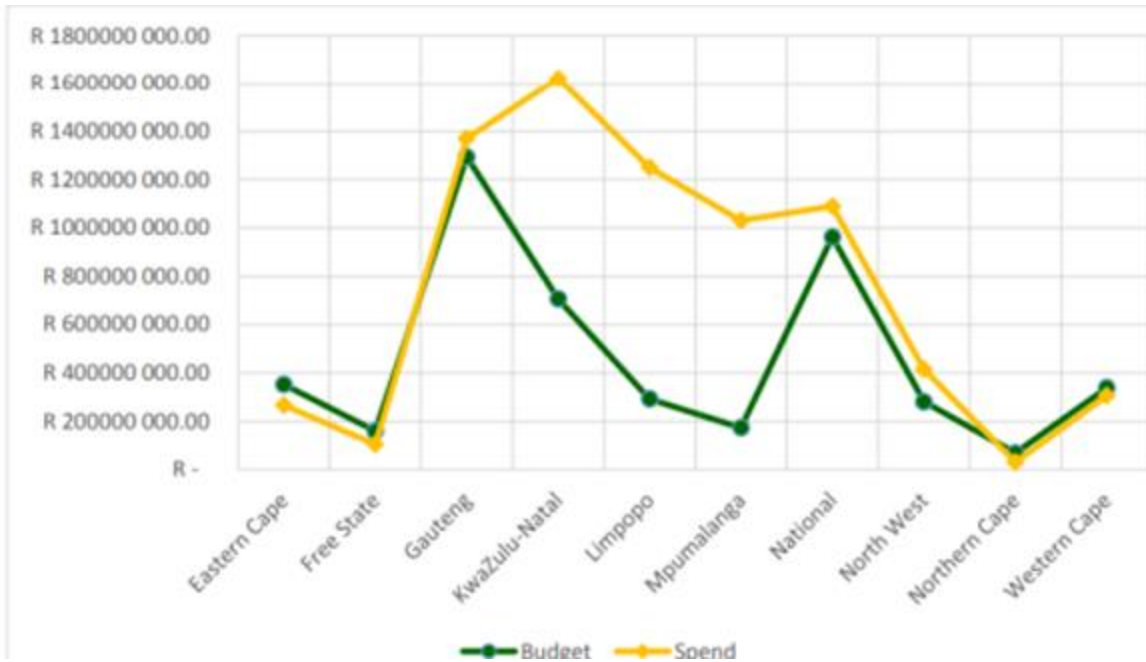
Figure 6.3; Government spending on Training and Development 2015-2017

Source; ((PSETA), 2018, p. 4)

This can also be stated about the banking sector in South Africa. Major Banks invest into training and development of their staff as new technologies and products are introduced in the sector and the dominance of the customer base is imperative to its survival. The diagram below reveals the spending between 2015 and 2017 in this sector. It is important to note that over 823 million was spent on training in this sector in 2018 alone ((PSETA), 2018). This could be a fundamental reason as to why a lot of research in the training and development field has been conducted in this industry.
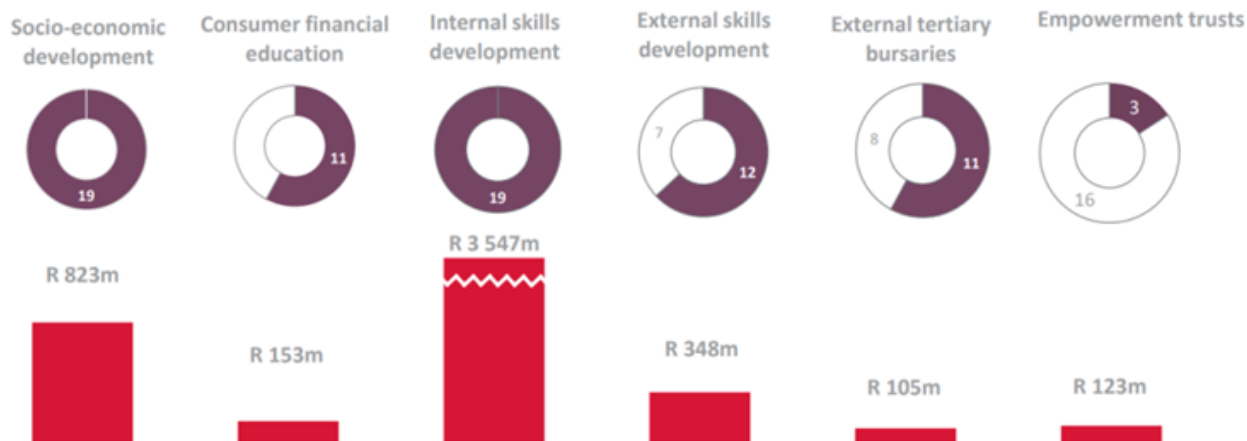
Figure 6.4: Total Spending of the Banking Sector on Training and Development 2018

Source: ((PSETA), 2018, p. 18)

6.5. Number of collaborations (Co- Authorship)

The patterns between the journals differ when it comes to the number of collaborations with respect to co authorship in this field, although in both journals the collaborations over timer seem very erratic and scattered but upon closer inspection, one can notice that has time went on the number of collaborations increased in the SAJHRM, 2003 n=0, 2006, n=3, 2014 n= 5, 2017 n=7 and 2019 n=8. With respect to the SAJIP, the number of collaborations seems to be decreasing with respect to training and development articles being published.

This can be seen by 2006 n=4, 2010 n=5 and 2019 n= 3. But over a period of time this becomes more noticeable. From 2003 to 2011 there have been n=19 collaborations with respect to published articles relating to this topic but from 2012 to 2020, n=13, showing a considerable decline. One of the reasons could be the number of training articles being published have decreased in this journal over this time period.

