DEVELOPING A STRATEGY TO FACILITATE MULTIGENERATIONAL COLLABORATION OF TEACHERS TO IMPROVE THEIR COMMUNICATION SKILLS FOR TEACHING

by

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Thesis submitted in fulfilment of the requirements for the degree

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December 2020

DECLARATION

I declare that the thesis *Developing a strategy to facilitate multigenerational collaboration of teachers to improve their communication skills for teaching*, hereby submitted for the qualification of Philosophiae Doctor in Education, at the University of the Free State, is my own independent work and that I have not previously submitted the same work for a qualification at/in another university/faculty.

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MAIBI M.E.K.			DATE	

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PROOF OF LANGUAGE EDITING

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To whom it may concern

I hereby confirm that I have proofread and edited the following thesis, including the bibliography.

Title of thesis

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LIST OF ABBREVIATIONS/ACRONYMS

CDA Critical Discourse Analysis

DSG Developmental Support Group

HoD Head of the division

IQMS Integrated Quality Management System

PAR Participatory Action Research

SADTU South African Democratic Teachers Union

SA-SAMS South African School Administration Management System

SMT School Management Team

ABSTRACT

In this study, a strategy to facilitate the multigenerational collaboration of teachers in order to improve their respective communication skills for teaching is developed. I act as the principal investigator, working together with the participants in the research as co-researchers. To achieve the above, the research team used David Parker's principles of knowledge as the research design. Accordingly, it first identified the challenges inhibiting effective multigenerational collaboration of these teachers, resulting in poor communication skills for teaching. Second, the team explored how effective multigenerational collaboration among teachers was facilitated in other settings, thereby leading to improved communication skills for teaching. Third, significant conditions that ensured that effective multigenerational collaboration among teachers did lead to their improved communication skills for teaching were identified. In the fourth place, the team highlighted threats and risks that have to be anticipated, resolved and circumvented when facilitating effective multigenerational collaboration among teachers that would lead to improved communication skills for teaching. Lastly, and based on all of the above, a total strategy that had been tested in the field to facilitate multigenerational collaboration among teachers leading to improved communication skills for teaching was presented.

Conducting this study was necessary for a number of reasons, among other things, because of the increased age diversity among the teaching workforce, comprising of at least four distinct generations of teachers in the same school who use different communication skills. In the previous study, these differences were shown to be confusing, not only among teachers themselves but also from the perspective of the learners. For example, in some cases, information and communication technology is used and shared virtually, while in other cases, teachers prefer in-person, face-to-face interaction and the use of the chalkboard as a teaching aid. Older generations of teachers prefer the latter strategies, while younger teachers tend to use the former. In this study, it is demonstrated how effective (deliberate and structured) collaboration among teachers from diverse backgrounds leads to improved communication for teaching among various age groups. Another reason why conducting the study was necessary is because it shows how the effective facilitation of multigenerational collaboration among teachers leads to the improvement of their communication skills for teaching. This interaction was ignored in the previous research.

The research team used bricolage as the theoretical framework to couch the study and to define the position of where researchers come from theoretically, as required by a mainly qualitative study concentrated in the eight moments thereof. This framing is relevant because of the complexity of the subject matter that this study is handling. The subject matter requires the multimodal, multi-layered and multi- perspectival lenses the team has used in the theorisation, unpacking and understanding of the operational concepts "multigenerational collaboration" and "communication skills for teaching". Bricolage enabled the research team to understand the challenges faced by a multigenerational teaching corps in improving its communication skills for teaching from various perspectives. It further enabled the research team to adopt a myriad of methodologies informed by a wide spectrum of theoretical perspectives as it generated and collected data informed by these individually and collectively.

Even while reviewing the literature, this tapestry of theoretical positions was applied to unearth insights that were not easily discernible when using one lens or perspective or theoretical framework. Conceptually, the research team interrogated the operational concepts of intergenerational collaboration and communication skills in order to enhance the meaning thereof and contribute to a fresh and new understanding brought about by the study.

The research was conducted in Botshabelo, east of Bloemfontein, using three schools as research sites. Eight teachers teaching one of the following subjects were paired: English, business studies, mathematics and physical science. In each pair, one represented an older generation of teachers, while the second was a teacher of a younger generation. Pairing them encouraged networking and enabled them to share problems.

A multiple case study was used to generate data. In order to make inferences about the process, the team relied on the effectiveness of interactions. To analyse the interactions, critical discourse analysis was used to analyse the data at the textual, discursive and social levels. From this analysis, the data were coded and revealed five patterns that were the main causes of poor communication among the different generations. The findings brought about the development of the strategy. A team was established to design a strategy and set goals from different perspectives. Thereby teachers were to be encouraged to share their learning and pool their resources together. Through the use of intra-organisational resources, awareness training on communication competency was applied. Team teaching should be used because it is critical for the success of a school.

Keywords: multigenerational collaboration among teachers; teacher communication skills; work confidence

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CHAPTER 1: ORIENTATION AND BACKGROUND OF THE STUDY

1.1 Introduction

This study intends to develop a strategy to facilitate multigenerational collaboration among teachers towards the improvement of their respective communication skills for teaching. Facilitating multigenerational collaboration implies enabling diverse generations of teachers to learn and share from one another. The value of multigenerational cross-fertilisation of ideas is mutual respect, the validation of one another's strengths, experiences and competencies, sharing responsibility and pooling areas of expertise and resources (Anrig 2013:55; Coleman & Levine 2008:201; Langlands 2012:3; Robinson & Schaible 1995:57; Abrams & Von Frank 2014:25). Emphasising the common goal that emerges from teachers working together, several studies have confirmed the value of a collaborative approach to confronting teaching and learning in the classroom (e.g. Dowling, Powell & Glendinning 2004:315; Gibson & Dibble 2008:221-240; Jacobs 2010:229; Wesolowski 2017:3). The value of such a collaborative is embedded in the improvement of communication skills.

On the other hand, communication skills include the ability of teachers to have one-on-one conversations (Roberts & Billing 2009:3), participate in group discussions or meetings, give formal presentations or speeches and have a secure knowledge and understanding of their subjects and curriculum areas (Teacher Development Agency 2009:26). Mutual respect, sharing responsibility, validating one another's competencies and working towards common goals are the essential skills that allow teachers to participate in group discussions, have a secure knowledge of their subjects and curricula and work together cohesively and professionally towards a common goal (Evans 2017:8; Norman, Golian & Hooker 2005:275; Rigelman & Rub 2012:982-989; Van den Berg, Wetherell & Houtkoop-Steenstra 2004:125). It is against the backdrop of this consideration that the study was conceived. The study intends to explore the value of collaboration among teachers with different generational experiences as a strategy to improve communication skills.

There are several factors that may hamper effective communication. Henneman, Lee and Cohen (1995:103-109) and Pfaff, Baxter, Jack and Ploeg (2014:1148-1149) list a

lack of mutual respect, a lack of confidence, dissatisfaction with the team and an inability to have basic receptive and productive skills. These factors impair communication and therefore prohibit the spirit of achieving set goals within well-set time frames. The value of teachers endorsing one another's competencies immediately disappears to the detriment of effective teaching (Daniels & Khanyile 2013:959). The lack of collaboration among teachers also deprives them of the opportunity to share responsibility, engage with colleagues and receive collegial support, and thereby also the opportunity to have a secure internalised knowledge of the subjects and curriculum. In short, it is to the advantage of them all to pool their resources in working towards a common goal (Killion 1999:74-82; Soodak & McCarthy 2006:461-489). Indeed there is value in teachers participating in group discussions, scheduling together common planning time, having one-on-one conversations and, lastly, collaborating.

Numerous strategies have been employed to improve collaboration, such as understanding cultural diversity (Ferri-Reed 2013:12-14), taking into account the special needs of individuals (Amin, Ahmadian & Diawara 2011:119-120; Huff, Song & Gresch 2014:1), encouraging group work or pair work so as to emphasise peer interaction and sharing responsibility (Greene 2005:34). Simonds, Lippert, Hunt, Angell and More (2008:57) and Stanley (2010:849) furthermore encourage frequent communication in order to endorse one another's talents, to offer opportunities to train and coach one another and to build trust. The value of partnerships between the older and younger generations needs to be considered in order to ensure that they all work towards achieving a common goal (Giancola 2006:39; Norman *et al.* 2005:273; Rigelman & Ruben 2012:979). Therefore, the study is about collaboration among teachers as a critical element in ensuring effective teaching. A particular concept highlighted in the study is generation. In this regard, the study seeks to establish decisively that collaboration among teachers of different generations by far surpasses the many other factors that enhance effective teaching.

Key to the thrust of the study is generation, meaning teachers who have been trained as teachers in different eras, have lived in different periods and have started working as teachers at different times. Put differently, the study seeks to isolate significant cultural elements in the life of a South African teacher that will have shaped his or her

outlook. The assumption is that these cultural elements in different epochs are an indispensable asset in the workplace of a teacher and will therefore be utilised in the management of teaching and learning. In other words, teachers should not be encouraged to work in silos, but there should be cross-fertilisation of ideas and skills at a school. Understanding how to manage differences in communication among the different generations of teachers is important for any school to succeed. Recognising and respecting the differences in the way different generations of teachers communicate makes a school successful.

For practical purposes, the study demarcates four generations, starting from immediately after the Second World War in 1946. These generations are as follows:

- Baby Boomers (born 1946 to 1964)
- Generation X (born 1965 to 1981)
- Generation Y (born 1982 to 2000)
- Generation Z (born 1994 to 2006)

As the study sought to demonstrate that the success of teaching is enhanced by cross-fertilisation of skills and ideas of teachers from different epochs, the research team accepted as a fact that these generations indeed captured significant cultural elements of these periods. There are several studies that motivate these generations (e.g. Al-Asfour & Lettau 2014:58; Bergstrom 2015:44; Evans 2017:8; Gursoy, Chi & Karadag 2013:42; Henneman *et al.* 1995:103; Lyons & Kuron 2014:44; Manion 2003:652-659; Mhatre & Conger 2011:44; Shatto & Erwin 2017:26; Swanzen 2018:126; Yu & Miler 2004:40). The characteristic features of these periods were also taken as a fact in this study. Some of the features argued to be typical of teachers in these particular periods are as follows for the different generations:

Baby Boomers

- They work hard and believe their work defines them.
- They are technologically disadvantaged but are not intimidated by technology.
- They prefer phone calls and personal interaction.

Generation X

- They are less devoted to their work.
- They are loyal to the profession but not the employer.

- They prefer voicemail messages.
- They appreciate coaching and training from managers but prefer freedom to being micro-managed.

Generation Y

- They are goal-orientated.
- They are creative and collaborative.

Generation Z

- They are multitasked and embrace technology.
- They communicate through the use of smartphones and interactive games.
- They engage in classroom discussions.

The underlying message is that each generation has different characteristics that influence the professional views, values and beliefs of that generation (Al-Asfour & Lettau 2014:59). The study used this consideration as motivation for the choice of teachers to be engaged in the research. The study does not limit itself to the features listed thus far.

The success of collaboration depends on staff being educated on the differences in generational attitudes and values through a human resources policy with the aim of doing the following: reinforce tolerance and respect for the different generations (Egri & Ralston 2004:55; Kabila 2014:14; Kupperschmidt 2006:14); boost awareness training on competency in communication to motivate these generations to learn from one another and embrace mutual team goals (Glass 2007:98-103; Kaur & Virma 2011:12; Stutzer 2019:79); enhance positive commitment and support by leadership, encouraging team teaching and valuing the strengths each generation brings (Carlson 2005:A34-A37; Greene 2005:38); and encourage reciprocal care and mutual responsibility (Ellerbrock *et al.* 2015:49).

This study takes into account that a lack of support by leadership may hinder the successful implementation of a strategy to facilitate multigenerational collaboration (cf. Heck & Hallinger 2005:230). Moreover, a lack of commitment and cooperation among the staff members may suppress the successful implementation of the arranged training sessions and cause communication apprehension, either cultural or

environmental, while heredity may discourage employees from getting involved in training (Gardner, Milne, Stringer & Whiting 2003:313-336; McCroskey 1977:78). Furthermore, organisational goals not well defined, as well as communication not properly managed, may result in employees not taking training seriously (Coetzee, Schmulian & Kotze 2014:505-525). Team teaching that is not well organised and managed and a slow pace of interacting and focusing on team building may also create antagonism and resentment among employees. In addition, the huge infrastructural difference and technical and adaptive challenges among teachers may stifle the implementation of the strategy to facilitate multigenerational collaboration (cf. Powel & Kusuma-Powel 2015:66).

The success of generational collaboration is evidenced by increased satisfaction in sharing knowledge with and learning from one another (Johnson 2013:33; Lancaster & Stillman 2005:31; Yada *et al.* 2020:540). In addition, stereotypes and conflict are reduced and respect developed (Pinnock, Chanderdeo, Strydom & Viljoen 2013:169). People work together and are able to share their successes and failures (Shrifian 2011:1169). The role of partnerships as a way of overcoming resource scarcity and the lack of appropriate capabilities is emphasised (Giancola 2006:39; Morgan 2016:19). Collaboration enables teachers to have access to rich multimedia content, which motivates them to use resources efficiently. They work together as partners who share responsibility for planning, teaching and assessing the progress of learners (London & Hart 2004:355; O'Neil, Alfred & Baker 1997:8-9; Rinio 2018:45). It is assumed that once a positive learning environment is created, teachers are enabled to participate actively to achieve success. This encourages openness, sound relations, support and mutual trust and allows members of a multigenerational teaching corps to improve their listening and speaking skills.

1.2 Theoretical framework

This study uses bricolage as a theoretical framework. Bricolage originated from the work of Lévi-Strauss (1966). He used the word to explain how a researcher, as an intellectual "handyman", works with tools to understand humankind (Denzin & Lincoln 2011:14). Bricolage is used as a metaphor to explain the research that allows the researcher to create something from nothing or use available material to achieve emancipatory goals (Kerstetter 2010:1; Mahlomaholo 2013:379-392; Weinstein &

Weinstein 1991:151; Wibberley 2012:1-8). Bricolage uses multiple theories, multiple perspectives and multiple methods. The metaphor articulates how researchers embrace flexibility and plurality by amalgamating multiple disciplines (Baker & Nelson 2005:329-366). By using multiple procedures, voices, resources and textual forms (Mahlomaholo 2013:379-392), the researcher enters the research act as negotiator, treats participants as co-researchers and develops meaning from the information from direct sources.

The key assumptions of bricolage are making do with current resources to produce something new or creating something new from the few available resources or combining limited resources. This means achieving a goal with whatever resources are available or applying combinations of resources to new problems and opportunities (Gabadegeshin & Saheed 2018:103). The bricolage perspective explains service innovation in resource-constrained environments as making do with what is available. This entails improvising when combining resources and networking with external partners (Witell, Gebauer, Jaakola & Hammedi 2017:291). When researchers are guided by bricolage, diverse sources of data are brought together to include multiple perspectives (Grummet 1991:69).

Guided by bricolage as a theoretical lens, researchers are able to look at a phenomenon from different perspectives, using multiple tools and multiple theoretical paradigms in order to reach conclusions and create something new. This enables them to disregard the socially constructed limitations placed on the research by common practices. So, they acknowledge that research is an interactive process and their findings have political implications (Baker & Nelson 2005:330; Büscher, Gill, Mogensen & Shapiro 2001:22-23; Denzin & Lincoln 1999:585; Linna, 2013:1; Stinchfield, Nelson & Wood 2013:890).

In this study, the team regarded bricolage as suitable because the team was able to view the concept from multiple perspectives using multiple theories. The team was also able to identify the limitations the teachers had and was able to motivate them to confront their oppressive situation, namely limited resources at their disposal, a lack of communication skills, a shortage of materials, inadequate structures and a lack of trained personnel. This encouraged them to get resources from outside through networking or make do with current resources to produce something new from limited

resources. The team members were able to criticise themselves and their classroom practices and devise means of changing the systems that oppressed them. This also enabled them to do things differently.

1.3 Research Problem

As a school becomes age-diversified, it faces challenges in managing a multigenerational workforce. The four generations that constitute today's teaching profession do not necessarily collaborate across generations, which creates problems with regard to communication. There is no conscious effort on the teachers' part to explore the value of mutual respect among themselves at the workplace to promote communication skills. There is no deliberate attempt by teachers to share responsibilities and validate one another's competencies. Teachers work in silos with impunity. The human resources that are rich in generational values and experiences in the school setup are simply not utilised to the benefit of the school and the country. This affects the way teachers:

- communicate:
- incorporate technology;
- engage learners with adaptive learning activities; and
- use the advantage of having teachers with generational differences.

1.3.1 Research question

Generational concerns are valid issues with regard to diversity that need to be addressed by schools (Al-Asfour & Lettau 2014:58). Having four generations working together entails serious challenges, which affect the communication skills of teachers. Emanating from the abovementioned statement, the study will therefore try to answer the following question:

How can a strategy to facilitate multigenerational collaboration among teachers towards the improvement of their communication skills for teaching be designed?

1.3.2 Aim of the study

The aim of the study is to design a strategy to facilitate multigenerational collaboration among teachers towards the improvement of their communication skills for teaching.

1.3.3 Research objectives

The research objectives are:

- to identify the challenges inhibiting effective multigenerational collaboration among teachers resulting in poor communication skills for teaching;
- to explore how effective multigenerational collaboration among teachers is facilitated in other settings, thereby leading to improved communication skills for teaching;
- to identify significant conditions that ensure that effective multigenerational collaboration among teachers does lead to improved communication skills for teaching;
- to highlight threats and risks that have to be anticipated, resolved and circumvented when facilitating an effective multigenerational collaboration among teachers that leads to improved communication skills for teaching; and
- to present a total strategy that has been tested in the field to facilitate the multigenerational collaboration of teachers leading to improved communication skills for teaching.

1.4 Research design and research methodology

The study used participatory action research (PAR) to address the need to share power, work with real challenges using the knowledge and skills of a small group. This embraces the less privileged, thereby creating hope for freedom and emancipation (Chatterton, Fuller & Routledge 2007:218). PAR is a subset of action research, with four basic themes, namely empowerment of co-researchers, collaboration through participation, acquisition of knowledge and social change (Mapotse 2012:74).

The origin of PAR can be traced to the work of Kurt Lewin, who is regarded as the founder of action research (Coghlan & Brannick 2003:32-33; Le Grange 2009:3). Lewin revealed the philosophy that people get motivated if they are involved in

decision making (Sheehy 2004:141; Whitehead & McNiff 2006:36). He also introduced the term "action research" as an approach to studying social systems and, through his teaching, emphasised that diverse social problems could be successfully solved if people were involved (Balcazar *et al.* 2004:17-35). His process is cyclical, involving a "non-linear pattern of planning, acting, observing and reflecting on the changes in the social situations" (Noffke & Stevenson 1995:2). Furthermore, his form of action research addresses segregation and discrimination by empowering communities (Ruechakul, Erawan & Siwarom 2015:65). This philosophy of involving people in solving their problems also works in the current study to empower teachers to be able to identify their own problems and implement changes that suit them.

PAR also draws heavily on Paul Freire's epistemology that rejects the view that consciousness is a copy of external reality (Baum, MacDougall & Smith 2006:854). Freire (1972:41) was concerned with improving the poor and marginalised members of society about issues pertaining to literacy, land reform and the community. He focused on collective research and the production of new knowledge through accessible communication (Freire 1970:74). In order to be critical about socio-political issues and economical contradictions, Garcia (2016:64) says people have to be knowledgeable and be able to take action to change their oppressive situations. In line with Freire's epistemology, teachers have to be knowledgeable about socio-political issues and economical inconsistencies in order to be critical about their situation. This encourages them to be involved in order to change their situation.

According to MacDonald (2012:37), PAR is also linked to the following trends: the radical and reformist approaches to assistance in international economic development; the view of adult education as an improved alternative to traditional approaches to education; and the ongoing debate within the social sciences over the dominant social paradigm.

Other groups of researchers, such as feminists, have pushed participatory research by analysing power differences on the basis of gender and supported the importance of collaboration between the researcher and the co-researchers (Denzin & Lincoln 2005:22). Furthermore, Maguire (1987:162) indicates that PAR is similar to feminist research, because knowledge is socially constructed and committed to the empowering of the oppressed.

Other researchers, such as Corey (1953:70), believe that the value of action research is more in the change that occurs in everyday practice than the generalisation to a broader audience. Corey was the first to use action research in the field of education. He felt there was a need for teachers to work together, although in the mid-1950s, action research was seen as being unscientific (McFarland & Stansell 1993:15) and not to be relied upon.

The PAR methodology draws on the knowledge of the user population to identify problems, to identify solutions to such problems, to be able to criticise themselves and their classroom practice and to devise means of changing the systems that oppress them. PAR should be able to present the co-researchers in a study with learning through the construction of knowledge, supported by a higher level of learning. This calls for the co-researchers to be fully engaged, irrespective of their qualifications and social standing in the community in the construction of knowledge.

For PAR to be successful, there should be in-depth conversations about the topic, with social support for achievement and integrated learning (Ampudia 2016:194; Turk 2012:53). This should foster an environment where teachers are challenged to solve significant problems through the process of knowledge creation and the researcher's role is redefined. Although the researcher has specific insight, he or she should be willing to share the objectives of the research with the group through a participatory process.

Several people have mentioned the benefits of PAR. According to Schwandt (1997:12), PAR offers an opportunity to create forums for empowerment. Park, Brydon-Miller, Hall and Jackson (1993:4) say that PAR means putting research capabilities in the hands of the deprived and disenfranchised. In addition, there is an improvement in their self-esteem, and their quality of life is improved (Zuber-Skerritt 1996:85). Taylor (2004:3-14) points out that PAR enhances a sense of empowerment by having co-researchers play an active role in research. Moreover, their professionalism and self-confidence are enhanced (Watters, Comeau & Restall 2010:9). According to Schwandt (1997:12), PAR offers an opportunity to create forums in which people are empowered and able to define their own agenda. Defining "empowerment", Park *et al.* (1993:4) say it means putting research capabilities in the hands of the deprived and disenfranchised; this enables them to examine their

knowledge and acquire skills that develop themselves as persons. Since empowerment develops people inside, they feel confident and their self-esteem and quality of life are improved (Zuber-Skerritt 1996:85). In principle, PAR acknowledges the expertise of researchers and co-researchers and encourages a partnership throughout all the phases of research. A desired outcome of PAR is enhancing a sense of empowerment by having co-researchers play an active role in research (Nkoane 2010:317; Taylor 2004:3-14; Watters *et al.* 2010:7-11). It combines a generation of new knowledge with the old to change the activities of the people in question. This results in understanding and prioritising the information gained and developing critical thinking skills (Kalliola 2009:289; Thiollent 2005; Watters *et al.* 2010:10).