Author collaboration has been around for many years and has definitely picked up momentum and in a study that was published in 1986 deemed it a very "hot topic" and something that will expand in the future (Smart & Bayer, 1986). Although decades later, this is proving to be true as

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it picked up momentum across many disciplines including human resources and industrial psychology.

In a study that looked at the Journal of Human Resource Management between the years of 1985 to 2005, that spanned two decades also revealed that there is a trend in the number of collaborations amongst authors that were publishing and stated that there seems to be a trend of this to keep growing (Alles & Rodriguez, 2008).

In another study that took into account "7489" research papers in 6 journals between the years 1980 to 2008, outlined that there is an increasing trend of authors collaborating both nationally and internationally (Sin, 2011).

However there also seems to be dominance from certain countries as it was revealed that countries that generated high income, that are based in northern Europe and North America were actually cited more frequently than Asian countries and low level income countries and that these countries although collaborated more, but more at a national level (Sin, 2011).

In a study that looked at the South African Journal of Industrial Psychology by (Bark, 2019) ultimately showed that there is a vital need for South African scholars to collaborate and internationally for various reasons.

Although this journal is set at a high standard there is a dire need to open it up further and (Bark, 2019) suggests that by doing so, the overall viewership and readership will increase and expose our scholars on an international scale better.

(Bark, 2019) Also suggest that this journal (SAJIP) must put measures in place for this to ultimately happen and some of these measures to consider might be to do away with fees that authors need to pay and introduce various discounts with respect to membership.

Exposing South African scholars and welcoming international collaboration will also assist in sharing of various knowledge bases and allow South African scholars to increase their citations and showcase their research to a wider audience (Bark, 2019). As compared to other journals, in a study conducted by (Elango & Rajendran, 2012) revealed that there is a definite increase in collaboration and up to 46% of articles were from international academics and this is gaining even more momentum.

And the South African Journal of Industrial Psychology will have to increase their efforts into networking with various international members and associations to bring forth these researchers to consider publishing in this journal (Bark, 2019). As seen in table 6.1 in the data set of this study there was only a single collaboration with an academic that was a Non South African.

In the figure 6.3 below reveals a trend in the South African Journal of Industrial Psychology that shows a comparison form 2017 to 2018.

TABLE 1: Descriptive statistics for gender and race diversity, origin of authors and collaboration status in *South African Journal of Industrial Psychology* (2018, 2017).

Category	2018 (Vol. 44)	2017 (Vol. 43)
Number of authors per volume	$N = 43$	$N = 36$
Gender diversity		
Women	25	19
Men	18	17
Race/nationality diversity		
White	37	28
Black	1	7
Indian	1	1
Cape Malay	0	0
Other	0	0
Origin of authors		
National	41	29
International	2	7
Number of publications per volume	$N = 18$	$N = 17$
Collaborations per article		
Publications with single institution authors	12	9
Publications with multiple institution authors	4	4
Publications with single authors	2	4

Figure 6.5: showing collaboration for two years in the SAJIP

Source: (Bark, 2019, p. 2)

The above figure reveal that collaboration with international authors has decreased and hence the need to push this agenda of involving wider collaboration. One needs to consider the advantages of this push in that, according to (Kumar, Sankar, & Bindu, 2019) in a study showed that sharing of knowledge proved to be significant and did close gaps that were found with research globally.

They also suggested that other countries and universities need to consider this form of publishing to assist in their efforts of producing research that it aligned to standard adopted by the rest of the world (Kumar, Sankar, & Bindu, 2019). According to (Yeo & Lewis, 2019) collaboration whether nationally or internationally will inevitably assist in developing junior researchers,

reduce the labour involved in carrying out the study, increase quality and more than one individual will be looking at the same problem and engagement with diverse academics and schools of thought.

6.6. Author Publishing

Figure 5.7 shows the number of authors publishing in the SAJHRM (relating to training and development) from (2003-2020). It becomes clear that Melinde Coetzee (n=4) produced the most number of articles during this time frame relating to training and development. It can also be noted that most of the articles being published are done so by academics (A).

Figure 5.8 shows the number of authors publishing in the SAJIP (relating to training and development) from (2003-2020). It becomes clear that Ronel Du Preez (n-4) produced the most number of articles during this time frame relating to training and development, closely followed by Sebastian Rothmann with n=3, however it is important to note that Melinde Coetzee (n=2) has also published in this journal as well making her the leading author with respect to articles published from 2003-2020 in both journals relating to training and development.

It can also be noted that most of the articles being published are done so by academics (A). The findings seem to be significant in many ways, for one, it showed that females publishings are increasing by having Melinde Coetzee having the highest number of articles published with respect to training and development, but in a study conducted by (Coetzee & Van Zyl, A review of a decade's scholarly publications (2004-2013), 2014) revealed she had the second highest overall number of publications in the SAJIP.

During the collection of data, it was made clear that there are authors that only published one article but did publish in both the SAJHRM and the SAJIP.

Taking a deeper look into figures 5.7 and 5.8, authors that are frequently publishing training and development articles in the (SAJHRM and SAJIP) in the 17 year time period, the following can be noted.