The ultimate goal of conducting PAR is using the results and findings towards the improvement of society. This happens when co-researchers educate other teachers and improve the sharing of resources, highlight needs not correctly met, lobby key government officials to advocate for policy changes or demonstrate the need for the new programmes (MacDonald 2012:40; Sagor 2000:7).

The value of PAR is that it allows a researcher to work collaboratively with coresearchers in order to bring about the desired change. It also encourages the
participation of the community in defining the research problem and finding ways of
addressing it. PAR reveals the strengths and barriers that pertain to the effective and
efficient implementation of the strategy to facilitate multigenerational collaboration with
the effect of indicating the course of action that would overcome potential barriers to
the effective implementation of the strategy.

In this study, data were generated through a case study approach, where the coresearchers were key participants to bring about change to their problem. The research process was organised into phases, conducted between August and December 2016. A team was convened, comprising the researcher, three principals of secondary schools in Botshabelo, six learners, a business person, and eight higher education teachers randomly selected. The responsibility of the team was to discuss the challenges experienced by the different teachers when they communicated, how they incorporated technology, how they engaged learners with adaptive learning activities and how they utilised the advantage of having teachers with generational differences. The first meeting was held with the teachers and the team members to

introduce the objectives of the research and the methodology that would be used. This was followed by several more meetings. Provided with consent letters, the teachers and team members were assigned responsibilities for the implementation of the communication strategy. A combination of interviews and focus groups discussions was held to confirm the planning and implementation of the methodology. It was agreed that there would be monitoring by all the parties.

The research site was Botshabelo, which is a township east of Bloemfontein, populated by the poorest of the poor, with highly under-resourced schools. The school libraries mostly contain donated books, the majority of which are not relevant to the curriculum. Furthermore, the laboratories lack critical equipment, the classrooms lack critical teaching aids, the teachers (from different generations) are not adequately trained, the school managers lack experience, and many of the learners come from child-headed families.

In the two schools, the teachers were divided into content teams comprising two teachers from the Baby Boomer generation or any younger generation teaching the same subject within the same grade. The focus was on curriculum and pedagogy. They planned the sequence of topics and competencies they had to teach. This guided the curriculum units and daily lesson plans, including scripted introduction, explanations and questions the teachers could use to gain a deeper understanding of the topics. Data were generated through multiple case studies where the team observed different generations of teachers teaching, followed by the analysis of documents and policies. Video recordings were also made, followed by summarising the behaviour of the individual and the group (cf. Caldwell & Atwal 2005:42). A pretest and a post-test of the individual and the group were conducted. These were followed by meetings and discussions on the content and skills observed. The team focused on making inferences about the process and the effectiveness of interactions.

The data were analysed using critical discourse analysis (CDA). This technique reveals unspoken and unacknowledged aspects of human behaviour. CDA focuses on social problems and political issues and reveals multidisciplinary challenges and relations of power and dominance in society (Van Dijk 1993:249). Text, discursive practices and social structure are employed in order to draw conclusions in CDA (Mahlomaholo & Nkoane 2002:69-85).

1.5 Value of the research

The study will help teachers share skills and resources and be tolerant of one another, which will help improve communication skills. It will assist the Department of Education in training teachers to improve curriculum delivery, share their learning and learn from one another. School principals can use the information to develop training material for newly appointed teachers. Health services, social services, youth leaders, parents, the local government, higher education teachers and local businesses will be able to understand the role played by multigenerational staff in communication and how it may benefit society.

1.6 ETHICAL CONSIDERATIONS

Ethical clearance was sought according to the rules of the University of the Free State. The researcher also requested permission to conduct the research from the Department of Education and all the team members. The purpose of the study was explained to the participants and they were guaranteed confidentiality and anonymity in the process. All the documents were safely stored. The researcher treated the participants with respect throughout the study. Any potential harm that might manifest in aspects of domination and exploitation that negated the ideals of social justice and democracy was avoided.

1.7 LAYOUT OF CHAPTERS

Chapter 1 comprises the introduction and background of the study. The challenges, possible solutions to these challenges, conditions of success, threats and indicators of success are discussed. In Chapter 2, the theoretical framework for the study is discussed and a literature review is done. Chapter 3 consists of a discussion on the methodology and research design, focusing on strategy formulation. Chapter 4 contains the data analysis and the interpretation of the data using CDA, text, discursive practices and social structure. Chapter 5 provides the findings, conclusion and recommendations of the study.

CHAPTER 2: THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.1 Introduction

This chapter starts with the historical development of qualitative research in order to highlight bricolage as a qualitative research method. The origin of bricolage as an acceptable methodological procedure in the education sector and the objectives, roles and importance thereof as the framework most suitable for this study are also explained. Thereafter, providing the theoretical assumptions underpinning this research enables everyone to share the common language, to judge, to predict and to locate the research on the study tables of global figures for them to make their input.

2.2 Bricolage as a qualitative research method

2.2.1 Theory as a basis for discussion by researchers

It is appropriate to begin the discussion of bricolage as a qualitative research method by briefly stating that theory is a structured phenomenon. Its structure comprises four aspects, namely:

- The core structure T of theory
- The hypothetical constructs to test the core structure T
- The values binding practitioners in the discipline
- The exemplars typical of the paradigm

These aspects are clearly articulated in Bird's (2018) discussion on Thomas Kuhn in the *Stanford Encyclopaedia of Philosophy*. Bricolage has to be located somewhere in the four aspects of theory as a structured phenomenon. Theory provides a basis for discussions by practitioners. In this regard, researchers have a common ground for embarking on activities typical of researchers. Key aspects of research are the population, sample, data, variables or factors and tests or experimentation. Population covers the scope of research. Sample involves selection that is representative. Data cover elements that have to be collected to validate the hypothetical constructs during experimentation. The results of the experimentation lead to the researcher's findings. Results are measured in terms of a null hypothesis, whereby they are rated as

significant or insignificant. These are the characteristic features of scientific research typical of social sciences and hard science.

Research in humanities, on the other hand, needs not follow the lines described in the above paragraph. Humanities are disciplines such as literary studies, history, education and so forth. The emphasis in these disciplines is on human values, the human spirit, human expectations, the human essence and spiritual aspects of man; anything that extols the virtues of humanity counts. Man's relation with the cosmic world, man's interaction with nature itself and the forces that bind it together as God's creation are matters that count in humanities. These matters are spiritual in nature and are less verifiable. It is only through establishing regularity or patterns in the nature thereof that the researcher establishes evidence.

2.2.2 Evolution of bricolage as a research method

Unlike social sciences, humanities have been grappling with the management of contradictions inherent in the desire of researchers to be humanistic, while at the same time, the search for absolute knowledge through empirical methods is not compromised. Strict positivism has always been a headache to humanities until in the 20th century, researchers started to emancipate themselves from the constraints of searching for the absolute truth. Researchers started valuing information about people and their personal experiences and valuing observations made in natural social settings and natural interpersonal interactions. This is the context that led to a new move, namely qualitative research (Denzin & Lincoln 1994:3; Denzin & Lincoln 2005:2; Jameson 1991:3), which has evolved over eight moments in its development. These moments in the development of qualitative research are as follows:

- Traditional period
- Modernist phase
- Blurred genres
- Crisis of representation, legitimation and praxis
- Postmodernism
- Post-experimental
- Methodologically contested representation or the present
- The future moment

Presenting these moments as eight in total, there is no intention to claim that they do not overlap. What is significant is that research in humanities has been evolving. The emphasis on reason and observable and verifiable evidence has been waning over time. During the traditional era, positivists dominated the scene. It was assumed that only through reason and observable experience one could gain meaningful knowledge. The human spirit suffered a great deal during this era. Creativity also suffered. Only empirically verifiable studies received funding and recognition. The cry by humanists for human values, human beliefs and human expectations in the assessment of data collected was ignored during the traditional era. The development of the emancipatory paradigm originates from the steady rejection of the positivist view of social research as a search of absolute knowledge through scientific methods (Lewis 2009:3). According to social researchers, information about people and their personal experiences is usually collected through interacting with such people, observing them in their natural setting and even interviewing them (Denzin & Lincoln 1994:3; Jameson 1991:3).

2.2.2.1 The traditional period

The positivist approach was the dominant and unquestioned methodological orientation during the first half of the 20th century (Glicken 2003:20). There is a debate about who first came up with the term "positivism". According to Gertrud (2009:1), Henri Saint-Simon coined the term "industrial" and introduced the notion of "positive and philosophiae positive"; however, positivism, according to Gane (2006:1), was invented by the French philosopher Auguste Comte between 1830 and 1842 and then became the focus for the intellectual movement in France. Comte described the historical sequence of the human mind in three steps: theological, metaphysical and positive (Nekrašas 2016:54). He was eager to discover natural laws that applied to society and viewed natural sciences as a necessary step in the development of social science (Wernick 2001:23). The most important features of the philosophy were that natural sciences were regarded as the key and only model for inquiry and that true and meaningful knowledge could be gained through reason and observable experience (DePoy & Gitlin 2016:45; Glicken 2003:21; Guba & Lincoln 2005:198). This meant that researchers would only gain knowledge if they carried out experiments.

According to positivists, knowledge can be expressed in universal statements and statistics, and their methodology is linked to a testable theory, which has the advantage of having the results replicated by others and findings applied to a wider population (Collins 2010:38; Glicken 2003:29; Guba & Lincoln 2005:195). They believe that there is technical knowledge to uncover factual truths for the sake of eradicating social ills (Baker & Nelson 2005:335; Humphrey 2013:5). Therefore, any knowledge that cannot be observed and measured may not qualify as true knowledge (Denzin & Lincoln 2005:101; Lewis 2009:3). Also, positivists believe reality is separate from the individual who observes it.

The positivist approach attempts to derive scientific rules for creating a one-to-one correspondence between reality and how it is presented in research, so that there is no bias or ambiguity (Denscombe 2002:11; Niiniluoto 2002: online). The epistemological view of positivism is based on the assumption that it is possible to know and understand a phenomenon that resides outside ourselves, separate from the territory of our subjective ideas (DePoy & Gitlin 2016:45). Positivists guarantee or warrant the fact that a research presentation truly represents reality (Denzin & Lincoln 2005:100).

Although the positivist umbrella of research is not a widely accepted paradigm of research, as a bricoleur, it was necessary to consider it in this study in order to enrich the knowledge on multigenerational collaboration other than using a single theory that can limit it. By using positivism and other theories, the research team was able to uncover a new world of research and knowledge production (cf. Denzin & Lincoln 2011:168).

Positivism follows a well-defined structure and believes that there is a single reality that can be known through reductionism, which ensures minimum room for errors (DePoy & Gitlin 2016:47). By using positivism in the study, the team would be able to gather facts in order to gain a general understanding of the phenomenon and thereby eliminate misconceptions about multigenerational collaboration. However, the team encountered several challenges in using positivism. The team felt that positivism is based on the notion that science is the only way of learning about the truths (cf. Denzin & Lincoln 2005:119), which is contradicted by social constructivism that believes that knowledge can be derived from discursive practices through which people are

characterised and that meaning can be understood from personal experiences (Denzin & Lincoln 2005:104).

Positivists believe that everything can be measured and calculated; in a way, they tend to be inflexible, because they see things as they are and disregard unexplained phenomena (Antieno 2009:14). However, there are some things that cannot be easily measured, such as measuring the collaboration of multiple generations.

According to positivism, the role of the researcher is limited to data collection and interpretation, and there is no provision for human interest in the study (Denzin & Lincoln 2011:100; Lewis 2009:3). This is contradicted by constructionism, which believes that the role of the researcher is to engage in discourse in order to get the life experiences of individuals and to examine the discursive practices through which people are characterised and how they operate in a particular context (Hammersley 2013:35). The feminists, on the other hand, also believe that knowledge produced should be able to change the existing structures through empowerment (Kim 2017:15).

Positivists believe that the human experience of the world reflects an objective, independent reality and this reality provides the foundation for human knowledge (Weber 2004:5). This encourages researchers to disregard human emotions and behaviour (Fredrickson 2001:218-226). It relies on experience as a valid source of knowledge even though some things are not based on experience.

Components of positivism are that knowledge can be obtained through reasoning and that research should be empirically observable, as its aim should be to explain and predict (Denscombe 2002:16). In line with positivism, inductive reasoning should be used to develop statements to be tested during the research process (Hammersley 2013:36). Science is not the same as common sense, and common sense should not be allowed to bias research findings, because reality is external (Weber 2004:3).

As a bricoleur, it is important to look at the phenomenon from different perspectives, because that will provide the author with alternative ways of analysing and producing knowledge. Hence this moment will help the author with the tools needed for her bricolage and generate questions previously unimagined even though it does not involve the people being studied, while bricolage emphasises knowledge that is constructed by both the researcher and participants (Denzin & Lincoln 2011:100).

The team was inclined to agree with Kincheloe (2004:323) that knowledge construction neither leads to universal truths nor can it be regarded as lived nor a tidy process, because of the constraints in knowledge production. One method cannot be sufficient to answer the research question, and as bricoleurs, the team was able to use multiple methods, even observing teachers in practice. Observation is usually associated with positivism. It is in this context that bricolage was a suitable lens to help answer the questions that could not be answered using other methods related to positivism in this study.

2.2.2.2 The modernist or golden age

The second moment in the development of qualitative research was the modernist or golden age, which was between 1950 and 1970. It developed from the revolt of romanticism against the effects of the Industrial Revolution and bourgeois values. Crouse (2013:1) views modernism as the humanist philosophy of the enlightenment of which the main tenants were rationalism, freedom, progress and optimism. According to Lewis (2009:7), it was optimistic about discovering universal truths that would explain life and seek explanations in the light of scientific findings. It encouraged the re-examination of every aspect of existence with the aim of finding out what was holding back progress and replacing it with new ways of reaching the same end (Ntini 2014:653).

The modernist approach starts from the premise that our capacity for consciousness in relation to ourselves, others and the world is a distinguishable mark of our humanity (Denzin & Lincoln 2005:2). It is because of this awareness that people should change the world for the better through analysing the present conditions and improving them with the help of scientific, technical and practical knowledge (Denzin & Lincoln 2005:247).

According to modernists, qualitative research can be used to predict future behaviour and identify casual variables (Maxcy 2003:5). As many methods emerged during this period, modernists experimented with different designs, encompassing internal and external validity, as well as casual narrative (Ormston, Spencer, Barnard & Snape 2014:20). A variety of qualitative perspectives also emerged during this period, such as phenomenology, structuralism, feminism and ethnomethodology, while the

meaning of reliability and validity in qualitative research was redefined as well (Denzin & Lincoln 2005:16; Lewis 2007:4).

The epistemology of the modernist theory is based on the creation of cultures with shared patterns of feelings, thinking, believing and doing (Roger *et al.* 2018:1). Modernists believe that the only way of understanding the social world is to draw from the strength of our own humanity in order to make sense of other persons or the community. Ontologically, this paradigm denies the existence of an objective reality, independent of the frame of reference of the observer (Roger *et al.* 2018:1). The role of the researcher is to uncover the hidden assumption about how narrative accounts are constructed, read and interpreted.

The foundational assumption of the modernist approach is that most of our knowledge is gained and filtered through social construction such as language, consciousness, shared meanings, documents and other artefacts (Henning, Van Rensburg & Smit 2005:2). Ethnographers, for example, inhabit the life world under investigation (Whitinui 2014:456). Their focus is the social and cultural world of a particular group, the assumption being that people's behaviour can only be understood within the cultural context in which it occurs (Brink, Van der Walt & Van Rensburg 2014:122).

According to Garrick (1999:149), fundamental assumptions of this theory include the following: individuals are not considered to be passive vehicles in social, political and historical affairs; any event or action can be explained in terms of multiple interacting factors, events and processes; it is difficult to attain complete objectivity; findings cannot be extended logically and be used in some way, otherwise the purpose of research would be questionable; and the world is made of multifaceted realities that are best studied as a whole, taking into account the context in which the experience occurs.

Denzin and Lincoln (2005:103) posit that knowledge is constructed through lived experiences with other members of society. As researchers, we have to participate in the research process with other subjects to ensure knowledge production that reflects reality. This is also supported by Lincoln and Guba (1985:80), who believe that meaning is constructed based on our interactions with our surroundings and the researcher's frame of reference.

Phenomenology is one approach found during this period that studies the human experience through the descriptions that are provided by the people involved therein (Menon, Sinha & Sreekantan 2014:172). The focus of such research is gaining an understanding of the meaning of lived experience. This differs from other forms of naturalistic inquiry in that modernists believe that meaning can be interpreted and explained by those who experience it (Denzin & Lincoln 2005:101), whereas positivists assume that things exist independently of experience and are absolute truths, and there is a belief of a single identifiable reality.

The data collection strategy is the telling of a biographical story or narrative with the emphasis on eliciting experience as it relates to time, body, physical and virtual space, as well as other persons (DePoy & Gitlin 2016:163). This is opposed by the positivists who believe there is no reason to interact with what a researcher is studying. According to them, researchers should value scientific objectivity, not the impact thereof on society. Just like positivism, modernism does not take into account the history, feelings, sentiments, ideology, opinions and beliefs of the subjects under investigation (Ntini 2014:655).

Modernism encourages the formation of protective human rights but fails to understand the non-rational elements of human nature, because it defines humanity in terms of thinking (Denzin & Lincoln 2005:286). It also fails to understand the limits of reason and objectivity, and it has hindered the development of the holistic approach to life and human relationships.

The role of the researcher, during this moment, is to engage in discourse with each participant about his or her life experiences (in this case, as a teacher) and the meaning each person attributes to his or her lived experience (Hatch 1996:359). In doing so, he/she will identify and set aside any preconceived beliefs about communication skills, be open to the meaning that participants attach to research and review the data until there is a common understanding of the phenomenon (Brink et al. 2014:122). Researchers supporting the modernist method of inquiry share the belief that qualitative research can be used to predict future behaviour and identify casual variables (Creswell 1994:4).

As a bricoleur in the modernist phase, it was necessary to focus on collecting, analysing and mixing both qualitative and quantitative data in this study. This was done with the hope that combining both would provide a better understanding of the research problems than either approach alone. It would also help overcome the limitations of a single design. However, critics such as Denzin and Lincoln (2005:281) believe using mixed methods is equated to removing qualitative methods from being a critical interpretive framework. Also, the time required is more than when using a single method.

This moment gave the team the opportunity to raise concerns with regard to the problem. The team was able to re-examine the present and make sure it represented reality. This enabled the team to explain events in terms of multiple interactions and construct knowledge through lived experiences because they participated with teachers in the construction of knowledge. Moreover, this moment enabled the team to generate data by listening to stories told by teachers.

2.2.2.3 Blurred genres

The third moment or the blurred genres phase was between 1970 and 1986. Qualitative researchers were divided on the meaning of reliability and validity and how these concepts should guide and influence research designs (Denzin & Lincoln 2011:100). It was during this period that Paul Freire (1972:25) suggested that qualitative researchers should reposition themselves in relation to how and why they engaged in the process of inquiry. His cry was to work with, and not for, the oppressed, as he felt that engagement would help them reflect and finally come up with a solution to ease their struggle.

According to Lewis (2009:4) and Denzin and Lincoln (1998:19), positivists and post-positivists remained with the scientific model, relying on internal and external validity and objectivity, while constructivists and naturalists moved away from scientific definitions, replacing concepts such as "validity" with "generalisability", and "objectivity" with "conformability" and "credibility", arguing that this restricted researchers from reporting all the data they had collected. Researchers used diverse ways of analysing data, such as observation, personal experience and documentary methods.

Theories developed during this period included symbolic interactionism, constructivism, naturalistic inquiry, phenomenology, ethnomethodology and various racial paradigms. Research was reported using formats such as case studies, biographies, grounded theory and ethnographic research. One approach used during this moment was constructionism, which argued that perception and cognition are active processes in which anything given is a process of selection and construction (Bernard & Bernard 2013:20). This would mean that participants have to be fully engaged in the research process so as to be able to reflect and construct meaning from their engagement and finally be able to ease their struggle.

Constructionism suggests that the character and content of knowledge and understanding reflect the nature of the construction process. The construction process may be influenced by society and culture as these may generate different experiential worlds and knowledge (Hammersley 2013:34). According to constructionism, one has to examine the discursive practices through which people are characterised and how these operate in a particular context and focus on studying the methods or practices through which people collectively construct their shared world (Hammersley 2013:35).

There is also the belief that research is enhanced and findings are likely to be accurate when subjects are involved (Glicken 2003:31). Participants contribute to the research process through their voices, as they fully engage in the research, and this provides credibility to the research, unlike when it is done for them. This moment was vital for the research, because when the data were analysed, the voices of the participants played a vital role and the teachers were able to construct new knowledge.

As bricoleurs, this moment enabled the co-researchers to use different solutions to the problem because it used a multiplicity of theoretical lenses, starting with positivism, modernism and constructivism. This also provided the research subjects with the authority to influence the research process and gave them equal power to develop the research question, conduct the study and analyse the data. The co-researchers were able to examine the discursive practices through which they operated and how. The team was involved in enhancing the findings.

2.2.2.4 Crisis of representation, legitimation and praxis

This moment was followed by the crisis of representation, as it is called by Denzin and Lincoln (1998:19), which occurred between 1986 and 1990. The crisis intensified during this period because of large differences between the lived and narrative lives, and participants' and researchers' accounts. It was also deepened by a lack of different thoughts to characterise the relationship between reality and representation (Sandelowski 2006:10-16).

Qualitative researchers "made research writing more reflexive and called into question the issues of gender, class, and race" (Denzin & Lincoln 2003:26). Theories of this period included the feminist and critical theories. It is understood that multiple methods are used in a single study (Onwuegbuzie, Leech & Collins 2008:15), despite the eight moments in the development of qualitative research. This has the effect of bringing in the researcher's bias, which must be acknowledged and identified. Qualitative researchers must capture authentically the lived experiences without ignoring experiential data. Failure to do so may leave behind valuable data. Lincoln and Guba (2005:19) put forth that the lived experience is created in the social text and then written. This leads to a problem with regard to representation because it confronts the problem of representation that makes the direct link between experience and text problematic and untrustworthy.

In this period, issues of trustworthiness were regarded as problematic, along with the meaning of authority. The idea of trustworthiness had to replace the qualitative criteria of validity, reliability and objectivity. This responded to the claim made by the researcher of knowledge reality. The main aim was to achieve a high degree of accuracy and agreement when revisiting facts and experiences. Internal validity was replaced with credibility, external validity with transferability, reliability with dependability and objectivity with conformability (Guba & Lincoln 1985:236; Reilly 2013:2). The validation involved the testing of data, interpretations and conclusions with participants from whom the data had been collected. This enabled participants to correct mistakes and challenge what was regarded as wrong. In later writing, Guba and Lincoln (1989:236) noted that this had an element of positivism in that there was an underlying assumption that an unchanging phenomenon existed and could be methodically verified.