Journal	Name	Nationality	Race	Gender
SAJHRM	Anne Crafford	South African	White	Female
SAJHRM	Claude Mayer	South African	White	Female
SAJHRM	Elmarie Slabbert	South African	White	Female
SAJHRM	Ingrid Potgieter	South African	White	Female
SAJHRM	Joha-Louw Potgieter	South African	White	Female
SAJHRM	Mark Bussin	South African	White	Male
SAJHRM	Melinde Coetzee	South African	White	Female
SAJHRM	Robert Rugimbana	Non South African	Black	Male
SAJIP	Anne Buckett	South African	White	Female
SAJIP	Deon Mering	South African	White	Male
SAJIP	Frans Cilliers	South African	White	Male
SAJIP	Lene Jorgensen	South African	White	Female
SAJIP	Melinde Coetzee	South African	White	Female
SAJIP	Michell May	South African	Black	Female
SAJIP	R. Eiselen	South African	White	Male
SAJIP	Ronel Du Preez	South African	White	Female
SAJIP	Rudolf Ooshuizen	South African	White	Male
SAJIP	Sebastiaan Rothmann	South African	White	Male
SAJIP	W.J Coetsee	South African	White	Male

Table 6.1 Bio Data of Authors frequently publishing training and development articles across (SAJIP and SAJHRM)

As seen from the above table, that it is majority of the white academics that are publishing training and development articles across these journals and that only one is a Non-South African. Furthermore these journals were predominately dominated by white males publishing but there seems to be a shift and increase in the number of females that are now publishing, especially in the training and development field.

This can be seen by a study conducted by (Ruggunan & Sooryamoorthy, 2016) that reveal that there is an upward trend in the number of female authors that are now publishing and their dominance is continuously becoming prevalent in the field of social science. It was also noted

that the number of female authors increased in proportion to the years, therefore there will be a larger foot-print of females publishing as the years go on (Ruggunan & Sooryamoorthy, 2016).

And this can be seen in figure 6.1 that reveals that between 2017 and 2018 in the South African journal of Industrial Psychology that female authors did out publish their male counterparts in both years. And as per the undertaken study it is important to note that the two top publishing authors are white female, namely Melinde Coetzee (SAJHRM) and Ronel Du Preez (SAJIP).

According to (Ruggunan & Sooryamoorthy, 2016) major contributing factor is women empowerment and their ability to keep breaking glass-ceiling that is leading to this shift in South Africa. It is important to note that these regular publishing authors with respect to training and development all hold doctorates and professorship and are employed at various higher education institutions in South Africa. And in the entire data set no students have published.

According to (Mbali, 2011) one of the reasons could be the pressure put on academics to publish as it now being part and parcel of their key performance areas and have to deliver or they will remain in stagnant positions or possibly be replaced. Although there seems to be the white race group still dominating the publications in these journals which can be seen from the conducted research and figure 6.1 adapted from the SAJIP.
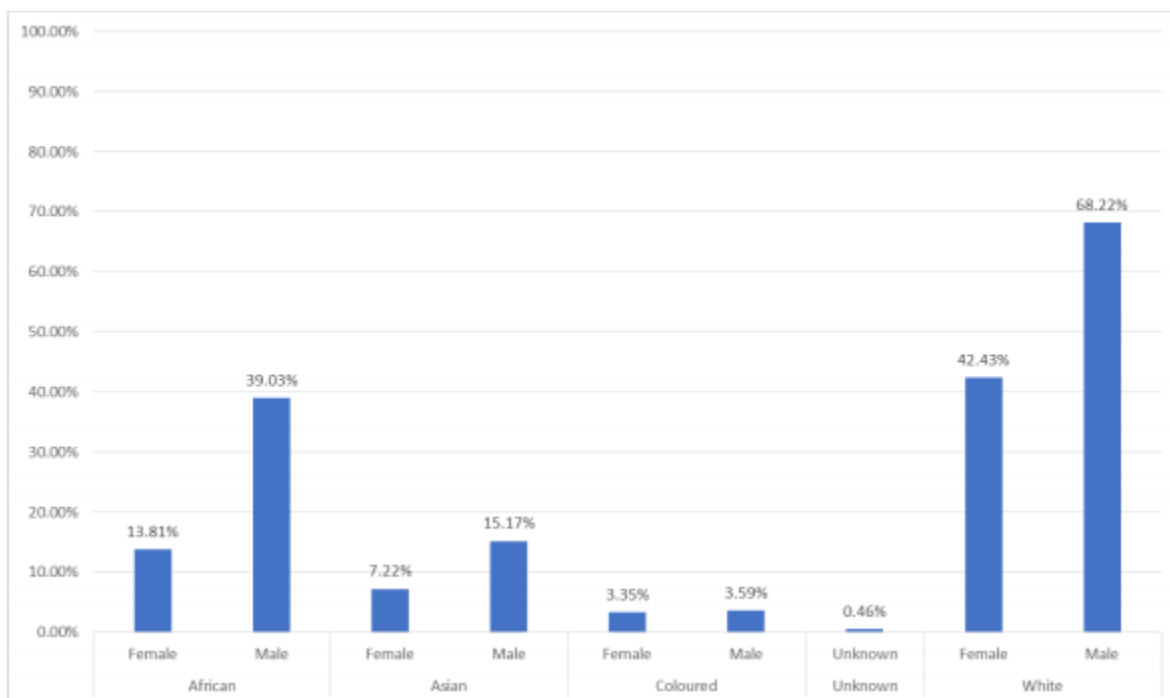
Source: (DHET, 2018, p. 36)

As seen in the figure 6.4 above that this is consistent with the findings of the research, that there are more males publishing and it is more of the white race group.

This white male dominance in this sphere is still prevalent (Ruggunan & Sooryamoorthy, 2016). According to (Prozesky, 2006) research in both qualitative and quantitative approaches must be done on a continuous basis to understand these "gender gaps" better in South Africa and formulate strategies and policies to overcome this. But it can be seen that female scholars are publishing more frequently than before especially in the field of training and development. This shows procgress in shattering glass ceilings in the discipline and in academic publishing.

6.7. Theories/ Models Used

Figure 5.9 shows Theories or Models used in the SAJHRM (2003-2020). The figure reveals that Model of total rewards n = 8 was used the most, followed by triangulation n=3, and seven factor model of training and development and choice based modeling n =2 respectively.

Figure 5.10 shows Theories or Models used in the SAJIP (2003-2020). The figure reveals that phenomenology model at n = 2 were used the most, followed by models that were unknown n=12, the rest of the models or theories that followed varied per article in this journal.

From the above data it can be concluded that there is no dominant theory used as their grand total is low with respect to the South African Journal of Industrial Psychology. But they do play a significant role, which are phenomenology and regression.

In a study done in 2019 regarding police men and women, using the phenomenological research design it reveal that their well being has been affected and this in turn affected their overall performance and one of the recommendations was that there need to be, greater training needs and work place counseling. It also showed that better leadership is required. This also in turn

correlates with one of the themes and recommendations of this study. Therefore the phenomenological research model is vital.

With respect to the regression model it is a type of model that allows just one variable to be compared to another (Sarstedt & Mooi, 2012). And it does assist in providing valuable results. In one study conducted by (Mafini & Pooe, 2012) with the use of regression analysis yielded that a better work environment is needed by government personnel as in line with the findings in the themes of the study. It is important to note that theories and models give structure and better understanding to concepts and findings.

In the data set it became apparent that the model of total rewards seemed to be prevalent in South African Journal of Human Resource Management. This can be attributed to the fact that there are plenty studies that looked at various reward systems as a form of motivation. In one study, according to (Hoole & Hotz, The impact of a total rewards system of work engagement, 2016) it was found that less that 30% of employees actually were fully committed and occupied in their work and proved that there is a dire need for employees to be trained and their careers managed.

In another study utilsing the rewards model revealed that Gen Y employees require to be lead by better leaders, a better work-life balance and training to enhance their development in the workplace and to continuously up-skill themselves. (Bussin, Padayachee, & Zaka, 2019) .

This as well seems to be in line with overall themes and recommendation of the study. The fact that these theories and models seem to be used and are proving to be effective is in line with the findings of the study.

Compared internationally, there isn't enough available literature that takes into account trends (that is, empirical, methodological and theoretical) in training and development. Therefore conducting this research in South Africa becomes a valuable contribution into the field of training and development and the discipline of human resource management.

6.8. Popular Themes

There are some common themes that came through from both journals. The common themes that came through are, Management support/ Poor Management, Job Performance, Skills

Development and Skills Shortage and a strong theme that came through was diversity training in both journals.

The South African Journal of Human Resource Management produced additional themes in the data set such as, career advancement, communication, and employee retention, lack of training, leadership, motivation, rewards and work-life balance. On the other hand the South African Journal of Industrial Psychology produced themes such as, basic computer skills, ethical training, innovation and technology, learning, on the job training, policy training, practical training, simulation and workplace counseling.

It can be noted that there are many overlapping themes from the study and this can be because the journals are similar in the way that they do cover similar topics and deal with people from a social science view and because the data set dealt with training and development but it is important that these journals do separate their schools of thought with respect to training and development and that the SAJIP should consider more psychological aspects and affects of the training processes in the work environment and consider analyzing their behaviors pre and post training and possibly investigate the impact of skills transfer.

Although there hasn't been a study that solely reviewed training and development across these journals there are similar themes as well throughout these two journals.

Work- life balance was a strong theme to come through in the SAJIP and it can be seen by (Babic, Gills, & Hansez, 2020) that shows that there is a ever mounting need for supervisors to offer employees more support and take notice of the fact that need to support their well-being.

Being aware of overload of work and the need to balance home and work activities is detrimental to leading a happier more fulfilling life as up to one third of one's time is actually spent on work and work related activities (Babic, Gills, & Hansez, 2020).

This is also pointed out in a few studies within this journal, one that was conducted by (Wet, Koekemoer, & Nel, 2016) revealed that managers and supervisors have to respect employee's time better and engage with them on a human level and not be so driven by output.

Another theme to come forward was the use of simulation for training purposes and to obviously grasp new methods of doing thing and learning in order to develop ones-self. This comes through

when a study conducted by (Becker, Meiring, & Westhuizen, 2019) looked at simulation (in basket method) in the workplace, it was found that it produced a positive outcome in how one would react to real life procedures and events and even as far as simulations in business and how would one conduct themselves in this aspect.

Career advancement was also a theme that came across both journals and in the SAJHRM a study conducted by (Oosthuizen, Coetzee, & Mntonintsh, 2014) revealed that companies need to not drag their feet regarding this issue and need to provide plans for employees future. It was also seen that people want to enhance their careers and since there are 4 generations in the workforce this is now even more important as employees need to feel secure and a need for belonging in an organisation (Oosthuizen, Coetzee, & Mntonintsh, 2014).

This is further emphasized by a study in the same journal according to (Coetzee, Ferreira, & Shunmugum, Psychological career resources, career adaptability cohorts in the media industry, 2017) that looked at n=248 personnel in the media industry and found that people found that was a lack of engagement with them and poor or no discussions around their career was a cause of concern for them. Just as in the SAJHRM similarly in the SAJIP a study with n=24 senior managers according to (Koekemoer, 2014) revealed that there were many factors that affected career advancement "internal and external".

Some of the internal factors like skills and their educational level were considered internal and could be managed by themselves by the external factors such as their business environmental factors or political factors should be considered by their employer as long as there was commitment from both parties regarding their career aspirations being fulfilled (Koekemoer, 2014). This shows that it does not matter the level or status of the employee within the organisation regarding career advancement, as all require career success and fulfillment.

Skills shortage has been in the forefront since the inception of the undertaken research. And the trend continued throughout the study and this does make sense has this directly leads itself into training and development. Skills shortages therefore became dominant theme across both journals.