The crisis of praxis leads to the question whether it is possible to effect change in the world if the society is only and always a text. The crises of representation, legitimation and praxis threaten the ability of qualitative research to extract meaning from data. If there is a lack of representation, it means the evaluation has not adequately captured data. A lack of legitimisation means the extent to which data have been captured has not been adequately assessed or that any such assessment has not provided provision for legitimisation (Onwuegbuzie *et al.* 2008:16; Reilly 2013:17).

Many feminists believe that their research is geared towards the emancipation of women, although some, for example social feminists, believe that it is done in relation to the struggle of society. In this context they must resist dominant ideologies and challenge equitable social relations through their research (Hammersley 2013:34). Ontologically they believe that human nature operates in the world that is based on the struggle for power. This power is created by interaction between the privileged and oppressed, caused by race, ethnicity, socio-economic class, gender and mental or physical abilities (Hammersley 2013:34).

Researchers, during this moment, believe that knowledge that is produced can change existing oppressive structures through empowering them, because their research focuses on studying social structures, freedom and oppression, power and control (Merriam 1991:55) in order to discover the truth as it relates to social struggles. Their methodology is based on empowering the oppressed and supporting social transformation.

However, educational research found its side drawn by both qualitative and quantitative researchers, hoping to limit the attack on social science. Postmodernism is characterised by a crisis of representation, which rejects the idea that the researcher's work is an objective assessment of his or her labour, and instead, these scholars adopt alternatives that encourage reflection of the researcher's work (Lindlof & Taylor 2002:52). This results in researchers being unable to locate themselves and their subjects in reflexive texts, resulting in a stalemate that yields greater diversity in research methods in education and further departure from formalism (Maxcy 2003:5).

This moment had an impact on the study because more teachers were empowered by participating in the research as they scrutinised all aspects of their lives. They were

able to seek data that were transformative and useful in imparting social justice. This caused a challenge to the co-researchers because they were unable to report on the captured experiences as there were calls for the emancipation of gender, for instance by the feminists.

The team realised it was important that the team members should capture data authentically and be able to present the data without mistakes. So, they agreed that all the team members would use tape recorders, with the permission of the teachers, to generate data. This enabled them to record all the information without leaving anything behind. If there was a crisis of legitimisation, they would be able to refer to their recorded data.

2.2.2.5 Postmodernism

The fifth moment is the one that Denzin and Lincoln (1998:22) describe as postmodernism or the present moment, which occurred between 1990 and 1995. The term was coined by Arnold Toynbee, an English historian, in 1838. He used it to refer to the declining influence of Christianity and Western nations post-1875, but the postmodernism philosophy originated in France during the 20th century. The greatest proponents of the philosophy, between 1924 and 1998, were Michael Foucault, Jacques Derrida and Jean-François Lyotard (Dickens & Fontana 1994:25).

Foucault argued that knowledge was produced through the operations of power and changes in different historical periods (Olssen 1999:19). Lyotard (1988:62) argued that modern philosophies legitimised their truth claims, not on logical or empirical grounds but on grounds of accepted stories about knowledge and the world, but said these no longer worked to legitimise truth claims. Lyotard was worried about the narratives in human culture. Both philosophers predicted that more action and activist-orientated research was on the horizon, as were more social criticism and social critique (Williams 2008:1). Looking at both philosophers' ideologies, one realises that their focus was on deconstructing the role that is played by power and ideology in shaping discourse and belief.

Postmodernism was influenced by phenomenology, structuralism and existentialism (Harrison 2001:115). According to Encyclopaedia Britannica (2016), it is critical of some foundational assumptions of the Western philosophy, especially the 18th-century

Enlightenment. It emphasises the importance of power relationships, personalisation and discourses in the "construction" of the truth and world views.

The heart of postmodernism is of the view that reality cannot be known or described objectively, because they believed that an interpreter could not objectively understand the exact mind of the original author, but meaning emerges from the text as one engages in dialogue with it (Andrea 2012:68-87). Secondly, language cannot objectively describe truth, because it is socially conditioned. This contrasts with the modernist view that says reality can be understood objectively.

According to postmodernism, the Western world's claims of freedom and prosperity are nothing but empty promises and have not met the needs of society. Truth is relative and is up to the individual to determine for him- or herself. Also, postmodernism is very critical of the core religion and capitalist values of the Western world and seeks change for a new age of liberty within the global community (Encyclopaedia Britannica 2016).

Postmodernists make language a key problem for social science (Alvesson 2002:65). They take greater interest in the level of meaning and seek to provide space for participants to express their opinions in their own words. Participants are presumed to communicate their feelings, thoughts, values, experiences and observations in a way that renders their inner worlds accessible to research (Alvesson 2002:64). Postmodernists believe that discourse is always fought over; they challenge the idea of a democratic society based on universality but visualise a democratic society built on notions of difference. They are sceptical towards the idea of consensus, as they believe that some groups will always be privileged whereas others are marginalised. They highlight that there are hierarchies in society other than those based on class.

According to postmodernists, ways of knowing are inherently culture-bound. They accept that there are social and historical constraints on what can be claimed as truth, but believe these can be questioned and altered. Their epistemology uncovers the relationship between the truth and power and how power permeates the construction and legitimisation of knowledge (Maxcy 2003:51).

However, there are many points of criticism for this approach. Many believe that the approach breeds untidiness of knowledge, especially in higher education as higher

education places emphasis on what is commonplace in the classroom and less focus on what is of interest to the 21st-century adult student (Williams 2008:4).

Postmodernism suited the current study. The team realised that knowledge was produced through power and was based on accepted stories. Through discussions, the team realised that reality could not be described objectively because of the interpreter. As the team tried to explain that specific activities could be crucial in communication skills, the team members realised that language could not describe the truth because it was socially conditioned. To solve the situation, the team would use materials that had previously been used and correct the imbalances by reminding the participants that they did not possess unlimited potential to understand and change the world for their own purposes, but existed in the world in relation to it. This would also help deconstruct the role power and ideology played in shaping discourses; in this way, the participants would understand that there was no objective moral value.

2.2.2.6 Post-experimental

The sixth moment was from 1995 to 2000. This moment introduced new ways of researchers expressing their experiences of life. They sought to connect their writings to the needs of a free democratic society. Researchers during this moment tried to explore the demands of a moral and sacred qualitative social science (Denzin & Lincoln 2000:17). Evaluation criteria that could prove to be evocative, moral and critical were sought.

The team accepted that this moment suited the present problem, and the solutions could be found by introducing new ways of teachers expressing their experiences. The different generations of teachers could learn from one another through observation in class. Some teachers were more knowledgeable about the use of computers, while others preferred face-to-face communication. This moment encouraged collaboration, which could encourage the co-researchers to analyse the challenges they had and be able to provide constructive solutions thereto.

2.2.2.7 Methodologically contested representation

The seventh moment lasted from 2000 to 2010. This was a period of great tensions, massive conflict, contradictions and hesitations. During this moment, several

researchers made claims regarding the meaning of truth. Many paradigms and approaches were developed (Denzin & Lincoln 2011:100). During this moment, there was a demand for evidence to be produced for evidence-based approaches. This caused serious contradictions in the development of qualitative research.

The team discussed the threats they might encounter in trying to solve their problems. This moment suited the study because it enabled the co-researchers to be on the alert, knowing very well that there might be some backlashes when implementing their strategy. They also noted that the meaning of truth might be highly contested because of the different methods that might be applied.

2.2.2.8 The Fractured future

This moment occurred from 2010 to the present. The future or the eighth moment "confronts methodological backlash associated with the evidence-based social movement. It is concerned with moral discourse, with development of sacred textualities" (Denzin & Lincoln 2011:3). It is interesting to note that this moment encourages social sciences and humanities to be critical about democracy, race, gender, class, globalisation, freedom and community. This has led research to be very critical of oppressive situations and has led participants to be engaged in order to bring about change in their lives.

Having discussed the eight moments in the development of qualitative research, qualitative research means different things in each of these moments. It has relevant histories, controversies and current practices that are associated with each paradigm, strategy and method. As a bricoleur, one has to move to and forth within the paradigms, for instance the doubting postmodernism, the certain traditional positivism and the conservative neoliberal global environment; hence it will be necessary to discuss bricolage in order to prove its relevance for the study.

2.2.3 Bricolage as the theoretical lens

Having discussed the development of qualitative research, it is necessary to discuss the lens that guided this study. The study used bricolage as an approach to qualitative inquiry. This approach is very complicated and cannot be located in one particular moment of qualitative research inquiry, as described by Denzin and Lincoln (2011:3), but resonates among all the moments.

The concept of bricolage and researchers working as bricoleurs is grounded in the work of Lévi-Strauss. Lévi-Strauss (1966:17) and Schwandt (2007:25) have used the term "bricolage" to describe patterns of mythological thought and a bricoleur as an intellectual handyman who works with tools at hand to understand humankind. While engineers work according to set procedures and have a set of specified tools to do their work, bricoleurs use whatever material is at hand and with limited resources. Denzin and Lincoln (2011:4) have adapted the concept to describe the multiple methodologies, multi-perspectives and multi-theories used in qualitative inquiry. They describe a bricoleur as one who is intellectually informed, widely read and able to draw on diverse conceptions of reality and knowledge (Denzin & Lincoln 2011:4).

Researchers (notably Baker & Nelson 2005:330; Garud & Karnøe 2003:278; Halme, Lindeman & Linna 2012:661-683; Mietlinen & Virkkunen 2005:437-456; Weick 1993:346-384) have used bricolage to connote resourcefulness and improvisation on the part of involved actors. Bricoleurs are creative problem solvers. Berry (in Kincheloe & Tobin 2006:103), Denzin and Lincoln (1999:105) and Lévi-Strauss (1966:17) have looked at it from different angles. Lévi-Strauss (1966:17) has used bricolage in search of underlying structures that govern human meaning making and believe that knowledge production activities cannot be approached with concrete plans, tools and checklists. Denzin and Lincoln (1999:105) believe bricolage to be a political approach to research, while Berry (in Kincheloe 2006:103) has looked at bricolage from the critical constructive position. According to him, knowledge is temporal and culturally situated.

The foundation of bricolage is on the basis that organisations, for instance, are confronted with environments that pose challenges and lack resources to meet these challenges. This lack of resources may involve strategic resources, high-quality raw materials and commodities, infrastructure, trained personnel and a politically unstable environment (Linna 2013:3). In such situations, Baker and Nelson (2005:255-276) suggest that the organisation gets resources from outside or downsizes and applies a combination of the resources at hand, whether previously used or not, to new

problems. This can be done through physical input, skills and labour input, customers or the market and an institutional regulatory environment.

- Physical input: This means using new or previously used material for something new and of value.
- Skills and labour input: This means allowing and encouraging amateurs and self-taught skills that would otherwise go unapplied to create something or solve a problem.
- Customers or the market: Providing services that would otherwise be unavailable in order to solve the problem.
- Institutional regulatory environment: This means refusing to enact limitations
 with regard to many standards and regulations by trying things in a variety of
 areas in which the participants either do not know the rules or do not see them
 as constraining.

It is in this context that for the purpose of the study, bricolage was used either in the form of physical input, skills and labour input or the market in order to solve the identified problem.

Scribner (2005:296) describes the components of bricolage as creating something new with what is at hand. There is no need for new tools to address the problem. This means bricolage is considered to be developmental and action-orientated. Using combinations continually and arranging and rearranging available materials and resources make a successful bricolage and a creative bricoleur. Tools that are acquired may be attained not with a specific use in mind but with the hope that they will be useful and because they have a heterogeneous use, as each element has a variety of uses (Level & Hoseth 2008:37). These components should help bricoleurs identify their challenges, reflect on these challenges and be empowered to engineer their future through action and critical reflection.

The main objective of bricolage is to allow a researcher to create something from nothing or use available material to achieve emancipatory goals (Kerstetter 2010:1; Mahlomaholo 2013:379-392; Weinstein & Weinstein 1991:151; Wibberley 2012:8). Bricolage uses multiple theories, multiple perspectives and multiple methods and embraces flexibility and plurality by amalgamating multiple disciplines (Baker & Nelson 2005:329-366). By using multiple procedures, voices, resources and textual forms

(Mahlomaholo 2013:379-392), the researcher enters the research act as negotiator, treats participants as co-researchers and develops meaning from the information from direct sources. Kerstetter (2010:1) asserts that bricolage offers a democratic model of who can produce, own and use knowledge. It is collaborative in every stage, involving discussions, pooling skills and working together. It is intended to result in some action, change or improvement.

When using bricolage, some challenges may be encountered. Bricoleurs' work is uncertain and is never identical, which makes it difficult to be reproduced and replicated (Kincheloe, McLaren & Steinberg 2011:168). Schools also exhibit their own unique context, which causes difficulties for bricolage to be used. Bricoleurs fail to read widely and are unable to understand the different theoretical contexts in which the object is interpreted (Rogers 2012:6). It is sometimes difficult for a bricoleur to use multiple tools and use different methods to gather data. Bricoleurs tell stories, and if they fail to tell stories, they are unable to give a representation of the many sources they have studied. The success of bricolage is when those who are disempowered are empowered, but sometimes it is not the case.

For bricolage to be successful, participants are not be confined to one discipline but encouraged to disregard socially constructed limitations and combine resources to solve problems using resources at hand (Baker & Nelson 2005:336; Denzin & Lincoln 2011:171). Moreover, participants should be enabled to use multiple strategies to construct, reconstruct, negotiate and readjust knowledge in order to highlight their interpretation and understanding of the phenomenon and how it is influenced by their personal history.

2.2.4 Types of bricoleurs

Denzin and Lincoln (1999:19) distinguish between five different types of bricoleurs: interpretative, theoretical, methodological, narrative and political.

Interpretative bricoleurs draw their techniques from multiple perspectives, voices and sources and are aware that power and knowledge are connected and research findings have political implications. They produce a bricolage that is a pieced-together set of representations that are fitted to the specifics of complex situations (Weinstein

& Weinstein 1991:161). The choice of strategy and material they use is not set in advance but depends on questions posed, and these questions depend on context. Interpretative bricoleurs understand that research is an interactive process shaped by their personal history, biography, gender, social class, race and other people in the setting (Denzin & Lincoln 2000:16). They emphasise the importance of engaging with the way participants think, attempt to adopt an insider perspective on the research topic and understand the essence of what they are describing (Denzin & Lincoln 2000:17). Furthermore, they continuously evaluate subjective responses, intersubjective dynamics and research processes and recognise how actively knowledge is constructed (Rogers 2012:5).

As participants in this research, the team examined the challenge from different angles trying to establish a suitable interpretation of multigenerational collaboration and communication skills. This led them to find out which communication skills really affected the imparting of knowledge. They also looked at the different subjects that affected the performance of learners. They finally agreed to focus on English, mathematics, business studies, physical studies and general administration. This entailed content comparative analysis, discursive and textual analysis and ideological analysis, but at the same time allowing contextual contingencies.

Theoretical bricoleurs read widely and are knowledgeable about the many interpretive paradigms that can be brought to any particular problem (Denzin & Lincoln 2000:16). They work through and between multiple theoretical paradigms that may compete or have an overlapping perspective and paradigm (Denzin & Lincoln 2000:16), such as cultural studies, positivism, constructivism and feminism, in order to solve the challenges faced by teachers when communicating. Theoretical bricoleurs perform multiple readings of texts on phenomena. This allows them to understand the different theoretical contexts in which an object can be interpreted (Rogers 2012:6).

As participants, the team looked at different theoretical contexts in which the problem could be interpreted. They decided to look at different paradigms and finally concluded that bricolage was the most suitable because it would allow the team to observe teachers in class and, where necessary, have informal interviews with them. This would enable them to construct knowledge with regard to multigenerational staff and how they work together. They would also be able to get support from other people

when necessary. The team acknowledged and showed complexities that were derived from reading multiple theories while making meaning of these.

Methodological bricoleurs use multiple tools to accomplish meaning making. They are skilful at performing a large number of diverse tasks, ranging from interviewing to intensive self-reflection and introspection. By using different methods, they are enabled to freely gather data, interpret the data and design a strategy that improves communication skills. Embracing multiple data-gathering strategies puts them in a better position to understand the problem and solve it (Denzin & Lincoln 1999:3; Rogers 2012:5). Methodological bricoleurs engage in creative approaches to inquiry and allow contextual contingencies to dictate which data-gathering and analytical methods to use with the tools at hand. Weinstein and Weinstein (1991:161) point out that these bricoleurs begin their inquiry process with an action research approach and when they realise that discourse analysis may help, they develop a more complex portrait of the phenomenon.

The team started by using a methodological approach by planning the different methods they would use in order to solve the problem of communication skills. They decided to pair the teachers as follows: a Baby Boomer was paired with any of the other generations, allowing one generation to present a lesson, followed by another and thereafter comparing the presentations. The team then allowed the teachers to reflect on their presentations, where after informal discussions were held to analyse the strengths and the weaknesses of each presentation. After that, they made use of the opportunities they had. If there were no success, they asked one of the experienced teachers to do a presentation for the group, followed by a presentation by the other generations. The team then reflected on the success of the presentation. Another method that can be used by a research team is to have a debate on the collaboration among the different groups of teachers, which is then followed by one method suggested in the debate. This could be done in order to be creative in using different methods.

Narrative bricoleurs know that all researchers tell stories about the worlds they have studied. The narratives they tell are accounts contained and mounted with specific storytelling traditions, often defined as paradigms. Narrative bricoleurs enable one to

give images of many sources they have studied. As participants, it is necessary to learn to listen in order to appreciate discourses and how they shape knowing.

When a team approaches a challenge using the narrative approach, they plan their strategy by designing stories based on the challenges on communication skills. This means they would, for example, first encourage the teaching of a poem by telling a story about the poem. Through collaboration, a teacher who is technologically proficient depicts pictures of the story using a computer. By doing so, the teacher encourages listening and develops new knowledge. This encourages two teachers to work together – one telling the story and the other depicting pictures on the computer.

Political bricoleurs know that science is power and all research findings have political implications. There is no value-free science. Embracing this, the political bricoleur develops counter-hegemony forms of inquiry that rally against oppressive social constructs and injustices (Rogers 2012:6). Political bricoleurs help to produce knowledge that benefits those who are disempowered by uncovering the knowledge that is usually silenced by the dominant research narratives. They usually question the information generated and document the effects of power on such information (Denzin & Lincoln 1999:5; Kincheloe 2004:48).

A team following the political approach would encourage the teachers to first inform the learners why many members of the community are unable to read and write, and explain why most of the Baby Boomers are unable to use computers when teaching. Then they are able to unravel the information of why most people are unable to attend school or drop out before Grade 9. The team then discusses the weakness of being unable to understand specific things. By doing so, they are able to reveal why those with power are able to dominate education.

Kincheloe (2005:323-350) studies research as connected objects to the world, unlike Denzin and Lincoln (1999), whose approach reinforces oppression and marginalisation. Kincheloe (2005:323-350) moves towards an emancipatory research approach, based on critical theories, and embraces research approaches that appreciate the complexity of the lived world.

After having discussed the different types of bricoleurs, it is necessary to indicate that bricolage affords a range of prisms that can be used to view an inquiry at various points

of research rather than the perspective provided by single research. These prisms relate to methodological, theoretical, interpretative, political and narrative aspects of research, as bricoleur researchers believe there is no single telling but each telling reflects a different perspective (Selkrig 2014:24). This therefore allows for contextual factors to dictate which methods and tools to use.

The team began their inquiry process with an action research approach and used discourse analysis to develop a more complex picture of the phenomenon. Thereafter the team continuously evaluated the subjective responses, inter-subjective dynamics and the research process itself. This was done in order to actively construct own knowledge.

2.2.5 Need and justification for using bricolage as a theoretical lens

In line with the objectives of this study, it is necessary that the appropriateness of using bricolage for the study is discussed and, furthermore, why it is used as a guide. Bricolage was preferred because it enabled the participants to create something out of nothing, use available material, whether already used or new, to create a new process necessary for a transformatory and emancipatory agenda (cf. Baker & Nelson 2005:335). This, in a way, has helped the co-researchers to make use of any available material to solve the challenge of communication for teachers.

This framework views research methods as active rather than passive, because researchers actively construct their research methods from the tools at hand instead of receiving methods that are universally applicable (Linna 2013:1). This has helped to understand the challenges a multigenerational teaching staff faces when collaborating. The team has been actively involved in the construction of new knowledge using different methods and theories.

Bricolage is multi-methodological, multi-theoretical and multidisciplinary in that it incorporates social, cultural, political, economic and cognitive dynamics and emphasises that knowledge creation is socially created by both the researcher and the participants (Bayne 2009:559). In this study, the different generations of teachers were supported to help one another, irrespective of their cultural background or age.

Using bricolage in this study, the team was not confined to one paradigm but able to embrace a multiplicity of epistemological and political dimensions. The team was able to move across all the moments of qualitative research, from positivism to critical theories, in order to identify challenges encountered when collaborating, outline solutions and apply the solutions to the problem. This helped to embrace flexibility.

It is this flexibility that enables participants to examine a phenomenon from multiple theoretical and methodological viewpoints, thereby providing unique possibilities for knowledge construction and creating opportunities for action (Denzin & Lincoln 2005:100). The multifaceted approach to knowledge and practice found in bricolage is important for the development of expert knowledge and is orientated towards the pursuit of social change (Di Domenico, Haugh & Tracey 2010:681-703; Earl 2013:15; Shaw & DeForge 2012:42).

From this discussion, it is clear that in this study, bricolage offers a powerful tool to explore and understand multigenerational collaboration. It creates a combination of resources for new purposes and refuses to enact or be controlled by limitations imposed by an institutional or political setting. It helps to set goals to allow teachers' participation in decision making and to improvise, and can also be a tactic for the mobilisation of resources.

This paradigm becomes even more suitable for this study because teachers are empowered to engineer their future through action and critical reflection (cf. Freeman 2007:486). This encourages them to participate, collaborate and get involved as equal partners in developing a strategy to improve their communication skills. Denscombe (2008:272) and Reams and Twale (2008:133) support the use of multiple methods to uncover information and perspective, increase corroboration of data and render less biased and more accurate conclusions.

Using bricolage enabled the team not to be confined to one discipline and helped to encourage teachers to disregard socially constructed limitations and, instead, combine resources to solve problems, using resources at hand. The literature indicates that using one method is not suitable, as there is a need for confrontational approaches as these help participants to move to new levels of understanding (Baker & Nelson 2005:336; Denzin & Lincoln 2011:171; Gorard & Smith 2006:61).

The participants were enabled to use multiple strategies to construct, reconstruct, negotiate and readjust knowledge concerning communication skills in order to highlight their interpretation and understanding of the phenomenon and how it had been influenced by their personal history. Once communication skills are improved, teachers are able to participate in group discussions and have secure knowledge and understanding of their subjects and curriculum areas.