A study conducted in the SAJIP by (Maelekanyo, Coetzee, Masenge, & Tshilongamulenzhe, 2013) that took into account, the assessment of "652 skills practioners" in South Africa and

revealed that there is a massive skills shortage in various sectors and practioners are not skilled enough is enforcing the proper policies and regulations in meeting certain national targets set out by the government. Furthermore according to the same study (Maelekanyo, Coetzee, Masenge, & Tshilongamulenzhe, 2013) revealed that more needs to be done with respect to "occupational learning" and the development of programmes to match this learning. This does correlate to the themes that there is skills shortage across both journals during this time period.

There are also performance gaps and practioners would need to get more involved and build and implement proper "human resource development (HRD) policies and frameworks" that assist in closing these gaps (Maelekanyo, Coetzee, Masenge, & Tshilongamulenzhe, 2013). This does coincide with the theme of support from managers and the organization's leadership to assist employees.

Continuous learning and a positive learning environment was a theme as well, and this can be seen by a study of 246 employees in the public service conducted by (Dlodlo & Mafini, 2014) showed that there was a lack of proper reward system in place and this did affect employees negatively and there was poor support from management that displayed extremely poor leadership skills.

In another study published in the same journal (SAJIP) does further emphasize this aspect and according to (Mustafa, Geo, & Rice, 2017) stated that employee learning is fundamental and must be functional in the work environment. The idea is to ultimately create and foster a environment that promotes learning and one that assists in sharing responsibility in managing an employee's career. Building this type of environment is vital (Babic, Gills, & Hansez, 2020). Hence it was one of the strongest themes.

Rewards, leadership and a better work environment are themes that did come across strongly in the SAJHRM and they do overlap with studies from the SAJIP. One such theme was diversity training. One need to consider South Africa's past to understand why this theme did come across. With apartheid being abolished and a newer more dynamic and diverse workforce being introduced in all sectors there will definitely be a need to understand diversity. But diversity doesn't just encompass race, it does cover gender, sexual orientation, new norms, different values, belief systems and religion as well. All these factors play a major role in the workforce

and in empowering the previously disadvantaged groups. As seen in a study conducted by (Zhuwao, Ngirande, Ndlovu, & Setati, 2019) in the South African Journal of Human Resource Management revealed this that one needs to embrace all kinds of diversity and not only look at it as abiding by affirmative action policies but rather as a method to break down barriers and boundaries and overcome stereotypes and look toward building stronger more dynamic teams. According to (Zhuwao, Ngirande, Ndlovu, & Setati, 2019) the entire idea and the need for this type of training is build strong relationships, foster teamwork and create better organizational cultures that produces happier workforces.

As with another overlapping theme but an important one is the one of the learning environment as noted by (Zondo, 2019) in the SAJHRM that technology invention and introduction into the work space is moving at an alarming rate and that there is a need to keep up with learning, skills and training to assist in not becoming obsolete in their work. More investment into resources to assist with this learning and creating a learning organisation is required especially in the manufacturing sector (Zondo, 2019).

As with the SAJIP, other common themes in the SAJHRM are leadership and work- life balance. In a study with n = 400 manufacturing companies in South Africa by (Els, Brouwers, & Lodewyk, 2021) that actually looked at work life balance found that there is greater support needed from managers into understanding how important it is to live a balanced fulfilling lifestyle and that leaders could not decipher how to actually aid employees in balancing their life with work and family.

It further revealed that because of this there needs to be better strategies in place to deal with this and that employees will be more committed and happy at work because this will aid in having a lower staff turnover (Els, Brouwers, & Lodewyk, 2021).

It also found that managers should try to build an environment that allows this and they should also undergo the relevant training to assist them in managing this balanced work ethic (Els, Brouwers, & Lodewyk, 2021).

A study conducted in the same journal by (Vaart & Tone, 2020) yielded the same outcome that leadership seem to be an ongoing issue and that pressure from leaders are leading to fatigue and poor performance due to unrealistic demands put on employees. It further shows that certain

interventions are required as a matter of urgency and that is support from their managers, better leadership and introducing better work-life balance into the company (Vaart & Tone, 2020). It can be see that this problem still continues as an article presented in the SAJHRM in 2017 that looked at leadership and leadership styles, did provide the following outcomes, according to (George, Chiba, & Scheepers, 2017) found that after assessing 160 employees that poor leadership did lead to higher absenteeism and turnover and that managers find it extremely difficult to retain skilled employees.

Thus the recommendation called for change in leadership styles, awareness of people and the situations that they experience and dealing with managing their wellbeing better (George, Chiba, & Scheepers, 2017).

Skills shortage as with the South African Journal of Industrial Psychology is the most dominant theme. As stated those goes back to our past that is still relatively new compared to the rest of the world and has our population grows and we try to catch up, there seems to be a forever ongoing skills gap that government tries to bridge. However this process cannot be solved overnight and requires constant efforts and investments from all role players.

In a study published in the SAJHRM by (Rasool & Botha, 2011) it was found that an ever increasing unemployment in Gen Y (millennials) as put a lot of pressure on government to develop strategies to overcome this and that there is still a large skills gap. According to (Rasool & Botha, 2011) some contributing factors like, HIV/ AIDS coupled with a very high crime, immigration and mortality rate has left the country under even more pressure to "replenish" the job market to individuals who are skilled. The research did recommend that some of the ways to overcome this is increase the level of education, access to education and increase individuals skills set (Rasool & Botha, 2011). And this is in line with the finding of this study as well.

Further studies in this journal (SAJHRM) indicated similar finding with the skill shortage theme. According to (Schalkwyk, Toitt, Bothma, & Rothmann, 2010) that analyzed a study in the petrochemical laboratory found similar results in that authority needed to actually engage with employees more as they were unhappy with skills level and that the finding showed if they did increase their skills set, there will be a decrease in job insecurity. It was welcomed coaching

which is relatively inexpensive if done in-house and that management should get involved more in their development aspirations (Schalkwyk, Toitt, Bothma, & Rothmann, 2010).

According to (Munzhedzi, 2017) revealed that training played a vital role in people performance and that it was found there are still issues regarding identify skills gaps that actually matched a person's job description and task.

The study also showed that, government departments are still underperforming in all sectors in South Africa due to "lack of skills" and incorrect skills gaps identified when needs analysis are conducted (Munzhedzi, 2017). It also showed another theme of poor leadership skills that needed to be sorted and that management was ill-equipped to deal with issues (Munzhedzi, 2017). It was also reveled that a diversification of training methods need to conducted and that since it is a governmental public service department found that more of "simulation" based exercises would benefit them in dealing with customers more efficiently and effectively (Munzhedzi, 2017).

Following this another study conducted in the SAJHRM by (Maseko, Wyk, & Odendaal, 2019) revealed that skill shortages can be overcome with training as it does creates a vital base for both employees and managers to get together and collaborate, transfer skills, impart knowledge and diversify their understanding and shows genuine leadership in the workplace. This does create a better work environment as well as happier working relations.

It's not only developing counties that are experience the shortage of high demand skills, first world countries seem to also be struggling and are now trying their best to keep up. According to (Tang & Wang, 2005) Canada has also experienced this and because of this, industries like manufacturing have shown that their productivity levels have dropped and that there is a need to attracted and retain skilled people.

This trend can also be seen in Europe, in a study by (Voth, 2017) it was revealed that Germany is also experiencing the same in across all sectors and are also finding it difficult to keep up with demand, especially in sectors like health care and technology. Therefore there seems to be a worldwide trend with respect to this and not just isolated to South Africa or third world countries. And because of this South Africa has lost a lot of skilled people that are being attracted by lucrative packages in other countries and assisting them in closing their skills gaps and shortages (Rasool & Botha, 2011).

6.9. Recommendation for Managers

As shown by the themes explained above that the need to rectify all of these challenges are important. The recommendations that came out of the South African Journal of Human Resource Management were the need for better leadership, a better rewards system for employees, a better work environment, a need to build skills into the training programme, employee equity and diversity training and more simulation and on the job training.

With respect to the South African Journal of Industrial Psychology, there were some similarities, better management and leadership, better technology training, diversity training especially more females to be trained, the need for more practical's and more simulations with respect to training. Overall the strong recommendations were the need for better leadership and diversity training.

As with the themes, the recommendations were similar and overlapping as well. The reasons for this could be because of the similarity of the journals and publications in both journals by the same author. In a study conducted by Coetzee & Van Zyl (2014) yielded similar themes and recommendation with the undertaken study.

In a study conducted with hotel managers it was found that managers do read journal articals, although they prefer business articles, it was revealed that they rated academic journals highly (Kay, 2013). In the same study revealed that they use journals for information relating to marketing, training and development and employee management and found that it aids them with SWOT analysis and various enviromental scannings and inturn influences the decisions they do make (Kay, 2013). Therefore journal publications do impact managers in industry and they do read and tap into the information for guidance, planning and strategic decision making.

This can assist in providing the correct learning opportunities for employees and lead to better performing and happier employees (Rodriguez & Walters, 2017).

6.10. Articles per year

With respect to the number of articles being published per year, there has been an increase in the number of articles published, related to training and development in the SAJHRM. In 2019 n=11, 2017 n=8 and in 2014 n=5. From 2003 to 2011 a total of n=13 articles for training and development were published but from 2012 to 2020 a total of n=37 articles were published. The

total number of articles that was published almost tripled during this time period. The year 2003, 2009, and 2020 had n=0 being published.

With respect to the SAJIP, It has been somewhat constant, in 2010 n=6, 2006 n=5 and 2009 n=4. From 2003 until 2011 there were a total of n=22 articles relating to training and development that was published and from 2012 to 2020 a total of n=16, which shows a slight decline. The following years produced n=0, which was 2007 and 2018.

Upon investigation there is no set number of articles or any sort of capping that is put on how many articles can be published in that year, however all articles go through a strict audit process to ensure that these journals publish the best, most relevant and innovative research. They do welcome as many papers to be submitted to them to encourage publishing and work in the field of human resource management and industrial psychology.

6.11. General Overview

The table 5.8 gave insight into a comparison between these variables in the SAJHRM and SAJIP. From this table it becomes apparent that in both journals the most utilised research approach was quantitative in nature. The University with the highest affiliations from both journals were the University of South Africa. Another commonality was the actual site of the populations, and in both journals, the educational and banking sector came out as the most frequently researched sector but taking a look at the overall total it was Education with n=16 across both journals. Therefore since 2003 in both these journals, with respect to articles relating to training and development, these factors are the common ones. It can be noted that the SAJHRM has more publications since 2003, with respect to training and development and author, Melinde Coetzee has published in both journals during this time period with a total of 6 articles.

The general overview has given us a short understanding of the patterns that has emerged from these journals. As stated there are many similarities across these journals as there is a direct link between the fields. The sections and subsections that follow will discuss the results in more detail.

6.12. Conclusion

In this chapter, the results and findings were discussed. It was discovered that, the most utilised research approach in both journals were quantitative in nature. It also lead to reveal that the University of South Africa in both journals have published the most articles, relating to training and development over the last seventeen years, in both journals.