Furthermore, using bricolage uncovers ways of accessing concepts without resorting to a conventional validated set of pre-specified procedures, like the positivists, that provides objectivity in terms of distance (Denzin & Lincoln 2011:172). This, in turn, provides alternative ways of analysing and producing knowledge and the freedom to use more subjective methods in gathering information (Denzin & Lincoln 2011:172).

It is further indicated by the literature that most participants have limited resources, and by using bricolage, they are enabled to combine different resources, make new combinations to come up with a strategy that solves their problem and, as in our case, improve communication skills (Fisher 2012:1020). Teachers embrace diverse epistemologies in order to make meaning and provide frames of reference for better understanding of the phenomenon under investigation (Humphrey 2013:4). Bricolage further encourages stakeholders' participation in organisational decision making, which enables participants to be committed, irrespective of scarce resources, raw materials and inadequate infrastructure (Linna 2013:1350015-2).

Bricolage was the most suitable theoretical framework to guide the study because team spirit was created and the parties were able to use whatever materials were at hand to identify their challenges and come up with a solution that helped the different generations to collaborate and improve their communication skills.

2.2.6 Epistemological and ontological position

The definitions of both concepts, epistemology and ontology, are discussed in the context of the study. Epistemology refers to the theories of knowledge. Epistemologically, bricoleurs explore how the foundation of knowledge of a given context surrounds an object of inquiry. Rogers (2012:3) asserts that those who are personally experiencing knowledge, construct it through a process of self-conscious

action. Different epistemologies are adopted in order to obtain great insights instead of using one, which limits the knowledge of understanding the research problem and solving it. In the case of this study, insight was gained on how multigenerational collaboration can improve communication skills.

2.2.6.1 Ontology and bricolage

Ontology refers to the way the researcher believes the research question can be answered most truthfully and thus involves his or her assumption of how reality should be viewed (De Vos, Strydom, Fouche & Delport 2011:309). Bricoleurs maintain that the object of inquiry is ontologically complex and therefore cannot be described as an entity (Denzin & Lincoln 2011:170; Kincheloe & Berry 2004:74); hence they have to examine the socio-economic and historical situations that had an influence in shaping the object. They believe there is no real world or truth, only the truth as told. Reality can only be known by those who experience it personally.

Bricolage embraces multiple ways of knowing and applying that knowledge in order to interpret people's relationship with the world. Bricoleurs understand that each of these ways of knowing deserves to be privileged throughout the inquiry. Furthermore, they embrace the ontology of relationships and connections and understand that culture and the self are inseparable, recognising that people, in general, can only obtain knowledge that is shaped by discursive rules and practices (Kincheloe 2004:73; Shawn & DeForge 2012:442). This creates an ontological stance that is very complex.

With an ontology of complexity, bricoleur researchers produce different descriptions of the object of inquiry, depending on the focus. An assumption of such a complex nature of reality leads to researchers embracing diverse epistemologies to get more insight in order to understand the world.

2.2.7 The role of the researcher

As a co-researcher in this study, the researcher's role was to organise a team of coresearchers, comprising teachers from different generations as well as priests, parents and other stakeholders from the Department of Education. The teachers performed multiple roles as co-researchers in the study: they had to collect data from their practice, which included learners' reactions and judgements; they acted as theorists in that they provided the needed theory in collaboration; and they were artists in that they had to express learners' voices in a visual and auditory mode. This was done with the purpose of sharing power, working with real challenges, identifying solutions and developing a strategy to facilitate in order to improve communication skills. This was also done to bring to the fore the consciousness and voices of the people with regard to social change, being on an equal footing without any dominance or prejudice.

Using this method improves a researcher's capacity to solve problems, develop skills and increase his or her chances for self-determination (Boog 2003:429). Guided by the bricolage lens, the researcher intended to maximise the limited resources available to the co-researchers and the author and engage in a creative activity that led to a new unique assemblage using multiple methods and theories (cf. Baker & Nelson 2005:330). By so doing, the researcher was able to succeed in reaching the aim of the study, which was developing a strategy to facilitate multigenerational collaboration among teachers to improve their communication skills for teaching.

2.2.8 The relationship between the researcher and the participants

In this section, the researcher indicates how important the relationship between the researcher and the participants is. This relationship is based on trust, and therefore, they are equal partners in unfolding the research problem. The intention of this relationship is to produce knowledge that is relevant to all the partners. This relationship is based on bringing together the diverse bases of all the participants' knowledge and their distinctive social locations to bear on a problem collaboratively. This study was couched by bricolage in order to address the lack of resources.

Scholars such as Garud and Karnøe (2003:278) define resources with which a bricoleur constructs his or her solutions as the mindset or reasoning process of the bricoleur him- or herself and the mediating relationship between the bricolage and the environment. This definition therefore supports and acknowledges the power the researcher and participants have and how it is changed. Coyle (2010:81) posits that participants as bricoleurs combine available resources, theoretical and philosophical understandings and methods of inquiry in new ways to illuminate the complexity of the research focus.

The participants in a bricolage work as a team, and all their activities are geared towards one goal, as these cannot be copied across the context because bricolage activities are once-off. This view is supported by Di Domenico *et al.* (2010:685) and Mahlomaholo (2009:226), who describe bricolage as stakeholders' participation in the organisational decision-making bodies, which enables the commitment of local actors, creating space for transformation and self-empowerment. Campanella (2009:5) maintains that the researcher and participants should work collaboratively as equal partners across the entire research process in order to change their position through challenging their marginalisation.

As described, all participants and co-researchers use multiple methods, different strategies and multiple theories in order to achieve the objectives of a study. Furthermore, as critical researchers, they have to be genuine, establish mutual trust and be empathic and mindful of the issues the community has. As bricoleurs, they enter the research act as negotiators and co-researchers who direct and inform the direction of the studies. They listen to all and weave meaningful solutions out of fragments of data and materials from the direct sources (Kincheloe 2005:5).

In conclusion, using bricolage necessarily implies that the researcher must be eclectic. The researcher should not restrict him- or herself to a well-defined set of parameters for measurements of relevance to the analysis. The opinions of participants must be analysed thoroughly to establish the relevance thereof to the research. This leads to another aspect of how data were collected, namely PAR, coupled with a free attitude interview (FAI) technique.

2.3 CONCEPTUAL FRAMEWORK

In order to understand the role played by multigenerational collaboration in improving communication skills, it is important to discuss the following operational concepts: multigenerational collaboration and communication skills.

2.3.1 Meaning and characteristics of generations

The concept "generation" has been defined differently by different people. The Compact Oxford English Dictionary (Soanes & Hawker 2006) defines a generation as

all the people born and living at about the same time. Palese, Pantali and Saiani (2006:173) regard a generation as an identifiable group that shares birth years, age location, significant life events and critical developmental stages. This view is supported by Lyons and Kuron (2014:139), who describe a generation as a group of individuals born in a defined 20-year period or within a period offered, who share a social experience. However, Helyer and Lee (2012:568) disagree - they regard a generational characteristic as an approximate and say that people do not fit neatly in such defined characteristics. This generational perspective enables managers to influence employee uniqueness as a source of learning, productivity and innovation and to create a role model of a positive co-worker relationship (Kupperschmidt 2000:66). Giancola (2006:33) suggests that the generational approach may be more a popular culture than social science. There is also the belief that differences among generations are theorised and occur because of major influences in the environment within which early socialisation occurs - influences that have an impact on the development of personality, values, beliefs and expectations that, once formed, are stable into adulthood (Srinivasan 2012:48). However, Hole, Zhong and Schwartz (2010:2) point out that defining generations remains specific to a given society, as the differences are shaped by politics, socio-economic conditions and cultural events.

Urbain, Gonzalez and Le Gall-Ely (2012:159) set out different approaches to defining the concept "generation", such as the demographic approach, the geological approach or the historical approach; they support the sociological approach because generational values develop from the society. However, this does not mean that every single person born within a specific time frame portrays generic generational characteristics (Koutropoulos 2011:526), as upbringing, socio-economic conditions and historical background play an important role in the characteristics that are developed. This study focuses on a generation as people born and living at about the same time and shaped by politics, socio-economic conditions and cultural events.

Having defined "generation", the study focuses on four generations – Baby Boomers, Generation X, Generation Y and Generation Z. First, the emphasis is to look at their characteristics, focusing on the way they communicate, how they incorporate technology, how they engage in learning and teaching and how they utilise the advantage of having teachers with generational differences. Four generations are

compared to see the challenges, strengths and opportunities they have in influencing one another. This is done with the understanding that each generational group has its own unique experiences, values, gender issues, tensions, problems and approaches to teamwork (Stanley 2010:848). As the study is about developing a strategy to facilitate multigenerational collaboration among teachers towards the improvement of their skills for teaching, literature that argues that the quality of teaching can be improved by an environment where various generations of teachers work in collaboration is reviewed. This includes planning, preparation, presenting and deciding on how to assess the learners.

In order to understand the necessity for collaboration, the differences among these generations are discussed because these differences create opportunities for collaboration and cooperation. However, being in the same birth period does not necessarily mean that everyone in such a group thinks alike. There are other factors that shape their values and attitudes, such as personal circumstances, regional differences and religious beliefs.

Generation X was born between 1975 and 1982 (Johnson & Johnson 2010:80). It counts and depends on itself and not the group, because it is well educated. This generation is eager to please, prefers meetings that are conversational and interactive, adapts well to change and is tolerant of an alternative life style, appreciates fun in the workplace and espouses a hard-work mentality (Zemke, Raines & Filipczak 2013:94). Generation X is ambitious and eager to learn new skills (Johnson & Johnson 2010:80), seeks a balance between work and life and is comfortable leaving the job if not satisfied (Al-Asfour 2014:59; Lyons & Kuron 2014:145). Members of this generation want ongoing training and are results-orientated. In order to work well with this generation, one has to allow for autonomous work, offer flexibility and provide clear, measurable goals (Bursch & Kelly 2014:6).

Generation Y was born between 1982 and 1993 (Johnson & Johnson 2010:102). This generation relies on technology to perform the job better. It prefers communicating through email (Barry 2014:13). Generation Y is ambitious and achievement-orientated, values teamwork and seeks the input and affirmation of others, expects to be involved in decision making and expects to be provided with feedback on a regular basis (Johnson & Johnson 2010:116). It expects a workplace that is challenging and

collaborative. Members of Generation Y may benefit from mentors who can help, guide and develop them early in their careers (Johnson & Johnson 2010:136). This generation prefers managers who coach, are positive and collaborative and provide direction. Generation Y workers rely heavily on social networks (Bursch & Kelly 2014:9), and in order to keep them engaged, they must be offered meaningful work. They will challenge authority if they think they can make a valuable contribution (Heng & Yazdanifard 2013:838; Reilly 2012:4), and they want a balance between work and personal life.

Generation Z was born between 1994 and 2006 and is the youngest generation. There are relatively few members of this generation already in the workforce, but for the purpose of the study, the generation is very significant. This generation is technologically proficient, multitalented and very creative. However, this generation is harder to teach and to be led than any other generation. Generation Z easily gets bored and is ready to move to the next job without having mastered the previous one. It is aware that it does not need formal education for its career to take off; hence it believes that it is entrepreneurship-orientated. Generation Z enjoys using mobile applications, smartphones and interactive games, has laboratory skills and enjoys storytelling (Swanzen 2018:142). Members of this generation usually encourage collaboration and share information in real time while being open-minded with regard to the differences leading to diverse generations (Shatto & Erwin 2016:17).

Baby Boomers were born between 1943 and 1960 (Johnson & Johnson 2010:80). According to Zemke *et al.* (2013:65), they tend to be optimistic, believe in teamwork, collaboration, cooperation and sharing things, such as textbooks or desks. Their leadership style is towards collegial, consensual and sometimes despotic (Zemke *et al.* 2013:77). They are motivated and excited by their work, continue contributing to their work and ensure that they train their replacements well (Johnson & Johnson 2010:42).

Given the different characteristics exhibited by the different generations, as evident from the above discussion, recognising, understanding and respecting their differences are vital because there is a great deal of variation in the manner in which they communicate; hence there is a need for collaboration. Considering these differences and similarities, there is a possibility that if these generations worked

together collaboratively, communication skills could improve. Rather than favouring one generation over another, schools can benefit from celebrating such differences and promoting the strengths of the various generational groups that comprise their workforce. By working collaboratively as a reciprocal dynamic process, the different generations share decision making regarding mutually determined goals and solutions. And, ultimately, they all share interests and responsibility (Chirozva 2013:50).

Table 2-1: Comparison of four generations

	Baby Boomers	Generation X	Generation Y	Generation Z
Communication	They speak openly and directly. They make use of body language. They believe in consensus and establishing friendly rapport.	Speech is direct and blunt. They use an informal communication style. They share information immediately.	They use a positive motivational style. They show respect through language. They are humorous.	They communicate with images. They are multitasked.
Use of technology	Face-to-face or use of the telephone or letters.	Email, blogging, tweeting, Instagram and Skype.	Multitasking, email, Twitter and Instagram.	They are technologically proficient. They make use of interactive games, Instagram and Twitter.
How they engage in learning and teaching	They use the authoritarian teaching style. They focus on interactivity, offer consistent support and praise achievement.	They use the authoritarian teaching style. To ensure that learners are engaged, they organise classroom discussions.	They prefer a broad spectrum of teaching strategies. They use materials that cater for visual, auditory and kinaesthetic needs. They prefer a relaxed learning environment. They strive for personal relationships.	They think digitally and break content into small segments. They make information graphic and use social media approaches to learning. They make use of interactive games and have laboratory skills.
How they utilise the advantage of having teachers with generational differences	They demonstrate the importance of teamwork. They need to know that they are valued.	They work with someone, not for someone. They need managers to know that they have a personal life. Managers need to provide information and not act as bosses.	They prefer to work flexible hours. They respect decisions and the solutions they develop with other people.	They believe in collaboration and sharing.

2.3.2 Multigenerational collaboration

2.3.2.1 Introduction

Collaboration takes place when individuals work together as equals towards the achievement of a common goal through shared decision making (Chirozva 2013:50; Morgan 2016:49; Nogu *et al.* 2014:93; Rinio 2018:45; Rock 2008:9; Shakenova 2017:38; Wilson & Dobson 2008:21). Collaboration has been described as an important element for teacher development (Dixon 2014:33; Hargreaves 1994:184). For Friend and Cook (2010:483), collaboration is more than working together; it is transformation and distributing resources and responsibilities for planning, conducting and the evaluation of activities and goals. Key elements of collaboration are shared resources, accountability, valuing personal opinions, parity, mutual goals, expertise and shared responsibility in decision making.

Before multigenerational collaboration can be successful, there are various factors that must be considered. It is vital to take into account factors such as the personal, cultural, economic and political conditions of the school and its individuals in collaborating. Esler, Godber and Christenson (2002:389-412) point out that the school as a dynamic system is composed of multiple individuals and is influenced by multiple forces. The school personnel acquire beliefs, values and expectations that are affected by numerous personal, cultural, economic and political influences. The following are personal and professional factors that may influence the personnel:

- Openness to different opinions, volunteering, motivation and positive relationship with colleagues
- Openness and respect
- Shared beliefs and understanding
- Trust and open communication
- A positive attitude
- Observation of lessons presented by colleagues
- Classroom collaboration

These beliefs, values and expectations evolve over time and influence interaction with other teachers. When different generations collaborate, their cultural, economic and political influences have to be borne in mind. In addition, each school has an identity

that makes it unique, and the organisation may influence how its teachers interact among themselves. The following factors exist in a school:

- Common goals
- Holding formal and informal meetings
- Sharing with colleagues

Community factors that influence the interaction among teachers are difficult to isolate, as one cannot fail to notice the powerful influence of the community in shaping individuals. The community system posits its own set of norms, values and expectations regarding collaboration. Besides, these behaviours, attitudes and values may be transmitted to different generations. These may, for instance, be religious or political in nature and may in the end have an influence on how different generations collaborate.

There are several benefits that can be derived through multigenerational collaboration. Collaboration helps in sharing and learning a team culture, which helps to build new knowledge. This fosters critical thinking skills, enhances empowerment and implements hands-on problem-solving skills (Mabokela & Mawila 2004:375; Mandel & Eiserman 2016:76; Peters 2000:168; You & Craig 2015:519). Moreover, collaboration assists in monitoring the effectiveness of the appraisal system (Education Labour Relations Council 1995:5; Middlewood & Cardno 2001:98). This restores quality schooling and develops the professional quality of the teaching force, including content and pedagogical knowledge. It builds self-confidence, motivates people when they achieve their goals and receive feedback, facilitates communication and encourages personal identification with a particular subgroup. Effective collaboration among different generations of teachers is valued by the employers because group projects can be a valuable experience when teachers are able to apply their knowledge and develop their communication skills (Bakir, Humphreys & Dana 2020:79; Gable & Manning 1997:1; Posthuma & Al-Riyami 2012:45).

Collaborative teaching increases active learning by learners, predicts a high pro-social impact and pro-social motivation and decreases labour turnover. It allows teachers to develop those skills they can apply in the job setting, such as computer skills, and enhances interacting with individuals from diverse backgrounds. This provides them with an opportunity to participate in a variety of activities and to share their information

in real time. It also holds great promise for improving educational outcomes. Most educational policies seek to foster teacher collaboration in order to bring about improvement in teaching and learning and learner outcomes (Chen, Elchert & Asikini 2020:530; Johnson 2013:33; Yada *et al.* 2020:540). Several studies (e.g. Adjibolosoo 1995:53; Chadwick 1999:1-6; Gursoy & Kubra 2018:175; Mel & Mel 2006:65) have pointed out that teacher learning can be improved through collaboration with other teachers and sharing ideas and resources, such as books. It can, therefore, be concluded that collaboration is very important for teacher performance.

2.3.2.2 Theoretical foundation of collaboration

Collaboration is influenced by different theoretical perspectives. According to the sociocultural perspective, effective collaboration involves "the collaborative construct of knowledge and the transformation of shared practice rather than the transmission of knowledge and dissemination of good practice" (Seo 2014:337). The second is the social network perspective as represented by the Connectivism theory. According to this theory, education in collaborative e-learning environments focuses on information in networks because it is through this practice that information and activities are shared among the largest number of participants (Al Desonky 2015:160; Alzain 2018:2; Couros 2010:110). Social networking motivates teachers, enhances team spirit, promotes knowledge exchange and encourages helping one another. Having looked at these theories, they do not create rigidity for teachers, as they can belong to anyone. As the emphasis of the study is on generational collaboration, this construct solves teachers' characteristic of being isolated and lonely by providing a group of people working together to achieve a common goal.

2.3.2.3 Challenges inhibiting effective multigenerational collaboration among teachers

Teachers struggle with generational differences in the workplace because of differing mindset and communication styles as they have been born in different eras (Deal 2007:27). Baby Boomers speak openly and directly and make use of body language; Generation X speaks directly and bluntly, using an informal communication style; Generation Y uses a positive motivational style; and Generation Z communicates with images. Multigenerational communication has been found to pose both ethical and

methodological challenges. Communication skills have proven challenging for these generations, but developing the skill to view generational differences through another lens allows them to view their differences as strengths that enhance quality and productivity and maximise the contribution of all (Abrams & Von Frank 2017:61; Sherman 2006:1; Whitcare 2007:67).

Using communication strategies that work effectively with the different generations is a challenge, but if there is sensitivity to communication differences and preferences, unique solutions can be created. For instance, face-to-face or written communication is more effective for Baby Boomers than the use of technology, while technology appeals to Generation Y (Hershatter & Epstein 2010:211-223), and millennials who have grown up with instant messaging and cellular phones would like immediate feedback and get frustrated when their messages are not answered (Sacks 2006:75).

Intragenerational friction is aggravated by new technology and work patterns because some teachers fail to meet the 21st-century demands for the use of technology. Continuous global changes force the present cohort of teachers to change and improve their skills in order to meet the demands of the 21st century. As such, teachers are required to have creative and critical thinking skills in order to communicate with others.

The 21st century has brought technological knowledge that requires new understanding, new ways of doing things and ample opportunities at the workplace. With challenges such as Covid-19, teachers of today are expected to have more than only traditional knowledge but also attitudinal skills that enable them to engage in collaborating and communicating problem-solving and critical thinking skills. This has a negative impact on the quality of teaching and learning (Alcázar, Fernández & Gardey 2005:226; Mestry & Bodalia 2015:2; Mishra & Yadav 2013:51; Snape 2017:1). Teachers who have been born in different eras fail to reflect a positive attitude towards problem solving and shared decision making (Breckler & Wiggins 1989:418; Evans 2017:9; Ostrom 1989:311). This attitude affects every aspect of their lives, from the way they solve problems to how they collaborate and communicate at work (Fritz 2008:21; Flynn & Stack 2006:31).

There is a lack of mutual respect among teachers of different generations because they have their own sets of values and are unimpressed by authority (Lyons & Kuron 2014:145). This results in teachers being unable to participate in formal speeches, while at the same time, they expect feedback from others (Lancaster & Stilman 2005:31). Henneman *et al.* (1995:103-109) and Daniels and Khanyile (2013:959) are of the opinion that a lack of mutual respect breaks down communication among employees and deters them from communicating important information and achieving goals.

A shortage of resources in schools affects teacher collaboration and discourages them from pooling their limited resources, leading to failure to achieve their common goal. Shortages of books, technological equipment and human resources are common. Most teachers are not qualified to meet the demands of the 21st century. Some teachers feel inferior because of their substandard qualifications, resulting in their failure to have one-on-one conversations or participate in group discussions and formal presentations because of their lack of knowledge of the subject matter. Huge infrastructural differences pose a challenge to multigenerational teaching personnel, leading to their poor communication skills. This has been highlighted by, inter alia, the following headlines in the South African media, painting a devastating picture of South African schools: "Poor facilities cripple teaching" (Macupe & Hawker 2012:online) and "Rich school, poor school, the great divide persists" (Veriava 2012:online). In Bhisho Court, a case brought by Equal Education and the Legal Resource Centre against the Department of Basic Education, often referred to as the "Mud Case" (Case 504/10), shows 24 schools across the country as places where learners are constantly fighting, not only for a decent education but in some cases for their lives as well. Such conditions hamper effective communication among teachers as well as learners. A serious constraint on quality educational output has been identified, namely that it is not possible for a teacher to produce quality results from learners in a "mud school" environment or where learners are without basic needs, such as toilets and water (Mason 2013:407; Sedibe 2011:130; Spaull 2013:437; Van der Berg 2008:145-154.

Generational differences can lead to frustration, conflict and poor morale, while the same differences can lead to increased creativity, productivity and collaboration. Oxford and Nyikos (1997:441) posit that some teachers experience anxiety or

confusion about collaboration. On the other hand, Jacobs (2010:227-237) supports the notion that a lack of confidence, teaching experience, power dynamics, demarcated roles and responsibilities can affect collaboration. Other factors, such as individualism in teaching, professional identity, time available for teaching, time spent on administrative work and differing pedagogical orientations can affect collaboration among teachers. Although these factors may impair collaboration among teachers, this problem can be solved if collaboration strategies are adopted.

Multigenerational collaboration is sometimes complicated by perceptions of knowledge and power. Computer-literate teachers may view themselves as computer specialists with little to offer to other teachers, resulting in unwillingness to learn from one another. The same problem may be encountered with planned collaboration, which may lead to ineffective learning environments in cooperation (Bouchard & Stegmoller 2019:3).

Failure to reflect a positive attitude towards a problem may cause communication problems. People's attitude affects every aspect of their lives, from the way they solve problems to how they communicate at work (Breckler & Wiggins 1989:418; Fritz 2008:21; Ostrom 1989:311). Research by Flynn and Stack (2006:31) on nurses and clinicians to determine the role of perception has revealed that what people learn from their successes and failures is related to their attitude. A positive attitude creates high frustration tolerance, encourages participation by others, controls impulses, accepts responsibility and makes critical decisions (Fritz 2008:25). Failure to display a positive attitude causes high levels of frustration, which finally leads to people failing to accept responsibility and participate in the activities of the organisation.

Team teaching not well organised creates a challenge in terms of communication skills. Different generations use different technologies to communicate and do not appreciate other ways they are not used to. Generation Y relies on technology, values teamwork and expects to be involved (Anrig 2013:55). Once members of this generation are not involved, they lose interest and quality output is not achieved. Baby Boomers use face-to-face communication and have been the teachers of Generation Y, but somehow these generations regularly find themselves in conflict, especially when it comes to communication.

2.3.2.4 Effective multigenerational collaboration strategies of teachers

Dixon (2014:32-33) describes several models of collaboration that have proven effective in making schools successful, but for the purpose of this study, the focus will be on team teaching, station teaching, training and development, reverse mentoring, recognising and appreciating differences and the professional development programme. Friend and Cook (2010:25) describe that if two or more teachers share the responsibility for a group of learners, usually within one workspace, they are bound to succeed. For them to succeed, they must agree to mutually developed goals and co-teaching.

The various models of collaboration are briefly discussed below.

(a) Team teaching

Team teaching involves using the experience and commitment of senior staff members and harnessing the enthusiasm and knowledge of junior personnel. Team teaching has been proven successful to those who use it. According to Buckley (2000:5), team teaching is a technique that shifts the role of instruction from an individual to a team and encourages learners to take more active roles in learning. This can be in the form of parallel or station teaching. It promotes dialogue, increases participation and improves feedback (Anderson & Speck 1998:673-674). Using teams has the advantage of individual teachers who are willing to commit to high levels of effort in their learning, with members of the team being able to solve difficult and challenging problems (Michaelsen, Knight & Fink 2002:3). This means if different generations of teachers work together as a team, they can accomplish very complex and challenging tasks. Team teaching can be in the form of parallel or collaborative teaching.

• In parallel teaching, each teacher instructs half the group, addressing the same instructional objectives. The four generations will address different groups of learners, addressing the same instructional objectives. This will enable the other teachers to observe and learn from them. The same strategy can work for a multigenerational teaching staff. If they observe one another in class, they will be enabled to reveal and rethink their pedagogical philosophies and gain some handy tips and tricks that might otherwise not have been learnt

(Conderman 2011:222). It may also increase mutual respect. This enables them to engage in quality conversation and, in some way, support one another. They are able to plan and solve problems together. In addition, they share teaching strategies and resources and are able to evaluate themselves before and after lesson presentation (York-Barr, Ghere & Sommerness 2007:315).

Collaborative teaching requires the parties to build strong foundations through shared understanding, values and beliefs (Mackey, O'Reilly, Fletcher & Jansen 2017:101). The parties should first establish structures and systems that support their strategy. This strategy allows learners to be grouped according to activities in which they engage and the way they use technology (Mackey et al. 2017:102). Teachers are able to communicate with one another, thereby developing skills such as communication, collaborative and interpersonal skills.

In order for teams to be successful, it is necessary to break down the generation "silos", because people usually gravitate towards others of the same age because of common interest and experience. The four generations of teachers would benefit if they demonstrated respect, with each member bringing in a unique perspective to the team and considering what is common to them.

Different generations of teachers have different ways of doing things. Valuing individual experiences and sharing them with team members make a team strong. The various generations have to accept these differences and build trust. Failure to meet these requirements may lead to disagreement among them, and more time may be needed to develop trust. In addition, teachers may feel they are losing their autonomy, and there is a decreased ability to be flexible to a teachable moment (York-Barr *et al.* 2007:318).

It is necessary to recognise that one teacher's weakness may be another's strength. Baby Boomers may be placed with millennials, as Baby Boomers pay acute attention to detail, while millennials have a creative mindset, drive for efficiency and positive work culture. Baby Boomers are more confident within personal interaction, while millennials prefer digital channels. Baby Boomers are reserved, Generation X favours and Generation Y prefers a collaborative approach, while Generation Z value personal interaction. Baby Boomers value traditional instructor-led courses and Generations X, Y, and Z prefer collaborative and technologically driven courses. Generation Y and Z

prefer continuous feedback, while Baby Boomers and Generation X are satisfied with minimal feedback but prefer an open-door policy. To succeed, all the generations should be allowed to be involved, and they all have to feel important and accepted.

(b) Station teaching

The instructional content is divided into two parts, for example vocabulary and content. Then the groups switch, so that all learners receive instruction from each teacher. Joint planning helps these teachers coordinate what they have to teach and improves the quality of their lesson. In addition, they learn communication skills from one another. This offers a comfortable environment in which to grow, because it enables teachers to learn from one another professionally (Mandel & Eiserman 2016:75). This type of teaching has the advantage of promoting diversity, encouraging taking risks and providing emotional support. Helms *et al.* (2005:30) point out that learners who lack communication skills, written or orally, benefit from this form of teaching, which then supports the notion that multigenerational collaboration can improve communication skills and spark learners' interest and learning outcomes (Benjamin 2000:193).

Teachers pool their resources together in scholarly presentations, allowing them to be exposed to the strengths of the varied viewpoints. Pooling resources also allows them to integrate material from different disciplines and remedy the problem, even though they lose spontaneity and have to compromise in order to reach consensus (Dugan & Letterman 2008:10; Letterman & Dugan 2004:77).

(c) Training and development programmes

Training and development are underpinned by the development of a teacher. The training needs of teachers should focus on developing the image of the teacher emphasising the theoretical understanding of training (Elliot 2012:15). First is the image of the teacher as an intelligible person, or the image is interpreted according to the outcomes of professional learning, or lastly, the training should be based on the needs assessment made by the senior members of staff capable of controlling and monitoring it. Hargreaves (2012:87) is the opinion that it should be done to improve the school as an efficient and effective productive unit. Bernstein (2015:1) indicates that an informed teacher is the most important factor in a school and, as such, influences how the learners perform.

Principals should get involved in the training of teachers. They need information on how to effectively supervise and motivate a multigenerational workforce and also need assistance in the development of interpersonal skills. They need to be well conversant with the preferred working styles of different generations and how they receive and react to feedback. Lengthy meetings may become boring to Generation Z, while it could suit Generation X. Training on the value of diversity and how to work together effectively could benefit all the generations. Development of opportunities that allow them to learn and take on more rewarding work would especially benefit millennials. For communication skills to improve, participants have to understand the training needs of the different generations and provide assistance where needed. It is necessary to share the big picture of the school by holding regular staff meetings to get contributions from all the staff members. Consequently, the success of positive professional development depends on the link between teachers' professional development and the objectives the school intends to achieve.

(d) Reverse mentoring

Reverse mentoring acknowledges the equal status of partners rather than a hierarchical structure. According to Greene (2005:34), it encourages sharing knowledge, with the mentee being focused on learning from the mentor's technical or content expertise, which would encourage members to share responsibility. On the other hand, emphasis is placed on the development of the mentees' professional and leadership skills and commitment to supporting shared goals and mutual learning (Marcinkus Murphy 2012:556).

Through mentoring or reverse mentoring, generations are paired – a less mature individual with a more mature professional (Sanner-Stiehr & Vandermause 2017:105). This enables the different generations to communicate with one another and be able to use technology. This also helps multiple generations develop a better understanding of one another and the unique qualities they bring. This then facilitates the transfer of knowledge from one generation to the other through one-on-one mentoring sessions, group mentoring or discussion panels where presenters provide information to a group of people (Fraone, Hartmann & McNally 2007:7; Mohr & Spekman 1994:138). Once

this happens, the different generations are able to participate in group discussions and meetings and be able to give formal presentations. Through watching others, presenting their knowledge of the subject is also improved.

Reverse mentoring is important to curb several challenges faced by newcomers to teaching caused by teachers working in isolation from their well-established colleagues. Ingersoll (2008:47) is of the opinion that newly appointed teachers are usually left alone to succeed or fail in the confines of their own classrooms. There is failure to provide an environment where they can learn how to teach and survive as teachers, as well as failure to enhance their skills. Teachers are unprepared in their expectations of what they would encounter in the classroom (Arends & Phurutse 2009:2), and they struggle to settle into the practice of the school classroom (Petersen 2017:3). Steyn (2004:84) believes that an organisation cannot expect newly appointed teachers to do their best work and reach goals before they have adapted to their environment.

Research undertaken by Van Vreden (2016:124) in schools in Mpumalanga found that new teachers needed guidance and support during their integration, which could either be by manuals or supervision by dedicated mentors. This means different generations of teachers need guidance and support from a mentor who should have regular communication with them to succeed (Ingersoll 2008:49).

It can therefore be deduced that when there is no link between induction and the early professional development of teachers, where individual needs are addressed, and when there is no effective management of the induction process, learning will not be effective (Algozzine, Gretes, Queen & Cowan-Hathcock 2007:139; Bubb, Earley & Totterdell 2005:271). This problem can be solved by reverse mentoring, which can be seen as a two-way street, where both teachers (experienced and inexperienced) mentor each other. This helps to build relationships, foster better intergenerational collaboration, enhance diversity initiatives, drive innovations and create an opportunity for learning for both participants (Kulesza & Smith 2013:21; Marcinkus Murphy 2012:556).

Different types of reverse mentoring exist: (a) Different generations of teachers may engage with instruction and bring best practices that can be applied. In this instance,

teachers generate the best practice; (b) As a group of teachers, they modify their practices accordingly; and (c) Teachers are active in their own learning and are engaged in inquiry and the construction of new insight through collaborative learning in groups (Rhodes, Stokes & Hampton 2004:3).

The value of such a partnership is that everyone benefits from the exchange of knowledge. Millennials want their voices heard immediately, whereas this can also serve as a tool for senior organisational members to acquire technical skills and learn about current trends. Likewise, junior employees are given insight into the higher levels of the organisation and enhance their understanding of the organisation (Stanley 2010:849).

There are, however, several challenges to reverse mentoring. According to Nundulall and Dorasamy (2012:129), a lack of sensitivity to individual differences, the structural and role reversal requirements in particular, may pose a serious challenge to reverse mentoring, as do a lack of trust, cross-generational differences and infrequent interaction. Group members sometimes fail to endorse one another's talent through offering opportunities to train and coach one another (Stanley 2010:849). Moreover, they may fail to communicate and build trust (Simonds *et al.* 2008:57), fail to work towards achieving the common goal by reducing stereotypes and conflict (Giancola 2006:39; Norman *et al.* 2005:273; Rigelman & Muller 2012:979) and fail to develop a better understanding of one another and the unique qualities they bring to the table.

Different generations of teachers may fail to work together as a team. For instance, Baby Boomers may fail to work with millennials, who, on the other hand, receive greater insight into the organisation from both macro- and micromanagement perspectives. They may fail to help Generation X with technology, which is intimidating but a necessity, and also find it difficult to explain to the other generations how to use a new programme or navigate a website. In turn, the same generation may be assisted with tolerance and teaching skills in order to become effective teachers (Hershatter & Epstein 2010:215). It is believed that mentoring is an effective training method. The two generations may work together to help each other. In the end, both will be empowered.

(e) Recognising and appreciating differences

In order to improve mutual respect, leadership has stressed the acknowledgement of different cultures and generations (Ferri-Reed 2013:13). This strategy begins with understanding cultural diversity, developing awareness of individual culture and taking into account the special needs of individuals (Amin *et al.* 2011:119; Huff *et al.* 2014:1). Glass (2007:99) asserts that Generation Y, for instance, feels honoured when detailed instructions are given, when they are praised and when a personal relationship is built with them. Using multiple modes of communication to effectively reach employees, including memoirs, emails, newsletters and the company intranet, acknowledges the differences, which easily creates a positive image for the organisation. Neither of the generations should feel left out.

(f) The professional development programme

Business Dictionary (2020) defines professional development as a process of improving and increasing the capabilities of the staff through access to education and training opportunities in the workplace, through outside organisation or through watching others perform the job. This helps to build and maintain the morale of staff members, has the ability to attract quality staff to the organisation and ensures that the staff members continue to be competent in their profession.

The Critical Friends Group is a professional development programme that seeks to improve learning through teacher collaboration and inquiry. The Critical Friends Group was initially launched by the Annenberg Foundation and supported by a network of people, schools and organisations that were committed to bringing about change in schools (Norman *et al.* 2005:273). The programme entails a group of six to ten members committed to learning on a long-term basis. Each group is facilitated by a coach in terms of meetings, helping the group, solving problems, discussing professional literature and observing one another teaching (Norman *et al.* 2005:274). The programme helps beginner teachers as well as experienced teachers to examine teachers' and learners' work by engaging in an investigation-orientated practice based on self-discovery and professional conversation.

This programme would be suitable for the four generations collaborating, and each generation would benefit and learn different communication skills while observing one

another. Where there is a lack of understanding, group members would support one another to solve their problems. If the school invests in a variety of educational activities, that would help introduce employees to different generational preferences. Mutual understanding is fostered in an attempt to reduce misunderstanding and miscommunication. Different generations of teachers are able to work together by learning from one another (Cahill & Sedrak 2012:13).

2.3.2.5 Conditions that ensure effective multigenerational collaboration among teachers

Conditions for successful collaboration include the education of the staff about the differences in generational attitudes and values through the human resources policy that reinforces tolerance and respect for different generations (Egri & Ralston 2004:55; Kupperschmidt 2006:14). Such training should be done regularly to build a spirit of togetherness among the staff members. Schools should develop policies that guide teachers in collaboration. These policies should be discussed regularly in order to enforce mutual respect. This can be done through, for example, the use of games, paring teachers according to different generations.

Awareness training on communication competency should be given where generations are made to understand that they can learn from one another to embrace mutual team goals (Glass 2007:98-103; Kaur & Virma 2011:12). Such training tends to emphasise a need for positive commitment and support by leadership, which helps instil the sharing of responsibilities. Management should arrange conversations where they alternate different generations as chairpersons and organising meetings. This would enable them to observe how each generation communicates. Communication differences should be dealt with in such a way that it promotes creativity and innovation. This can succeed if there is a generational trail that can reveal the uniqueness of each generation. Effective communication should be done in a way that motivates the various generations (Hannam & Yodi 2011:90). When communicating with Baby Boomers, communication should be interactive and parties should have face-to-face discussions because they usually see the relationship and results as intertwined. Different generations tend to value different communication styles, team structures and job incentives. Understanding what they value and what motivates them makes it easier for them to communicate (Cedaka 2012:41). When a Generation Y

individual sends a message, he or she expects an immediate response and places more value on the speed of the response than the accuracy thereof. Generation X prefers direct and straightforward communication, and millennials prefer communication that reflects a positive tone.

Team teaching is also critical for the success of the strategy to facilitate multigenerational collaboration because it enriches and gives more confidence, support and ability to share responsibility and validate one another's competencies (Greene 2005:38). Each generation is valued for the strength it brings to the organisation by addressing the needs with regard to individual and organisational communication skills (Carlson 2005:A34-A37). This is achieved by arranging the different generations presenting a lesson together – one generation presenting an aspect using his or her own method, while the others are observing. In the end, these generations discuss the methods used and finally agree on the method they will use.

It has also been found that encouraging reciprocal care and mutual responsibility contributes to the success of collaboration (Ellerbrock *et al.* 2015:49). Once these conditions that ensure the successful implementation thereof are met, multigenerational collaboration improves communication skills. But if not, they hinder the successful implementation of the strategy. The co-researchers have to convene the different generations of teachers and engage them in activities that ensure that everyone has an important role to play in improving communication skills. This would involve analysing their strengths and weaknesses instead of stereotyping those they believe are weak. The success of the strategy depends on everyone getting involved.

Building awareness that the different generations bring different ideas and challenges should be considered. This is done in order to bring everyone to be part of the team. It is also necessary for the generations to validate one another's experience: Generation Y and X can be used for Internet-based information; Generation Y can be used for any multitasking projects and mentoring or reverse mentoring for all the generations. These generations have to appreciate and validate the knowledge each generation has and work as a team in order to transfer this knowledge. Sirias, Karp and Brotherton (2007:751) are of the opinion that cross-generational work teams can foster team building among generations, increase team contribution and sharing responsibilities and improve communication skills.

Mutual respect among the generations may improve communication skills and reduce multigenerational conflict. This notion is supported by Cooke, Barnes and Roberts (2003:305), who say that mutual respect is an important way of achieving harmony and peace. DeLellis (2000:38) stresses the role of respect in professional relations and maintains that respectful communication has many faces – respect as active listening, respect as assertive speech, respect as avoidance of passive-aggressive communication and respect during conflict situations. Once there is mutual respect, these generations become close, are able to pool areas of expertise together and are able to have one-on-one communication.

Boysen, Daste and Northern (2016:336) support the need to change how one educates the next generation by adapting teaching methodologies to mobile delivery to enable learning. Among the changes that benefit them is adapting mobile devices as a preferred communication method. This involves using social networking and adding games and interactive videos to the curriculum.

2.3.2.6 Factors that hinder successful implementation of the strategy to facilitate multigenerational collaboration

With different generations of teachers at one institution, there are times when they have to work side by side or contribute to the development of the institution as members of a group. In this situation, information has to flow and so, communication between teachers and learners has to take place. However, at times it is a challenge. Conflict has become common in such scenarios because four generations have entered the teaching profession. The generational differences affect the way teachers communicate with learners, which ultimately has a negative impact on the learners because learners' behaviour is modified by effective communication (Kabila 2014:40).

Factors such as a lack of support by leadership may affect the implementation of the strategy to facilitate multigenerational collaboration (Heck & Hallinger 2005:230). Once the leadership lacks interest, collaboration does not take place. This is evidenced by the leader not supporting any of the collaborative strategies or having excuses when he or she is supposed to bring into effect any support. This clearly indicates that when the principal and his or her team do not support the collaboration of different generations, the strategy will never succeed. For instance, if the school

management team (SMT) comprises mostly the older generations, it may not favour the use of technology. This will, in turn, cause Generations X, Y and Z not to be part of a collaborative strategy.

A lack of commitment and cooperation among the staff members may suppress the successful implementation of arranged training (Tella, Ayeni & Popoola 2007:2). This usually happens when the staff members do not identify with the goals of the organisation and do not make an effort on behalf of these. The success of the strategy depends on the commitment of all. If there is stereotyping and a lack of acknowledgement of the work done by one generation, other generations may not cooperate. Failure to embrace the differences and collective strength of each generation will collapse the implementation of the strategy.

It has also been established that communication apprehension, either cultural or environmental, discourages employees from getting involved in training (Gardner *et al.* 2003:333; McCroskey 1977:78). Once the generations have grouped themselves according to their cultural beliefs or environmental heredity, chances are they use the type of communication that suits their culture, with the exclusion of that of other generations. Some words, such as "moshemane" or "inkwenkwe", have different cultural meanings in different cultures. Using these words may cause some generations not to collaborate.

Organisational goals that are not well defined or communication that is not properly managed may result in employees not taking training seriously (Coetzee *et al.* 2014:518). This is mostly true in organisations where a top-down approach is followed without involving the employees. Usually, the result involves a breakdown in communication and employees not getting involved in the decisions made.

Team teaching that is not organised well and managed properly creates antagonism and resentment among employees. This is true especially with members of Generation X as they believe in themselves as individuals and not the group because they are educated, whereas Generation Y values teamwork. The pace of interacting and focusing on team building is fast Team teachers should all be prepared to do the work, otherwise it will not work. Powel and Kusuma-Powel (2015:66) also point out that infrastructural differences and technical and adaptive challenges among teachers may

stifle the implementation of the strategy to facilitate multigenerational collaboration. It is sometimes difficult for some teachers to use technology. Generation Z is multitalented and uses technology with ease but easily gets bored. Some schools lack technological devices but have Generation X, Y or Z among their teaching staff; this could create a problem because these generations may get bored when there is no technology for them to use in their teaching. In addition, collaborating with Baby Boomers among the staff may also be a problem as there is nothing to learn from one another.

2.3.2.7 Indicators of success when collaborating

Teacher collaboration is believed to relate to learner performance. It holds great promise for improving educational outcomes. Most educational policies foster teacher collaboration in order to bring about improvement in teaching and learning. Where there is collaboration, there are logistical benefits such as teachers helping one another when necessary. Observing one another in class helps them reveal and rethink their teaching philosophy and gain teaching tips that might otherwise not have been learnt, while at the same time they become closer and mutually respectful (Chen et al. 2020:515-532; Jacobs 2010:235; Oxford & Nyikos 1997:441; Starke-Meyerring & Andrews 2006:30; Yada et al. 2020:535).

Collaborative teaching allows teachers to develop skills they can apply to their jobs. There is increased satisfaction of sharing knowledge and learning from one another (Lancaster & Stillman 2005:31). Stereotyping and conflict are reduced and respect is developed among the teachers (Pinnock *et al.* 2013:169). Teachers work together and are able to share their successes and failures (Shrifian 2011:1169). They are able to share knowledge and skills in real time, thereby enhancing interaction with other teachers from diverse backgrounds (Johnson 2013:33).

Effective collaboration encourages sharing resources, goals and responsibilities. It also helps to reduce power differentials and to create life in a particular community. Previous studies have emphasised the role of partnerships as a way of overcoming a lack of resources and appropriate capabilities (Giancola 2006:39). Where there are partnerships, all teachers have access to rich multimedia content, which motivates them to use resources efficiently and work as partners who share responsibility for

planning and teaching. Assessing the progress of learners and developing appropriate communication skills are top priorities to them (Kalin & Steh 2016:2; London & Hart 2004:355).