It can also be noted the sector that was researched the most frequent was the educational sector across both journals and that Melinde Coetzee (SAJHRM) and Ronel Du Preez (SAJIP) both published 4 articles in the respective journals but Melinde Coetzee has also published 2 training and development articles in the SAJIP as well. The most utilised theory or model were the Model of total rewards in the SAJHRM and Phenomenology & Regression in the SAJIP.

It was also discovered that in 2019 the SAJHRM published 11 training and development articles, the highest amount over the 17 years and the SAJIP published 6 in 2010.

The themes and recommendations for managers did overlap across both journals as well and there appeared to be common patterns in both journals and some themes like skill shortages seem to in line with international trends and countries experiences the same issues. The following chapter answers the proposed research questions and sheds light on recommendations for the future of training and development in South Africa.
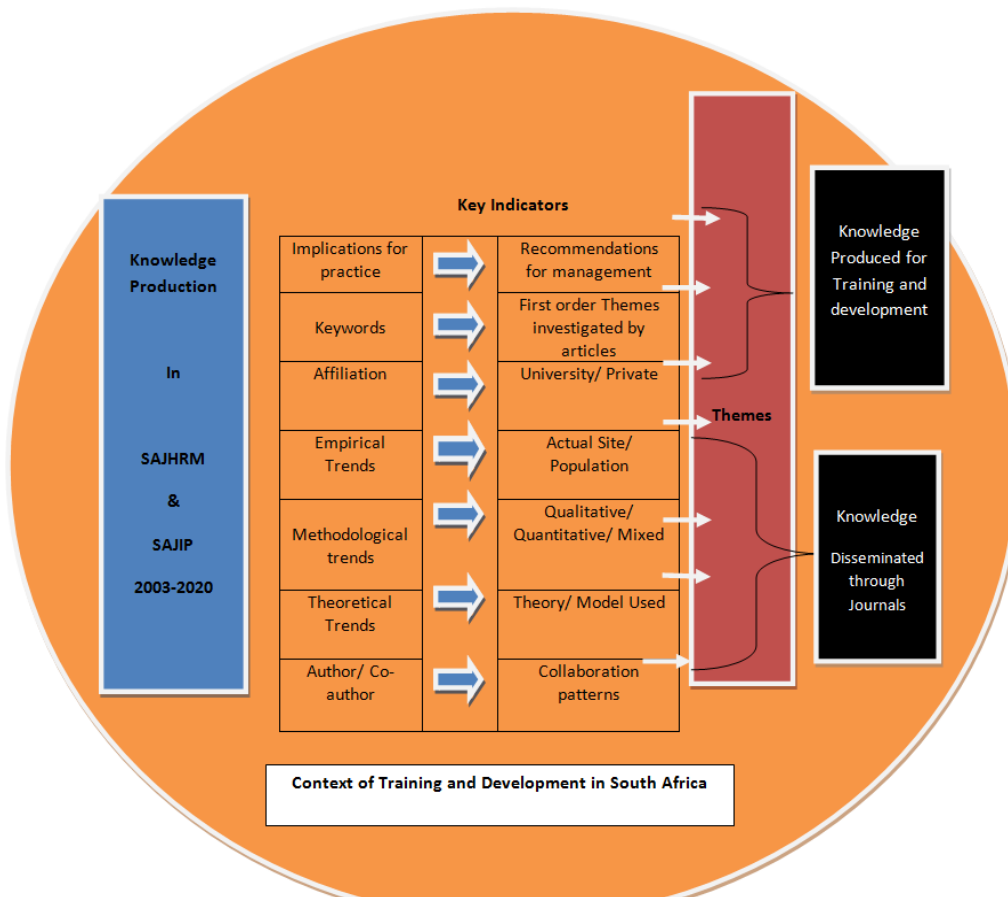
CHAPTER SEVEN

CONCLUSION

7.1 Introduction

In this chapter, the research questions will be answered. It will also reveal the limitations of the study as well as recommendations. Finally it will look at the practical value of the research and the give insight with concluding remarks.

Below is the conceptual diagram of knowledge production (as presented on p.g. 87).

7.2 Summary of research findings

The following provides a summary of the findings thus far.

7.2.1. Research question 1: What are the key empirical trends in Training and Development from the years of 2003 to 2020 in the South African Journal in Human Resource Management and the South African Journal of Industrial Psychology?

In this research, looking at the SAJHRM, it becomes clear that the banking sector was used as the site that was researched the most. During 2003 to 2020, n=6 was produced. Following this was the educational and government sectors with n=5 and human resource professional at n=4.

With respect to SAJIP, the educational sector leads the area of most research with n=11, followed by the government sector of n=7 and the banking/ financial sector n=3. Therefore one can conclude that there are overlaps with respect to the two journals. The industry/ sector or sites of the most researched populations are the educational sector with n=16, government with n=12 and the banking sector with n=9 across both journals.

7.2.2. Research question 2: What are the key theoretical trends in Training and Development from the years of 2003 to 2020 in the South African Journal in Human Resource Management and the South African Journal of Industrial Psychology?

The Theories or Models used in the SAJHRM (2003-2020) the research reveals that Model of total rewards n = 8 was used the most, followed by triangulation n=3, and seven factor model of training and development and choice based modeling n =2 respectively.

With respect to Theories or Models used in the SAJIP (2003-2020) the research reveals that phenomenology method model at n = 2 were used the most, followed by models that were unknown n=12, the rest of the models or theories that followed varied per article in this journal. Therefore is can be concluded a vast array of theories and models were used.

7.2.3. Research question 3: What are the implications for practice in Training and Development based on these trends in training and development in the South African Journal in Human Resource Management and the South African Journal of Industrial Psychology?