Collaboration is valued by employers because different generations of teachers can engage in projects that enable them to acquire valuable knowledge and develop several skills in a positive environment. It can also be assumed that once a positive learning environment is created, they are enabled to participate actively and achieve success. This allows a multigenerational teaching corps to improve its listening and speaking skills and encourages openness, sound relations, support and mutual trust (Bakir *et al.* 2020:85; O'Neil *et al.* 1997:8-9; Rinio 2018: 45; Wallace, Anderson & Bartholomay 2002:360).

It is evident that a number of values are derived from collaboration. It helps teachers reflect a positive attitude towards problem solving, involves mutual goal setting and promotes a forum of shared learning for teachers, while it also helps them to develop a shared culture that enables them to share knowledge. The most significant advantage is that it serves as a vehicle to bring these generations with diverse backgrounds and interests together to share knowledge and skills that will help to improve their communication skills.

2.4 IMPROVING COMMUNICATION SKILLS OF TEACHERS

2.4.1 Introduction

The word "communication" is derived from the Latin *communicare* meaning message (Sharma, 2017:259). According to the Merriam-Webster Online Dictionary (2019), "communication" is defined as the act or process of using words, sounds, signs or behaviours to express or exchange information or express ideas or thoughts and feelings to someone else. Effective communication includes not only exchanging information but also understanding the emotions behind the information. It combines skills such as listening, the ability to manage stress, the capacity to understand one's own emotions and the persons with which one is communicating (Starke-Meyerring & Andrews 2006:25-49). It is the act of transferring information from one place to

another, which involves the voice, printed or digital media (e.g. websites), visual forms (e.g. maps and charts) or nonverbal forms (e.g. gestures).

Written and spoken words are fundamental to communication; however, one also uses gestures and body language as part of the message. This includes one-on-one conversations, participating in group discussion or meetings and giving formal presentations together (Anrig 2013:55). Sanders and Wiseman (1990:348) have labelled effective communication as a necessity for classroom learning.

Communication is fundamental to the human existence. It is believed that there is a link between the quality of communication and the quality of life. Communication is a core skill for effective teaching because without appropriate communication skills, teachers' knowledge is easily wasted (Hunt, Simonds & Cooper 2002:81-94). Communication has been overlooked as an important component of teacher education. With today's technological development, communication does not need face-to-face interaction, as social networking makes it real-time interaction.

Communication skills differ from communication because they involve the ability to convey information to another effectively and efficiently in a way that means things are understood and objectives will be achieved (Business Dictionary 2020). Communication skills are about transmitting and receiving messages clearly and being able to read the audience. These skills reflect the persistent and powerful role of language and communication in society (Holiday 2013:18).

Teaching involves conveying a message that has to be understood and interpreted by learners, in which feelings and thoughts are expressed. When the teacher has effective communication skills it brings about a change in behaviour on the part of the learners (Kabila 2014:40). Communication skills therefore form an integral part of the teacher's job because they have to form cohesive relationships with learners. The manner in which they communicate information to the learners is as important as the message being communicated.

Communication skills are crucial in all aspects of life. Communication is important for the personal as well as professional success of teachers because it helps them carry messages across. Nwogu (2000:67) maintains that communication skills are necessary for academic and professional success, since without the ability to listen,

understand, analyse, comment and write, teachers would not be prepared to meet the requirements of teaching. She believes that a major obstacle to effective teaching is the inability of teachers to communicate effectively.

The literature supports the importance of communication skills. According to Shukla (2013:1), four skills are necessary for teachers: writing, listening, speaking and reading. The way a person communicates reflects the type of work he or she does (Shukla 2013:1). According to lyamu and Isequan (2009:2), it is not enough for a teacher to be good in the subject areas. He or she should also be able to communicate that knowledge to the learners, otherwise the instructional process is worthless. This notion is supported by Morreale, Osborn and Pearson (2000:1), who state that competence in oral communication (speaking and listening) is a prerequisite to learners' academic and professional success in life, because teachers deliver the content orally in class.

Communication skills help address diversity in the classroom and assist in the day-to-day functioning of teachers (Hunt *et al.* 2002:89). Teachers are able to deliver the subject matter to a diverse group of learners if they are competent in communication. Communication skills are essential skills for learning and teaching; hence it is imperative for all teachers to be able to communicate well (De Klerk 2002:21). Outside the school, competence in oral communication also contributes to an individual's social adjustment and participation in satisfying interpersonal relations (Caspe 2003:116). It is believed that good communication skills are required for most occupations (Caspe 2003:116).

Communication skills are vital to the development of teachers as a whole. They enhance relationships and improve critical thinking; hence teachers need to take special responsibility regarding their soft skills, as these have a major effect on the way the learners in their classrooms learn (Schulz 2008:15). Such skills improve the educational enterprise, enhance classroom instruction and are vital to successful collaboration. Through collaboration, the various teachers are able to think critically (Vertino 2014:1). In addition, communication skills help develop those skills that shape our social and political lives and further enhance cross-cultural understanding. They also assist in improving critical thinking, developing leadership skills and gaining power.

It is further understood that communication skills play a very important role in interpersonal relationships, which contribute to individuals' social adjustment and sound psychological development. The mutual needs and deciphering of the message by the sender and the recipient contribute to effective communication (Erozkan 2013:742). Communication in the workplace helps individuals to communicate in groups and teams, with persons of diverse backgrounds and engaging in problem solving. This has the effect of teachers and school principals trusting one another, reducing unnecessary competition within different departments and managers being able to correct their mistakes (Williams & Cartledge 1997:30).

Competence in oral communication, speaking and listening is a prerequisite for the academic performance of learners, as well as the personal and professional success of teachers (Morreale *et al.* 2000:3-4). This becomes a problem when a teacher cannot articulate what he or she knows, as this can be interpreted as not having the necessary content knowledge. Oral communication skills are considered to enhance careers and are the biggest factor that determines the success of the learner. The interaction between the teachers and the learners is a critical process in any school. Sanders and Wiseman (1990:343) regard teacher communication as the sine qua non of classroom teaching. Riemer (2007:92) further maintains that listening and the correct understanding of verbal communication are crucial in the workplace, as it entails the reception of the information being communicated.

It has also been noted that communication skills help reduce the barriers erected by language and cultural differences. Once the barriers are removed, cultural confusion and miscommunication are avoided. These teachers are able to speak in public, and the educational enterprise is improved, as it enhances classroom instruction and is key to successful collaboration in the educational environment.

Having communication skills is also a trait of effective school administrative personnel, as all employees should be able to communicate well with the public. Furthermore, having communication skills is one of the critical aspects of leadership. Without proper communication skills, managers fail to attain commitment from the employees, which may result in their failing to achieve business goals and developing rapport with the public (Jay 2012:1). Thus it is an essential element of managing employees.

The morale of teachers improves if there is effective communication, which in the end produces a healthy environment. Satisfied employees usually perform their duties well. The different generations of teachers reap the benefits of effective communication skills once they are collaborating (Riemer 2007:93). So, the professional success of all these generations depends on whether they are able to communicate well. Their success in communicating their subject matter well depends on whether their communication skills are effective.

2.4.2 Challenges caused by a lack of communication skills

A lack of communication skills may cause some challenges. Issues with regard to communication present considerable obstacles to production across various generations. A communication gap often exists between the older and younger generations (Fraone *et al.* 2008:4). These generations differ in the way they carry a message across and use technology, such as computers and other devices. The technology gap may create resentment and a lack of respect, because these generations fail to validate others' competences.

Inaccurate or poorly communicated information is a common cause of conflict among teachers. Poor communication leads to learning being compromised. This usually happens when one member of the team does not get complete information from other team members. This has the result that, even though all members have the same opportunity to access the same information, for different individuals it may have different meanings, based on their specialised understanding and role expectations (Huan & Yazdanifard 2012:143). In case there is no support for communication skills development, teachers appear slow (Romaine 1996:595). There is a loss of confidence, social isolation and potential loss of identity. Sometimes there is a language shift where certain generational groups gradually change their language preference to the dominant language of the community (August & Hakuta 1998:17).

Using communication skills that work effectively with different generations is a challenge to many leaders and supervisors (Sanders & Wiseman 1990:348). Supervisors find it difficult to communicate with Generation Z, as they easily get bored and are prone to changing jobs. Sensitivity to communication can help bridge gaps and create unique solutions that appeal to each generational belief system.

Cultural differences also pose a challenge to communication. What is acceptable within one culture is not necessarily appropriate or meaningful to another (Brewer & Kallick 1996:181). For instance, the way questions are posed in one culture may be deemed unacceptable in another. Once there is a cultural difference, teams may fail to work towards a common goal and end up being unwilling or unable to participate in group discussions.

Baby Boomers usually prefer communication that is open, direct and less formal. They enjoy processing information in groups and value staff meetings that provide opportunities for discussion. They prefer face-to-face communication and sometimes make use of the telephone (Weston 2001:15). As this generation is team-orientated and has strong work ethics (Cordinez 2002:244), Baby Boomers can play a very important role in improving communication through multigenerational collaboration.

Generation X members are fascinated by communication that involves technology. Their communication approach is basic, and they may become bored at meetings that include considerable discussions before decisions are made. As they are technologically proficient, they may help other generations with technology.

Millennials have grown up with instant messaging and cellular phones. They like immediate feedback and get frustrated if their telephone messages are not answered quickly. They enjoy teamwork and like team meetings as a forum for communication. Distributing lengthy policies to read may not be effective to them; instead, emails and chat rooms are good methods for providing communication updates for this generation (Carlson 2005:A35-A37).

From this discussion, it can clearly be concluded that different generations have different communication skills. Once collaboration among the various generations has been established, they are able to improve their communication skills and learning can take place.

Some difficulties have become common in today's workplace that often includes four generations. Different generations of teachers use different types of technology to communicate and do not appreciate any other ways of communication different from what they are used to. This may have a negative impact on the productivity of employees (Boysen, Daste & Northern 2016:101). Consequently, the organisation

suffers losses in valuable time and energy that are wasted because of interpersonal conflict. Generations X, Y and Z should be able to communicate using technology, while Baby Boomers should be able to use face-to-face communication. With the advent of computers, communication does not need to be face to face anymore, as texting or instant messaging on social networks suggests that there is a personal connection. Computer-mediated communication has changed the way different generations communicate. It is better for these generations to work together in order to provide meaning to one another's life.

2.4.3 Strategies for improving communication skills

The following strategies may help to solve challenges with regard to communication.

2.4.3.1 Teaching communication strategies

Teaching communication strategies helps to develop communication skills. This can be done through audio recording, video recording and oral presentations. Each generation may use one of these strategies while the others observe. Performing in pairs builds self-confidence. Different generations use language differently; so, Cahill and Sedrak (2012:13) suggest that managers need to appreciate how individuals use language and facilitate conversations that build collaborative engagement. Generation X, Y and Z teachers can be given chances to do a presentation using whatever technology is available, followed by a Baby Boomer. This will allow them to learn from one another. In addition, the different generations have different preferences concerning the frequency and style of feedback, which must also be followed by all of them.

2.4.3.2 Developing emotional intelligence

Developing emotional intelligence entails understanding one's own generational personality and biases as well as learning about differences among other employees that are based on generational issues (Cahill & Sedrak 2012:11). Seema (2012:17) suggests that being able to understand one's own emotions, to regulate them and to guide behaviour are also useful for team oral presentations and team interaction. When one is confronted by conflict caused by a lack of communication skills, one has to apply the five basic components of emotional intelligence, namely self-awareness,

self-regulation, internal motivation, empathy and social skills. This is very useful for team oral presentations and team interaction.

2.4.3.3 Improving body language

Communication involves not only verbal language, but bodies are also positioned within the space. It is therefore necessary to control one's body posture in order to communicate well. Teachers need to be aware of what message their body language may be sending (Grottman & De Claire 2001:5). The way the different generations position themselves in class also has an effect on the way the learners behave.

2.4.4 Conditions that ensure the effective implementation of communication skills

Skills in communication are necessary for many professions such as teaching. Teachers need to be constantly developing and improving their skills in accordance with the demands of the 21st century. This requires teachers to attend courses that develop their communication skills. Educational activities that take place in the classroom require teachers to have communication skills that enable them to have a positive relationship with the learners in the classroom (Yaruz & Guzel 2020:136).

Speaking effectively is critical for learning. Teachers' voices have to be audible to enable learners to understand what the teacher is saying. The teacher's voice should not be too loud or too low, because it ends up being inaudible.

Listening effectively ensures that communication is effective and creates a healthy classroom environment. This includes listening to learners' problems, complaints and requests. The teacher plays a crucial role in teaching, and if he or she is unable to listen to learners' requests, he or she may continue teaching without the learners understanding what is being taught. The use of body language is essential for learning, as learners are affected by body language. If a teacher's body language displays negativity, disruptions may erupt (Muchemwa 2014:1282; Yusof & Halim 2014:474).

2.4.5 Factors that hinder the effective implementation of communication skills

There are several factors that may hinder effective communication. Turnbull (2010:6) indicates that without tone, posture, gestures or facial expressions, there is insufficient richness in communication. Generational differences may hinder effective communication. Different generations of teachers communicate differently. This has been aggravated by the invention of technology. Different generations value different styles of communication. Some prefer face-to-face communication and body language used as a technique, while others prefer technology.

If a message has been poorly transmitted because the teacher's voice was too high or too low, learners will not understand what the message is. Sometimes a teacher with a low voice cannot be heard by the whole class. The noise in the environment also affects the transmission of the message because the information from the sender is diverted to different places.

Another factor that may affect teachers' communication skills is the learners' attitude. If the learners are negative, concentration becomes a problem and the learners may become disruptive in the classroom. The attitude of the community may also affect communication.

As the study is about improving communication skills, the different generations of teachers should collaborate in order not to be affected by these conditions.

2.4.6 Indicators of success in the implementation of communication skills

Effective communication skills have a facilitating effect on various professions, especially teaching. People with effective communication skills have positive relationships. This is very important for teachers because they instil values in learners. Effective communication skills motivate learners to work harder.

Teaching is the most important profession in terms of communication. Teachers communicate with both parents and learners. A teacher with effective communication skills gains the support of the parents, which, in turn, leads to parents having a high regard for the school. Also, learners support teachers who speak well and listen to them.

Outcomes in the school depend on the teachers' communication skills. When different generations of teachers collaborate and communicate well, the community respects the school. This results in the community supporting the school financially and socially.

Communication skills are used in the activities of the school, ensuring that the learners are included in teaching and learning. If a teacher is a good communicator, he or she listens and shows attention and interpersonal concern, which are rarely found when there is no effective communication.

2.5 RELATED LITERATURE

2.5.1 Introduction

In order to understand how other countries facilitate multigenerational collaboration among teachers, this section reviews literature covering South Africa, the SADEC countries and the United States of America to address the five objectives of the research. These objectives are challenges inhibiting effective multigenerational collaboration of teachers, how effective multigenerational collaboration among teachers is facilitated in other settings, conditions that ensure effective multigenerational collaboration leads to improved communication skills for teaching, threats and risks that have to be anticipated and how tow to circumvent them when facilitating effective multigenerational collaboration and the presentation of the strategy that has been tested in the field to facilitate multigenerational collaboration of teachers.

2.5.2 Challenges inhibiting effective multigenerational collaboration of teachers towards the improvement of their communication skills

Countries face different challenges in using multigenerational collaboration. Increased conflict among the various generations in the United States of America is mostly caused by different work values, miscommunication or poor communication, work life issues, differences with regard to technology use, issues regarding teamwork and failure by management to address these differences (Arsenault 2004:128; Boysen *et al.* 2016:101; Carver & Candela 2008:985; Hillman 2014:241; Moore, Everly & Bauer 2016:1).

A lack of support from leadership poses serious challenges in many schools in many institutions (Solaja & Ogunola 2016:53), as visible leadership support is very important for the success of collaboration because it encourages participants to feel the importance of the programme. Failure by leadership to allocate resources for the training and development process and not being flexible in arranging meetings are aspects that may hamper the progress of a mentoring programme, which may ultimately pose a challenge to collaboration. In addition, organisational goals that are not well defined may cause a challenge to the different generation. For instance, the members of Generation X rely heavily on themselves and are eager to learn new skills, but without well-defined goals, they will be unable to communicate well. This challenge is evident in several countries.

Nigerian schools experience problems caused by failure to share goals because these schools are financed and controlled by the government. Misunderstandings regarding work ethics, communication style, approaches to problem solving and the different standpoints they have towards achieving organisational goals commonly occur (Solaja & Ogunola 2016:52). Also in Nigeria, Osa and Amos (2014:107-122) have noted when there are no shared goals, productivity declines. Goals have to be communicated among all levels of management and generations in the organisation. Secondly, to increase productivity, the set goals require cooperation. According to Osa and Amos (2014:107-122), cooperation is one of the most important influences on production, and when one person is uncooperative, the entire process slows down.

Teacher morale plays a very important factor in the provision of quality education. In Zimbabwe (Mudzi District), the pass rate was 12.99% in the Grade 7 examination in 2014. This was caused by a lack of support, as the majority of the teachers were inexperienced and unhappy about their workload, with class sizes in most schools much larger than the stipulated learners-to-teacher ratio (Muranda, Tshabalala, Ncube & Gazimbe 2016:5).

The same challenges experienced by other countries have been noted in South Africa too, as indicated by Mitchell (1997:8), Jacobs (2010:229) and Oxford and Nyikos (1997:441). These challenges include the absence of a shared professional identity, differing pedagogical orientations, individualism in teaching, anxiety and a lack of confidence, power dynamics and teaching experience. Individual teaching styles may

also pose a challenge for collaboration, as has been indicated in research at a school in Limpopo, South Africa, where the teachers' morale was very low and they did not respect one another (Rammala 2009:4).

2.5.3 How effective multigenerational collaboration among teachers was facilitated in other settings

Using multigenerational collaboration to improve communication skills was found to be beneficial to different institutions. It has worked in several countries, where it was found to promote a forum of shared learning and to assist in problem solving. In the United States of America, Thornton, McKissick, Spooner, Lo and Anderson (2011:11) found that collaborative pre-teaching was effective in increasing the number of correctly answered questions in a biology test, and performance had been maintained over time. In this way, they were able to solve problems. Raby (2019:1) from Bradman University in America regarded multigenerational collaboration as a benefit rather than a challenge because what is regarded as a challenge can be solved by prioritising flexibility and dispelling stereotypes.

In Zimbabwe, it has been found that collaboration is a skill that can be strengthened over time. Chirozva (2013:50) discovered that collaboration after express consensus from the community was a fundamental condition for the long-term success of a project where research was done among semi-literate participants. According to Hallam, Smith, Hite, Wilcox and Hite (2015:203), trust should be incorporated as an integrated approach component of effective collaboration.

Furthermore, in South Africa, collaboration undertaken in six poor urban schools proved successful, because the teachers managed to pool their resources together (Moore Johnson, Reinhorn & Simon 2016:25). Collaborating made these teachers' jobs manageable, helped them with coordination of their planning and improved the quality of their lessons (Moore Johnson *et al.* 2016:25).

It has also been found that working in collaborative groups is a viable alternative to inservice training offered by provincial departments. Benefits of working in collaborative groups include increased efficiency, increased diversification of teaching strategies, sharing in decision making and reduction of workloads (Hargreaves 1994:246). The necessity for multigenerational collaboration is supported by Boysen *et al.* (2016:106), who point out that it also improves communication skills.

The literature discussed above supports the researcher's argument that once there is collaboration among teachers, they are able to solve problems together, strengthen their teaching skills, experience shared learning and participation, pool their resources together, obtain collaborative support and take turns in assuming the lead while embracing diversity.

2.5.4 Conditions that ensure effective multigenerational collaboration in improving communication skills

One of the conditions for successful multigenerational collaboration in improving communication skills is educating the staff about differences in generational attitude and values through a human resource policy (Daane, Beirnie-Smith & Latham 2000:335). Management needs to engage employees of different generations in the adoption of policies and programmes that offer flexibility and choices. Policies do not start with adoption, but teachers should be involved in the formulation of such policies. It is important for the administrative staff to support the change, as Dicker and Murawski (2003:1-13) indicate that teachers tend to be negative if the rationale is not explained to them. This happened in research undertaken in America to collect data as teachers engaged in various collaborative teaching arrangements (Dicker & Murawski 2003:1-13). One school left the research, citing difficulty in scheduling and the teachers being unwilling to collaborate. This required teacher training in the form of discussion groups and formal and informal professional development. In addition, in the school mentioned, collaboration practices were introduced to the teachers without any vision or indication that it was a priority of the school. A lack of interest was inevitable.

Awareness training on communication competency to understand and embrace mutual goals should be done. For instance, in Florida, a speech communication workshop was provided with the objective of training teachers to be communicators in the classroom, as different generations use language differently (Fullan 1990:3-25).

Team teaching is viewed as beneficial to both teachers and learners, as it serves as a vehicle to bring people of different generations and diverse backgrounds and interests together to share knowledge and skills that generate quality teaching and learning. A collaborative curriculum in physical education in Urbain Middle School, America, proved the success of collaboration. The teachers made it possible for mutual respect as well as different teaching styles to develop, despite the dissimilarities in teaching philosophies prevalent in these schools (Keefe & Moore 2004:85; You & Craig 2015:519). Another American team engaged in a four-word build exercise as a team-building strategy to increase mutual understanding, communication and respect (Boysen *et al.* 2016:102; Moore *et al.* 2016:1).

2.5.5 Threats that have to be anticipated and how to circumvent them when facilitating effective multigenerational collaboration of teachers

Bragg (2014:1) and Sage, Adams and Andenoro (2009:38) have noted that in America, collaborating and learning among generations generate fresh ideas and produce new solutions for solving challenges. Therefore failure to work together as teachers poses a threat to collaboration. For instance, using the latest technology strengthens collaboration among younger generations, which, in turn, enhances innovation. Millennials' use of real-time communication technologies, such as instant texting, enhances interpersonal communication. It has also been found that effective and efficient small-group communication provides members with the opportunity to grow.

Another threat is failure to share knowledge across generations, which involves exchanging knowledge among individuals and other groups of people, which is expected to benefit all. The sharing of knowledge is founded on the social exchange theory that stipulates that individuals share in order to gain rewards from the social exchange (Razak, Pangil, Zin, Yunus & Aswan 2016:550). The sharing of knowledge leads to high commitment and job satisfaction, provides opportunities to learn from one another, improves organisational performance, promotes staff creativity and enhances organisational competitiveness. In the end, this motivates employees to respect one another. Brown, Isaacs and Tan (2008:32) assert that mutual respect encourages conversation and sharing stories across traditional boundaries of age and stages of life. Consequently, people are able to frame the right questions across the

generations, and co-mentoring and common use of technology occur. Once knowledge has been shared, the different generations of teachers are able to understand their differences, create opportunities for cooperation and maintain a work environment that supports a culture of mutual respect.

Failure to complete work also creates a threat. There is positive social interdependence that promotes interaction and encourages the completion of work by individuals. Production is encouraged to reach the goals of the group. In addition, there is mutual help and influence, mutual trust, effective communication and effective management of conflict. This is supported by the social interdependence theory that stipulates that social interdependence exists when the accomplishment of each individual's goals is affected by the actions of others, which may be positive or negative (Johnson & Johnson 2009:366).

Failure to create a positive environment where resources are needed poses a threat. It is indicated that a collaborative environment allows for positive social interdependence, which ends with sharing common goals. This allows for the creation of an environment where resources needed are exchanged. Positive social interdependence will benefit the different generations in several ways. With millennials being technologically proficient, all the other generations will be kept abreast and be able to improve their teaching practice.

Solaja and Ogunola (2016:52) posit that in Nigeria, investing in a multigenerational workforce has promoted an integrated workforce and cross-generational talent development and has enhanced technology as a tool to integrate multigenerational differences and improve the quality of education. This is supported by Mabokela and Mawila (2004:375), who declares that having a multigenerational workforce increases productivity.

2.5.6 Strategies that have been tested in the field to facilitate multigenerational collaboration

Some multigenerational collaboration strategies that may be used to improve communication skills are discussed below.

2.5.6.1 Training and development programmes

Training effective communication skills has worked well among different generations and professions. (Fallowfield, Lipkin & Hall 1998:1965). In the United States of America, Smyrl (2011:16), realising that members of older generations were leaving, companies suggested training that fits the learning style and lifestyle of diverse employees in order to improve communication skills. Berk and Meyers (2013:20) and Radford, Shacklock and Meissner (2015:19) support the notion that the standard mode of communication, awareness training and the class itself should be blended to cater for the diverse training needs of various generations of teachers.

In Nigeria, several multigenerational collaboration strategies are used to improve communication skills, such as enhancing technological proficiency, by making it popular among the various generations and enhancing technology as a tool to integrate multigenerational differences (Solaja & Ogunola 2016:53). Through training, leaders develop knowledge on how to address the differences in motivation, communication patterns and technological preferences of the different generations. Training should take into account differences such as Baby Boomers preferring classroom interaction and usually seeing training as a benefit or perk, while Generation X prefers independent, self-directed learning with lots of activity and the use of technology where possible. They usually see training as providing career security. On the other hand, Generation Y prefers a collaborative learning environment with peer interaction and using smartphones as resources. Members of Generation Y are highly engaged in social networking.

Van der Walt and Du Plessis (2010) advocate the need for generational awareness through training and declare that it increases productivity. It has been found that Generation X places more value on skills development than other generations.

2.5.6.2 Reverse mentoring

Solaja and Ogunola (2016:52) declare that it is necessary for organisations to invest in a multigenerational workforce by promoting an integrated workforce through collaboration, mentoring, career development and talent management. Development of cross-generational talent can be done by rewarding team-based work and making mentorship a performance expectation.

Reverse mentoring worked for Jack Welch, managing director at General Electric in America, who ordered 500 of his top managers to find young employees to teach them about the Internet. Marcinkus Murphy (2012:549) discovered that it built relationships, fostered better intergeneration, enhanced diversity and drove innovations. The benefits derived from a mentoring programme are dependent on clearly defined objectives, and it is imperative for South Africa to align such objectives to the goals of producing knowledge and innovation.

According to Abbott and Beck (2010:2), mentoring programmes fail in South Africa because the purpose of such programmes is not clear, stakeholders are not involved, clear codes of conduct and guidelines are not designed and mentoring pairs do not receive support from coordinators and are not trained.

2.5.6.3 Recognising and appreciating the difference in communication skills

It is necessary to recognise and appreciate the differences in the communication skills of the various generations, because people communicate based on their generational background and each generation has different attitudes, habits and means by which it is motivated (Hayes 2013:2). Hannam and Yordi's (2011:91) description of the differences in communication across the various generations is summarised in the table below:

Table 2-2: Communication across different generations

Generation	Preferred method of communication	Suggested way to communicate
Baby Boomers	Face-to-face communication Phone calls Personal interaction Structured networks	Conversation should be more informed. They tend to see relationships and business as intertwined. Get the person's input and link the message to the team's or individual's vision, mission and values.
Generation X	Voicemail Email Casual Direct and immediate	Do not waste this person's time. Be direct and straightforward. Avoid corporate speak. Send an email or leave voicemail that states clearly what you want and when you want it.
Generation Y	Digital (instant messages) Blogs (text messages) Collaborative interaction	Be positive. Tie the message to personal goals or team goals. Do not be condescending. Avoid sarcasm and cynicism.

Source: Hannam and Yordi (2011:91)

2.5.6.4 Sharing learning by different generations of teachers

According to Burns (1995:99), learning is a permanent change in behaviour, both observable activities and internal processes, such as thinking and attitude. Adults are expected to have an influence on how learning would be evaluated and expect their responses to be acted upon when they ask for feedback. This calls for different generations of teachers to design and implement educational programmes in order to have a permanent change in their behaviour (Burns 1995:99).

To succeed as teachers, they have to collaborate, because one of the benefits of collaboration is shared learning (Baecher 2014:4; Chirozva 2013:47). This enables teachers to share responsibility and not to work as individuals but to pool their resources (Davis 1995:8; Friend & Cook 2010:45). This has the effect of changing learners from being passive participants to active participants. When different generations of teachers collaborate, a social context for professional development among peers is created (Anderson & Speck 1998:673). In such situations, colleagues coach one another and a small group of peers engages in a periodic exchange of ideas (Robinson & Schaible 1995:57-59).

The sharing of learning is an indispensable strategy for motivating and integrating multiple generations. Different generations may be offered different working options, such as telecommunication and working offsite where they learn new skills. This will, in the end, motivate them, for instance, Generation Z, which easily gets bored and wants to move on to the next job without having mastered the previous one, and Generation X, which prefers ongoing training and is results-orientated.

2.6 CONCLUSION

As indicated by the literature and lessons learnt from this chapter, one can conclude that communication is very important to the success of teachers in their teaching practice, as it helps address diversity in the classroom, contributes to social adjustment and enhances classroom instruction. However, because of the age difference in the work situation, there are challenges between the old and the young. There are differences in putting the message across and in technology usage, as well as cultural differences, which lead to some teachers losing confidence in their work.

Therefore, in this study, the argument is that multigenerational collaboration improves communication skills, because through collaboration, teachers are able to participate actively, rethink their teaching philosophy, become closer, have mutual respect, share knowledge and, in this way, overcome a scarcity of resources, improve their listening and speaking skills and are able to share responsibility.

Bricolage is the most relevant and suitable lens for this study, because many schools lack resources, which may be in the form of insufficient raw materials, inadequate infrastructure, a lack of trained personnel and a politically unstable environment. Bricolage can help researchers to guide teachers to get resources from outside their organisation, whether previously used or not, and help teachers (whether skilled or not) to apply combinations of resources. Bricolage is used because it enables participants to create something out of nothing. It encourages them to be flexible and examine a phenomenon using multi-methods, multi-theories and multi-disciplines. Through it, teachers are empowered to engineer their future through action and critical

research and not be confined to one paradigm. By using multiple strategies, they are able to construct, reconstruct and readjust their knowledge.

This study affords teachers the opportunity to address communication challenges through collaboration and cooperation. Through this, they are able to understand their differences and create opportunities for collaboration, acknowledge the strengths of each generation and maintain a work environment that supports a culture of mutual trust. Through reverse mentoring, they are able to reduce peer conflict and develop a flexible communication style.

The next chapter deals with the methodology of the research and indicates how multigenerational collaboration among the different generations will be achieved.

CHAPTER 3: RESEARCH METHODOLOGY AND DESIGN

3.1 Introduction

In this chapter, a presentation is given of the design and methodology that were used in designing a strategy to facilitate multigenerational collaboration among teachers in order to improve their communication skills for teaching. To achieve this, PAR was used to generate data. The free attitude interview (FAI) technique, which allows data to be generated in a humane manner that does not alienate or undermine the coresearchers, was used. Audio-visual instruments were used to collect data, and CDA was used to analyse the data. Lastly, the team that was involved in the study is discussed, including the criteria for the recruitment of the team members, their roles and responsibilities, their credentials and the purpose of their inclusion in the study.

3.2 Relevance of PAR as a methodology

PAR is a community-based action research model where researchers, learners and community members define problems, gather information and develop solutions together (Barnes, Brinkley-Rubinstein, Doykos, Martin & McGuire 2016:36; Mubuuke & Leibowitz 2013:30; Sandoval, Bryan & Burstein 2002). By so doing, they educate or enlighten themselves to act more wisely and prudently (Kemmis, McTaggart & Nixon 2014:12). This approach allows the researcher to interact closely with the coresearchers in order to observe and interpret their world (Dexter 1970:36; Patton 1990:270) and does not deny the efficacy of expertise for understanding and finding solutions to complex situations. PAR brings about a just society in which no groups or classes of people are discriminated against or suffer from deprivation of the essentials of life (Kemmis et al. 2014:12; Schwandt 1997:12). It focuses on lessening poverty by permitting people to get involved in their own social transformation (Kemmis & Wilkinson 1998:21). This is achieved by allowing and organising the ordinary and poor to come together and change structural features of their social background in order for them to realise their full potential (Maguire 1987:157; Park et al. 1993:4). This is in line with the objectives of this study because through PAR, different generations of teachers, irrespective of their social status, were empowered to transform their conditions and develop their consciousness in order to improve their communication skills.

3.2.1 Addressing social issues

Major sections of our society over the world are excluded from participating in the creation of their own knowledge as thinking and feeling beings. PAR appears to be a conscious way of empowering such people in the formulation of the problem to be investigated, what information is needed to solve it, which methods are to be used, the procedures to be followed in collecting data and, finally, what needs to be done with the findings. In PAR, co-researchers are involved from the beginning; hence the researcher found PAR to be very relevant to this study. Barnes *et al.* (2016:36) confirm that PAR helps people to change their social and educational realities. It explores the relationship between individuals and society and recognises that they are interrelated. Through action research, teachers come to understand their social and educational practices more richly by locating their practices as concretely as possible. This is done in the particular material, social and historical circumstances in which the practices are produced, developed and evolved so that their practices can be available and scrutinised as productions of the past that are capable of being modified for the present and future circumstances (Atweh, Kemmis & Weeks 1998:24).

PAR is very relevant in this study because the members of a multigenerational teaching corps understand their educational and social practices better and scrutinise their historical development. Furthermore, they are able to take on the role of researcher, question the decisions they make, promote social equality in the classroom, discover new methods through collaboration and modify them where necessary in order to improve the present and the future. The teacher, as a facilitator, takes on the role of a researcher in the classroom (Turk 2012:52). In the current study, the members of a multigenerational teaching corps analysed the way they had been doing things with the support of community members. They discovered new methods of teaching; for instance, Baby Boomers were able to make use of technology in presenting lessons. For the first time, these teachers became researchers and were able to identify their problems, find solutions thereto and implement them. As most of the team members were from marginalised groups, they were empowered to be part of the solution. PAR also helped with teacher development and gaining indigenous knowledge.

In addition, PAR works well in educational research as a means for professional development, curriculum improvement and problem solving in a variety of work situations. It provides a framework in which researchers are able to change, can become aware, critical, assertive, creative and more active and ultimately are empowered politically to achieve the change needed (Kemmis & Wilkinson, 1998:22; Ruechakul *et al.* 2015:6).

PAR is transformative in nature (Schwandt 1997:12) in that it asserts itself as an emancipatory approach to the creation of knowledge (Sheppard, Jorgensen & Crowe 2012:3) that is available to even the oppressed. In the current study, it helped teachers recover and release themselves from unreasonable and unjust social structures that limited their development and self-determination (cf. Barnes *et al.* 2016:36; Le Grange 2012:1132). A multigenerational teaching staff is able to bring indigenous knowledge to the problem and collectively arrive at a new solution because everyone is a teacher as well as a learner. This helps co-researchers realise they collectively need to work together to accomplish change.

Furthermore, Kemmis and Wilkinson (1998:21) indicate that PAR aims to help people investigate reality in order to change it and, at the same time, helps people to change reality in order to investigate it. This happens when people investigate and change their social and educational realities by changing some of the practices that create their lived truths (Streck 2016:online). Some generations are content with their lack of communication skills, but through PAR, they are able to change their reality by investigating it through collaboration.

The philosophy underpinning PAR is consistent with the postmodernist tradition that shifts from the traditionalist theory, because according to them, objectivity is impossible, but multiple realities exist (Park *et al.* 1993:5). Researchers view themselves in relation to others in their social context (McNiff & Whitehead 2002:33). In order to make sense of a phenomenon, they need to understand the meaning that is formed by interactive social behaviour and be committed to the construction and legitimisation of knowledge. Co-researchers are able to produce valuable knowledge, which binds all other co-researchers, as they are all involved in the development thereof. Mubuuke and Leibowitz (2013:31) point out that the epistemological assumption underpinning PAR is that it takes the creation of knowledge as an active

process, knowledge being uncertain and the subject of the inquiry being the researcher.

Since PAR is conducted by a collaborative partnership of co-researchers whose roles and responsibilities are fluid to maximise mutual support and differentiated to maximise contributions (Somek 2006:7), the different generations of teachers are able to take on the role of the researcher with the goal of improving their own experience. According to Bradbury-Jones (2014:7) and Turk (2012:52), such co-researchers are able to question their decisions, promote social equality in the classroom and discover new avenues for collaboration in order to understand a concrete reality.

3.2.2 PAR generates knowledge

Besides the participation by co-researchers in the inquiry, PAR involves a joint process of knowledge production and leads to new insight on the part of scientists and practitioners (Bergold & Thomas 2012:195). It engages people in examining their knowledge, which includes skills and values and how they interpret themselves, as it is built upon the notion that knowledge is a collaborative process in which the experiences of different co-researchers are critical to the outcome of their work (Denzin & Lincoln 2005:22; Mubuuke & Leibowitz 2013:32). This gives stakeholders the authority to direct the process and to address real needs affecting them. Through PAR, different co-researchers investigate reality and, in this case, the lack of communication skills in order to change and improve the situation. According to Kemmis *et al.* (2014:12) and Mackay (2016:1), research is seen as a learning process that includes a set of diverse activities for generating, sharing, exchanging and using knowledge, and the redefinition of local people from being recipients and beneficiaries to actors who influence and provide key inputs to the process. This is unlike positivism, where co-researchers are passive observers.

The team was able to gain knowledge because all of its members were involved in problem solving and decision making. More skills were acquired, which enabled even the community members to value the role the school played in the community.

3.2.3 PAR promotes teamwork and collaboration

PAR is collaborative because it creates opportunities in which people can join one another as co-participants in examining the acts that link them to others in social interaction. Different generations of teachers and the community work collaboratively to solve their educational and social problems. This collaboration has the effect of viewing research and development as no longer the exclusive domain of scientists, but where even the socially disadvantaged can get engaged in the development of knowledge that affects them (Mackay 2016:3). By allowing co-researchers to work together, a communication space is created among co-researchers, which has the effect of suggesting solutions to their problems (Bolton 2005:1). Thereby, a product that all of the co-researchers have contributed to and is likely to be acceptable is produced, because their fears are settled in the process (Mubuuke & Leibowitz 2013:32).

The team managed to analyse the challenges the teachers had concerning communication skills. As they worked as a team, they observed one another teaching. This helped them to develop communication skills that led to the effective transfer of knowledge. Community members were also encouraged to note that they could form part of the co-researchers too.

3.2.4 PAR is emancipatory

This study used PAR because of its emancipatory nature, as it helps co-researchers recover and liberate themselves from the constraints of irrational, unproductive and unjust social structures that limit their self-development and self-determination. The role of community members is reaffirmed and redefined from being the passive recipients of research findings to actors who influence and provide key inputs to the process (Kemmis & Wilkinson 1998:24; Maguire 1987:157). This is further strengthened by the decision to support and gather information that enables different co-researchers to make strategic choices and take action (Ruechakul *et al.* 2015:65). Different generations of teachers and the community, irrespective of their social standing, would be liberated and involved in the development of their own knowledge.

The team members were from the community and had never been involved in research. In this study, they were empowered because they were not used as research objects but had an input in the formulation of the research question, determining the objectives and coming up with solutions to the problem.

3.2.5 PAR opens discourse

PAR encourages teachers to release themselves from the constraints of social media through which they interact. By using PAR, teachers are enabled to interact using their own language; they are able to assess and feel their differences, inclusion and exclusion (Kemmis & Wilkinson 1998:24-25). During this process in the study, the coresearchers contested unjust ways of interpreting and describing their world and ways of working. This enabled them to analyse the challenges they had, as they could communicate without fear or favour and produce a solution that suited them all.

3.2.6 PAR suits the theoretical framework of bricolage chosen in this study

In line with bricolage, PAR sets social goals as a priority, encourages stakeholders' participation in the organisational decision-making bodies and refuse to be constrained by limitations that are imposed by a political setting (Di Domenico *et al.* 2010:681). This was done through discussions with various local and different organisational representatives, as well as engaging with several teachers who were presented with real-life cases. They then familiarised themselves with real problems and decided on the solution to be implemented.

3.3 The role of the researcher

The researcher's role in this study was to act as a research link and organise a team of co-researchers comprising teachers from different generations as well as priests, learners and other stakeholders from the Department of Education. The researcher then facilitated the development and analyses of the demographics and academic data. This included playing a critical role in mediating the co-researchers' engagement in terms of control, collaboration and commitment (cf. Drame & Irby 2015:2).

Teacher researchers are data collectors from their practice and also artists in that they are able to express learners' voices in a visual and auditory mode (Balcazar *et al.*

2004:17-35). Co-researchers bring consciousness and the voices of the people to the fore of social change, being on an equal footing, without any dominance or prejudice.

3.4 The relationship between the researcher and the co-researchers

In this section, an indication is given of the importance of the relationship between the researcher and the co-researchers. This relationship is based on trust; therefore, they are equal partners in unfolding the research problem. The intention of this relationship in the study has been to identify the problem together, develop solutions and implement the best solution that would be sustainable.

The relationship between the researcher and the co-researchers is based on bringing together diverse bases of the knowledge of all the co-researchers and their distinctive social locations to bear on a problem collaboratively. The researcher and the co-researchers collaborate to achieve change that is socially relevant, transformative and sustainable. Both the researcher and the co-researchers are stakeholders invested in the social impact of the research project, with co-researchers demonstrating varying degrees of influence in determining research agendas and processes (Balcazar *et al.* 2004:7). The co-researchers and the researcher work together to identify community problems, resources and sustainable solutions. By having co-researchers playing an active role in research, a desired outcome of PAR is enhancing a sense of empowerment.

This study was couched by bricolage, in order to address the lack of resources. Scholars such as Garud and Karnøe (2003:278) define resources with which a bricoleur constructs his or her solutions as the mindset or reasoning process of the bricoleur him- or herself and the mediating relationship between the bricolage and the environment. This definition supports and acknowledges the power the researcher and co-researchers have and how it can be changed. Coyle (2010:81) posits that co-researchers, as bricoleurs, combine available resources, theoretical and philosophical understandings and methods of inquiry in new ways to illuminate the complexity of the research focus.

The participants in a bricolage work as a team, and all their activities are geared towards one goal, as these cannot be copied across context because bricolage

activities are once-off. This notion is supported by Di Domenico *et al.* (2010:685) and Mahlomaholo (2009:226), who describe bricolage as stakeholders' participation in the organisational decision-making bodies, which enables the commitment of local actors, creating space for transformation and self-empowerment. In addition, Campanella (2009:5) maintains that the researcher and co-researchers should work collaboratively as equal partners across the entire research process in order to change their position through challenging their marginalisation.

As described, all researchers and co-researchers use multiple methods, strategies and theories in order to achieve the objectives of their study. Furthermore, as critical researchers, they have to establish mutual trust and be genuine, empathetic and mindful of the issues the communities have. As bricoleurs, they enter the research act as negotiators and co-researchers who direct and inform the direction of the studies. They listen to all and weave meaningful solutions from fragments of data and material from the direct sources (Kincheloe 2004:23-39).

3.5 Ethical considerations

Ethical considerations are necessary when undertaking research. The most important thing is to be able to differentiate between the moments of ethical processes and be able to make decisions that are ethically sound. In order to comply with ethical considerations, the researcher applied for ethical clearance from the University of the Free State (Appendix A). This enabled her to further apply for permission from the Free State Department of Education to conduct research in two schools in the Motheo District (Appendix B).

It was clearly stipulated that the participation of the schools was voluntary and the information would be presented in an anonymous manner to protect their identity. The information gathered in discussions would be kept private and would be used only for research purposes. The participants were further informed that if they chose not to continue with the study, they were at liberty to stop their participation at any time. The researcher also sought permission from the teachers who would be taking part in the research. This would entail video recording them while presenting lessons in class. They were guaranteed that the material used would be safely locked away and destroyed after the study had been completed. The learners were informed of research

ethics, anonymity, confidentiality and protection from harm, and informed consent was obtained from their parents or guardians in all research activities. They understood that they could withdraw from the research at any time. Pseudonyms were used in reporting on the research. Written consent was obtained from all the co-participants with the understanding that their participation was voluntary and could be withdrawn at any time without any repercussions.

3.6 Rhetoric in PAR

The language used in PAR empowers the marginalised and oppressed, because coresearchers are not treated as objects of research as in positivism but are provided with space for growth through participation (McTaggart 1997:9). Thus it fosters unity among co-researchers. For the purpose of this study, the team had to establish the language prevalent in the area that could be spoken, understood and written by all. Sesotho was established as the language spoken, understood and written by most of the teachers and learners. The team decided to use Sesotho so that all of the team members could be on the same level. By using Sesotho, all co-researchers were able to reveal the cultural wealth and value they attached to it, as it is indicated by Hooley (2002:8) that power is built through the use of language.

3.7 Challenges that affect PAR as a methodology

There are several challenges that are encountered by co-researchers and researchers when PAR is used as a methodology. The inclusion of community members in the research team may cause a problem because they may struggle to maintain their commitment over time as PAR is time consuming (Whitehead & McNiff 2006:7). PAR requires time, knowledge of the community and sensitivity on the part of the researcher to the co-researchers' agendas. In addition, community members have different values and abilities. They need consensus in determining what social issues require immediate achievement. Time frames anticipated for change may be difficult to attain, and conflict about the interpretation and analysis of the research may arise. This may lead to the wrong questions being asked. In this study, the inclusion of learners created challenges because, with their commitment to extra lessons, they could not keep to the times arranged and did not turn up for meetings, which caused an increase in the number of meetings.