The recommendations that came out of the SAJHRM, were the need for better leadership, a better rewards system for employees, a better work environment, a need to build skills into the training programme, employee equity and diversity training and more simulation and on the job training. With respect to the SAJIP, there were some similarities, better management and leadership, better technology training, diversity training especially more females to be trained, the need for more practical's and more simulations with respect to training.

Overall the strong recommendations were the need for better leadership and diversity training.

7.2.4. Research question 4: What are the implications of these trends for future training practice and theory?

To understand and assess the scholarly and applied health of a discipline it is important to understand publishing trends in that discipline. Training and Development is a subfield of human resources management yet little is known about the evolution of South African scholarship in the area over the last 17 years.

It becomes clear from the study conducted that there are certain sectors that seem to have been researched more than others and it seems to be a common trend in both journals. There need to be more diverse sectors researched to greater understand, training and development in other sectors as well. One can conclude that there is a need for better leadership and managerial skills. There is also a massive similarity from both journals for greater diversity training, which includes equal opportunity for females in the workplace.

More practical training is required, so there need to a shift from classroom based training to a more hands-on approach to training in South Africa, especially when it comes to technology training. This will assist in closing the skills gaps that are being experienced in South Africa and produce a more agile and competent workforce. This is deemed extremely important as economies and workplaces are now technology driven to remain competitive globally.

7.3. Limitations of the study

This study has focused on articles published during the 17 year period in the SAJHRM and SAJIP. There are adequate literatures to suggest that such a time frame is ample, a longer period would have afforded more information to uncover discernible trends. It is therefore suggested that future studies include a longer time period.

An additional limitation is that the study focused on two journals. This implies that the findings cannot be generalised to other management-related publications in South Africa, or even to international publications. A potential path for future research would be to carry out similar studies on other South African business journals in turn to expand and get a better understanding of the state of management research carried out in South Africa.

7.4 Recommendations

Although the research dealt with the past seventeen years within the two journals, it is recommended that international journals be adopted for future research. This should bring about a better understanding of how South Africa fairs among other nations and organizations with respect to training and development trends.

Other disciplines of study should be incorporated over a longer period of time as well. This will give a better understand of knowledge production and trend patterns with respect to training and development in South Africa has developed over time.

It is also recommended that the future studies should entail interviewing HRD professionals as well as academics and subject matter experts, both locally and internationally in this field as it will prove to be valuable as a better understanding can be developed. As one can compare trends with what is actually happening on the ground.

This will add valuable knowledge in the field and ultimately assist in bridging any gaps that exist. This is echoed by the fact that there does seem to be a note worthy gap between industry and academic and it is vital that this gap is filled to make sure that this field is moving parallel with world practices (Coetzee & Van Zyl, 2014).

It is also recommended that taking the recommendations for managers within this study ought to be taken into consideration as these findings seem to have had a major impact in the studies and were serious organizational problems that need to be rectified.

7.5. Practical value of this study

This section deals with how the research can be used in real life. This research can assist organizations when looking at training and development trends over a number of years and gauge the effects and outcomes.

It can also assist universities and researchers alike to view what areas has been studied the most and the extent in which universities have been publishing in these journals. Researchers can diversify their sites of research to get a better reflection of training and development in South Africa and to publish articles regarding the sectors that are not well researched, example the mining sector.

Researchers and Universities can also diversify their research collaborations, as it stands the University of South Africa, University of Johannesburg and the University of North West are the institutions that are publishing the most with respect to training and development and it would be beneficial to team up with other institutions and professionals to diversity collaborations.

This can also be said that the authors who are publishing frequently can do the same. Example: Melinde Coetzee and Ronel Du Preez can collaborate with various other authors, especially researchers from international universities.

Academic supervisors can also utilize the research to see the diffident methodologies and trends being used and advise future students regarding their research and future publications. As stated before it will be useful for organizations to look at the recommendations for managers and identify if those issues exist within their company and rectify the pitfalls. This will definitely produce a happier and more skilled workforce.

7.6. Concluding remarks

The trends in training and development in South Africa need to be studied more, but this research does assist in providing a platform and some form of a foundation. The study focused on knowledge production within the SAJHRM and SAJIP and does add value to the research being published in South Africa.

The study looked at the research approaches that was utilised. Thereafter it looked at which universities were publishing the most and the actual site and / or industry of the population.

It was also found that Melinde Coetzee published in both journals and has the highest number of total articles published overall. The research also looked at the number of collaborations and the theories or models that were frequently used. Analysis regarding the highest number of articles published that dealt with training and development which was 11 articles in 2019 (SAJHRM) and 6 articles in 2010 (SAJIP). Common themes, recommendations and the months in which the most articles were published were also revealed.

The aim is to look at more trends in training and development in South Africa and compare them internationally.

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APPENDICES

Mr Preven Singh (205510594)
School Of Man Info Tech &Gov
Westville

Dear Mr Preven Singh,

Protocol reference number: 00011577
Project title: Assessing training and development trends in two South African Journals from 2003 to 2020.

Exemption from Ethics Review

In response to your application received on ____ 15 March 2021 , your school has indicated that the protocol has been granted   EXEMPTION FROM ETHICS REVIEW.

Any alteration/s to the exempted research protocol, e.g., Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through an amendment/modification prior to its implementation. The original exemption number must be cited.

For any changes that could result in potential risk, an ethics application including the proposed amendments must be submitted to the relevant UKZN Research Ethics Committee. The original exemption number must be cited.
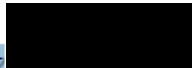
In case you have further queries, please quote the above reference number.

PLEASE NOTE:
Research data should be securely stored in the discipline/department for a period of 5 years.

I take this opportunity of wishing you everything of the best with your study.

Yours sincerely,

Prof Maria Isabel De Azevedo Martins
Academic Leader Research
School Of Man Info Tech &Gov

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