In order to reach a mutual understanding, individuals should disclose to their fellow researchers the background to their philosophical foundation. If there are different perspectives, they should negotiate to reach consensus. Dissenting views are needed, as they are essential for the production of knowledge and enable the discovery of new aspects. In order to facilitate sufficient openness in this study, a safe space was needed for the different generations of teachers. The inclusion of a conversional spiritual leader created a problem, because his philosophical foundation was opposed to the foundation of some of the other co-researchers. So, if one dissented, it was because he or she was an atheist according to the spiritual leader.

PAR aims to involve marginalised groups in research and, in a way, foster empowerment. On the other hand, these are just various groups of ordinary people who are characterised by a lack of competitiveness. For that reason, they are deemed to lack the competencies necessary for research (Bergold & Thomas 2012:202), whereas they should be willing to engage in research. As community members were involved in this research, they might have lacked competitiveness which might have led to the project being prolonged.

Participants may have to prove their legitimacy to other conventional researchers who are not used to working in open-minded research designs. The researcher may be challenged to legitimise his or her research as per the focus on what the people say and what their daily experience is. PAR may be challenged because it focuses on the voice and everyday experiences and not on the way the data should be handled (Young 2006:501).

When it comes to sampling, PAR approaches rely on the utterances of local coresearchers, and the sample is regarded as inadequate as compared to traditional approaches that require a sample that is representative. The process is not as neat as could be expected, because the research stages overlap and initial plans quickly become outdated (Kemmis & McTaggart 2003:7; MacDonald 2012:40).

Furthermore, there is also a challenge relating to the diversity in meaning of PAR, as people usually use it interchangeably with action research. This may confuse researchers, especially novice researchers (MacDonald 2012:40). In addition, members of the research team must be sensitive and responsive to the different types

of leadership required at different times in the research project, as this sometimes creates a power imbalance, with some of the co-researchers ending up as mere tokens without making any contributions.

3.8 Success indicators of PAR

PAR facilitates learners' engagement in their social context and their acquisition of knowledge to initiate personal and social transformation. Learners are able to reclaim the political spaces that silence their voices by filling in the missing element (Cammarota & Romero 2011:488).

PAR has benefits for the organisation too. It clarifies issues, identifies education and training needs and, in some cases, overcomes organisational barriers to change (Lindeman *et al.* 2003:23).

The success of PAR can clearly be indicated by the empowerment of teachers, schools and communities. Ruechakul *et al.* (2015:65) maintain that the empowerment of teachers involves mutual respect, critical reflection, caring and group participation, through which people lacking in an equal share of valued resources gain greater access to and control over these resources. Marie Kennedy, in the *Cape Times* (2011), says this process raises political consciousness because community members gain control over their lives, participate democratically in the life of their community and gain a critical understanding of their environment. By getting involved as coresearchers, the community will respect the school and be able to help with the resources the schools are lacking.

An empowering process for teachers includes participation in the community organisation at organisational level, which includes collective decision making and shared leadership. Teachers will be able to share the limited resources schools have, will champion the necessary changes required to improve communication skills and will take collective action to access government and other community resources in order to improve their skills.

Community empowerment is more than involvement, as it helps develop both the teachers and the organisation to recognise their knowledge and problem-solving skills. Because the research was conducted at two schools, great interest was displayed by

the teachers who were involved as participants. This led them to encourage other teachers to use technology, seeing it as "the way to go". Empowering the oppressed led them to being able to take action in solving their problems.

3.9 STUDY CONCEPTUALISATION

3.9.1 Step 1

The first step was to identify a problem to investigate. The researcher conceptualised the problem. The problem was not a finality. The conceptualised problem was presented to the team to adopt, rephrase or recast. As soon as the team was assembled in Step 2, the researcher had to present it to the selected participants. The problem identified was communication skills hampering ease of learning and teaching at the workplace caused by a lack of collaboration among teachers.

The other problems identified and ultimately owned by the participants were identified by the researcher. The researcher had managed a school with three generations of teachers. The school was a combined school, with many Baby Boomers teaching in the Foundation Phase and most millennials in the Intermediate Phase, while Generation Z was mostly teaching in the Further Education Training band. This allocation was justified because some of the subjects done in Further Education Training were unknown to the teachers in the Foundation Phase. The researcher had noticed a great difference when these teachers were communicating and realised that the difference had an impact on teaching and learning. At the same time, it had been observed that when collaboration among the teachers of different generations was encouraged, there was an improvement in the situation. In the study, this observation was subjected to experimentation so that the observation was made a fact.

3.9.2 Step 2

It was necessary for the researcher to identify the team. The researcher identified two principals in Botshabelo Township (east of Bloemfontein) in the Free State Province, South Africa. These principals, Mrs Dinku and Mr Sheep, were identified because their schools (Reathusa SSS and Kananelo SSS) had teachers representing the different generations, Baby Boomers and Generations X, Y and Z. The researcher started by

meeting the principals of the two schools individually to explain the purpose of her visit. She requested them to sign consent forms giving her permission to conduct the research at these schools. A request was made to identify nine teachers and four learners who would like to be involved in the project. The teachers were selected on the basis of the generations they belonged to as well as the subjects they taught. Each of them was paired with a Baby Boomer. The focus was on the following subjects:

- English
- Business studies
- Mathematics
- Physical science

As PAR involves the participation of the local people, the researcher decided to have an informal meeting with different teachers in order to find the team she needed for her research. This was followed by contacting businesses and religious institutions. This also helped to establish which language was prevalent in the area and to develop a relationship of trust, respect and honesty.

In order to achieve participation by all the parties, planning was necessary. After having identified the needs, the parties decided on the activities to be achieved in order to suit these needs. These activities had to be prioritised, taking into account the physical and financial resources available. This involved developing activities through which the priorities and problems were to be realised. The activities had to be allocated time frames within which they were to be completed. In order to eliminate risk, a contingency plan was drawn up and agreed upon.

The planning stage was useful as it ended with the establishment of the coordinating team and approved activities directed by prioritisation. Each member understood his or her role in the project. The co-researchers clearly understood that they were all co-researchers, with the role of developing a strategy to facilitate multigenerational collaboration among teachers in order to improve their communication skills for teaching. This involved consulting teachers about factors that affected their lives and, ultimately, professionals deciding what the best was for them. This was done in order to build collegiality and collaboration.

3.9.3 Step 3

The researcher, as part of the research team, identified the resources to be used. Data projectors, video recorders, computers, data projectors, iPads for the learners and cameras were sourced, either from one of the team members or schools. The presence of a businessman in the team proved very useful to the team in easing the challenge of transporting the team members from one place to another. As a bricoleur, one could argue that the presence of the priest provided the necessary blessing needed for successful teamwork. Each team member had a role to play and was thus enabled to carry out the research itself.

First, they all identified the challenges they experienced at the school. The first problem indicated was the lack of a team leading the different generations of teachers using different communication methods. Various solutions were identified, with all members getting involved. The strategy to be used was decided by all; so, if it were successful, the results were to be owned by all. If not successful, all had to analyse the strategy to establish the weaknesses and strengths thereof. This enabled the coresearchers to have a voice in the solution of the problem. This involvement empowered them and enabled them to acquire new knowledge through participation. It also enabled community members and other teachers to be involved and learn how to carry out research.

3.9.4 Step 4

The participants were assembled in a classroom whereby they engaged one another on the methodology. Live witnesses of teachers in class were arranged and observations were made. The teachers' preparations were examined, where after the participants engaged one another further on the methodology. Once consensus on the methodology was reached, further meetings were arranged.

Timetables were requested from the school, indicating the time slots for specific subjects. The focus was to visit teachers teaching mathematics, physical science, business studies and English. The purpose of choosing these subjects was that they all had two teachers from different generations teaching the subject. This gave the research team the opportunity to visit the two teachers while they were teaching to

compare the way they communicated in class. With the permission of the teachers, it was agreed that video recordings would be made and, in some cases, observation would be done. After having observed or recorded all the presentations, the team held meetings to reflect. This also involved the teachers who had been observed.

After the team had visited the teachers in class, they held meetings with these teachers to discuss the different methods they had used. The strengths and weaknesses of each method were identified. This encouraged the teachers to examine their acts and to come up with solutions to solve the challenges with regard to communication skills. This encouraged them to collaborate with their colleagues in order to solve their problems.

3.9.5 Step 5

After the data had been generated, the data were subjected to scrutiny, analysed and interpreted. Using the different types of technology, descriptive accounts of the data gathered were drawn up. The participants had to come to some consensus on the method for interpreting the data. This involved the examination of data in relation to potential resolutions to questions or problems. The method of interpreting also had an impact on the analysis. Hence it was important that the participants compromised and reached consensus. Once the various generations of teachers were involved in the analysis and interpretation of the data, a better understanding of one another and their communication skills was indeed achieved.

3.9.6 Step 6

The various analyses and interpretations in Stage 5 of PAR took the participants to results. These results were then used to formulate findings. The data comprised various discourse texts that were analysed using criteria such as the choice of words of the teachers, gestures when texts were video recorded, the responses of the learners when they were video recorded, the quality of illustrations, the use of humour, the effectiveness of the use of ice breakers, if any, repetition and the use of recapitulation as a mechanism to establish or reiterate major messages of the lesson.

3.9.7 Step 7

The seventh step involved taking action with the findings of the research, because the ultimate goal was to improve the participants' quality of life. This may create awareness on the lack of communication skills of teachers to the Department of Education and how it could be improved through multigenerational collaboration. In the end, this may lead to new policy formulation and programme development (Nelson, Ochocka, Janzen & Trainor 2006:257). After having discussed the solutions with the concerned teachers, the team reported its findings to the principals and the heads of divisions. This was done to create awareness in the school of shortages of technological devices and the lack of technological knowledge displayed by the Baby Boomers. By doing this, SMTs were also encouraged to enforce collaboration among teachers by pairing different generations together in teaching particular subjects.

3.10 Description of the two sites

The two schools were randomly selected by the researcher because they were situated next to each other. At both schools, the four generations of teachers were identified for the purpose of the study. Kananelo School had been declining in terms of learner performance. However, since a millennial had been appointed to head the school, slight improvement has been noticed since he had taken over leadership of the school. The school has Grade 10 to 12 learners and a roll of 1 500 learners. The teacher component is 63. The pass rates for the period ranging from 2012 to 2016 are as follows: 65% in 2012; 68% in 2013; 71% in 2014; 81% in 2015; and 82% in 2016. The percentages of the different generations are as follows: Baby Boomers 15%; Generation Y 45%; Generation X 35%; and Generation Z 5%.

Reathusa School also has Grades 10 to 12. The learner population is 950, with the staff totalling 43. The school is also headed by a millennial. The school presented its first matric cohort in 2017. The generational composition of the school is as follows: Baby Boomers 45%; Generation Y 25%; Generation X 20%; and Generation Z 10%. These schools were chosen because they had a fair proportion of the various generations of teachers, which would help to determine whether their collaboration could help improve communication skills. Another factor that encouraged the researcher to select these schools is that she had taught the principal of Kananelo

SSS and had mentored the principal of Reathusa SSS where she previously had been the principal. The researcher was encouraged that if the strategy could help to improve the teachers' communication skills, they would be empowered to bring about the transformation of their society through democratic means.

3.11 Human and physical resources in data generation

Much in this study depended on the views of the co-researchers and the documents analysed. The co-researchers formed a coordinating team for the research. The researcher was the leading member of the coordinating team.

3.11.1 The coordinating team

This section deals with the comprehensive plan drawn up to guide the operations of the team in achieving the objectives of the research. This covers the planning by the researcher before the establishment of the coordinating team and later, the activities of the coordinating team.

The coordinating team was established through negotiations with various stakeholders. The team comprised principals, teachers, community members and learners. The two schools were randomly selected by the researcher based on their proximity to each other. The priest and the businessman were referred to the researcher by the two principals. The researcher met face to face with the principals to explain the purpose of the study and to inform them that their support would benefit society. Their participation established them as co-researchers helping the researcher define the problem, obtaining solutions and implementing the solution that suited the problem.

The religious leader identified was involved in supporting the two schools and had a spiritual relationship with the two schools. The researcher first identified Kananelo SSS and Reathusa SSS as research sites. Eight teachers belonging to different generations were identified at the two schools. The researcher contacted the teachers from Reathusa to be part of the coordinating team. Reathusa and Kananelo provided two learners each. The teachers were included in the team because of the subjects they taught. The focus of the research team was on the following subjects: English,

business studies, mathematics and physical science. The businessman was approached, as he had been supporting the schools with financial resources in times of need. It was agreed that all the parties had to sign consent forms.

A coordinating team was chosen because it would provide a rich history about the schools and their performance, experiences and other perspectives that would benefit the study (cf. Schurink 2010:490). As PAR allows co-researchers to be part of the solution to their problem, this coordinating team would help the teachers engage with other co-researchers in order to find solutions to the problem. This team formed the critical component of the facilitation of synergy in the activities of the co-researchers, as the co-researchers had diverse backgrounds. Through PAR, the team would be helped to act wisely and avoid irrationality, falsehood, harm, waste and injustice. In turn, it would source new ideas for practice and new ways of doing things and develop new relationships between those involved (cf. Kemmis 2010:424). This is essential for enhancing collegiality to reduce unnecessary conflict (Ehlers & Lazenby 2010:6). A mutual relationship was formed among the coordinating team members with the emphasis that they were all equal and had to make democratic decisions.

The coordinating team was responsible for the identification of key issues requiring immediate attention. To achieve the set goals, the team had to set time frames in which some of the key issues had to be achieved, draw up a plan and include key inputs from other co-researchers. In addition, they were empowered to realise and implement the mission and vision of the team (cf. Boyle, Haller & Hunt 2016:1). To ensure the sustainability of the team, it was necessary to take into account ethical considerations that might affect the study if they were not properly followed. All the team members signed consent forms with a clear indication that they were at liberty to withdraw their participation if their rights were violated. The researcher also informed them about the purpose of the study, issues of confidentiality and anonymity and any other information that they could provide to the coordinating team.

3.11.2 Credentials of the learners

The participation of learners is believed to be important for learner development, the implementation of school interventions and the understanding thereof in society. The researcher felt that it was necessary to include learners in the team. A request was

made to the principals to identify learners that could be part of the research team. The two principals of the schools identified and recommended learners who attended school at either Kananelo or Reathusa They were selected on the basis of one learner being the best in the classroom and the other being in the middle in terms of performance.

It is important to nurture adolescence because it is a critical period for making choices in life. Article 12 of the United Nations Convention on the Rights of the Child (UNICEF 1989) states that children should be allowed to express themselves in matters that affect them and that their views should be given due weight in accordance with age and maturity. For learners to understand how they are expected to express themselves, they depend on their understanding of complex social issues, such as diversity. PAR was used to empower them, and the team was careful not to use them as tokens but to recognise the differences in power and status in the research team. Some team members believed in negotiated participation and being equitable rather than equal participation. Power and status differentials between researchers and coresearchers were recognised, especially with regard to knowledge and expertise in PAR. The co-researchers advocated for the maximisation of opportunities for the learners' inputs through innovation and engaging them as co-researchers. Through this, their ability to communicate their perspectives at the important points of data generation and interpretation was enhanced. The researcher chose the experiential process carefully to engage the learners as active co-researchers in the creation of their own world of meaning and to build a relationship of trust in the research team where both the learners and facilitators could explore complex social processes in the school environment.

The researcher carefully informed the learners of the research ethics, anonymity, confidentiality and protection from harm. They were granted informed consent from their parents or guardians in all the research activities. They understood that they could withdraw from the research at any time. Pseudonyms were used in reporting on the research. The facilitators understood the learners' vulnerability in researching the power dynamics between adult researchers and minors.

3.11.3 Credentials of the religious leader

The religious leader was recommended by the principals of both schools. He had served the school communities for a number of years. He was well known and respected by the community. He played a very important role in providing support and the mobilisation of other members in terms of issues of morality. As he had been providing support to the two schools, his relationship with the teachers was very positive. Since there is great respect for charismatic churches, the researcher included such a leader to provide moral support in the study. His inclusion also helped to make the teachers realise that their participation would bring transformation in the way they taught. The religious leader also provided counselling and motivation to most of the learners and was therefore regarded as a father of pastoral care. He was carefully selected, while at the same time he was developed to gain new knowledge by engaging in the research process. He was carefully informed of the research ethics, anonymity, confidentiality and protection from harm. He was granted informed consent in all the research activities. He understood that he could withdraw from the research at any time. Pseudonyms were used in reporting on the research.

3.11.4 Credentials of the teachers

Purposive sampling was done to select eight teachers teaching English, business studies, physical science and mathematics and representing the four generations (X, Y, Z and Baby Boomers) from both schools. The teachers were selected because they could provide insight into the purpose of the study due to their first-hand experience of teaching the subjects. The principal of Kananelo was replaced by the principal from Katleho because he could not find the time to participate. Even though the initial intention was to use teachers and principals from the same school, the researcher had to seek assistance from Reathusa SSS.

The inclusion of teachers encourages networking (Hlalele & Tsotetsi 2015:154), thereby enabling them to share problems in their respective subjects. In addition, the different generations are able to collaborate. Grundy (1994:23) states that by engaging teachers in action research, they would improve their pedagogical practice and would be offered a set of principles upon which they could improve the learning environment of their schools. The teachers were informed of the research ethics, anonymity,

confidentiality and protection from harm. They were granted informed consent in all the research activities. They understood that they could withdraw from the research at any time. Pseudonyms were used when reporting on the research.

3.11.5 Credentials of the businessman

The business person was recommended by the principals of Reathusa and Kananelo. He was a community member who was respected by the community because of his commitment to educational matters. He was instrumental in motivating schools to perform well and supported them financially. Including him helped to hold the teachers accountable to parents for their performance and also strengthened the presence of the parents in the school. When the matric results were announced, he bought flags displaying the percentages the schools had obtained. He had also initiated mobile tuckshops for the schools. The businessman was informed of the research ethics, anonymity, confidentiality and protection from harm. He was granted informed consent in all the research activities. He understood that he could withdraw from the research at any time. Pseudonyms were used in reporting on the study.

3.11.6 Credentials of the researcher

The researcher was a retired school principal who had been a teacher for 35 years. She had been responsible for a school with a total number of 1 700 learners and 63 teachers. The school had learners from Grade R to Grade 12. She had also been involved in managing three generations of teachers at the same time. This made her realise that the various generations of teachers had different strengths and weaknesses when communicating, and if these were enhanced through collaboration, their communication skills could improve. The role of the researcher was to coordinate the activities of the coordinating team, ensuring that the team members knew their roles and responsibilities. In addition, she acted as a resource person providing guidance where necessary.

3.12 Tools for generating data

The research team had to have at its disposal specific tools to collect data. Video and voice recordings were used in this study. The speech acts of various participants

provided the researcher with a fertile field for data. Documents such as lesson plans also provided the researcher with a rich base for collecting data in the study.

3.12.1 Video and voice recorders

In order to get to the bottom of a problem, data generation is a very important step that enables co-researchers to decide on what action to take. According to Whitehead and McNiff (2006:127), video data recording validates classroom sessions and meetings and can show the participants doing their work, which can help co-researchers move beyond pictures to real visual pictures of reality.

In this study, video and voice recorders were used to generate data. These were used to record the spoken words as well as observable actions of teachers, which enabled the co-researchers to organise them in a way that made them useful to identify trends and themes. The videos and voice recordings were useful references after the meetings had taken place or when the coordinating team needed clarification. The coordinating team also observed the video-recorded information of the teachers in class. The video-recorded information enabled the co-researchers to see the differences among the different generations and form meaning that made sense of the situation.

3.12.2 Document analysis

In order to make sense of the way the different generations communicated, the team analysed lesson planning documents, assessment records and general administrative work done by different generations. This was done in order to understand the different approaches and attitudes towards the (written) communication skills adopted by the various generations. It also helped the team to understand the different attitudes of the various generations towards the statutory requirements of their profession as far as communication skills were concerned.

3.12.3 Participant observer

Another method of generating data is that of being a participant observer. A participant observer conducts research in a social group by joining in situations and becoming a member of the group he or she is studying (Hayes 2000:124). This allows the

participant to get to know the people concerned and find out what is going on from the point of view of the participant. During such observation, the researcher records important moments and facts, which are then translated into themes after observation. It is, however, very difficult to record data in this way. Researchers have to keep diaries and record the significant events of each day and, at the same time, video record what is happening and have it available as backup. In this study, the researcher had to obtain full consent from the co-researchers before recording or observing them. Some of the teachers were uncomfortable about this, especially because they knew she had worked for the Department of Education as a headmistress.

3.12.4 Free attitude interview technique

Conducting interviews is a useful medium of collecting data in social sciences. The essential purpose of interviewing is to seek information face to face, except in cases of telephone interviews. An advantage of conducting interviews is that it gives the initiator a far better opportunity to gauge the truthfulness or other qualities of the respondent than other data collection methods employed. According to Meulenberg-Buskens (2011:1), a free attitude interview is person-to-person interaction that is unstructured or non-directive, where the interviewer asks questions based on either written or mental notes regarding the topics of interest in the study. The interviewees are allowed to talk informally as they would in their day-to-day conversation, and formal questions are not allowed as in a positivist research mode (Meulenberg-Buskens 2011:1). Free attitude interviews are not characterised by a set of rules and procedures. The introduction, instructions and method of asking questions are left to the discretion of the interviewer, even though the interviewee is asked to obtain information in some questions. The advantage is that data collection is flexible and versatile because the researcher is able to obtain information that would otherwise not have been obtained (Hallinger & Murphy 1986:336). Versatility provides the interviewer with access to a wide variety of insights about the participants in this social situation.

The team applied the principles expounded by Meulenberg-Buskens (2011:18), which allowed the co-researchers freedom to speak about their experiences, thereby allowing the team members to gain an understanding of their world. The coordinating team members were able to observe their body language. The whole interview took

some time because some of the questions had to be repeated many times in order to get to the gist of the question. The information obtained had to be confirmed through a reflective summary by the co-researchers, as suggested by Meko (2013:120).

This enabled the teachers to openly discuss the need, challenges, threats, strategies envisaged and the indicators of success when different generations of teachers collaborate.

3.13 Data generation

The research team discussed the challenge that had been identified, namely a lack of communication skills. This was confirmed by team members who felt that it was caused by various other factors. The co-researchers planned to solve the problem. The research process was organised to start in August 2016 and to be undertaken in phases until December 2016.

The team used a multiple case study design. It was agreed that they would use various tools to establish why communication skills were lacking and how the problem could be solved. The team used free attitude interviews to informally obtain information on the schools. The team agreed that the teachers teaching the identified subjects would be paired according to generations – a Baby Boomer with any of the other generations. This was followed by observing the teachers in class using a video recorder, archival data and, in some cases, interviews. The team agreed to summarise the behaviour of the individual and the group. There was the pre-test where an individual was observed and the post-test where they worked as a group comprising the Baby Boomer and any of the other generations. In addition, it was agreed that the team would look at general administration, lesson planning, presentation and assessment. In order to make inferences about the process, the team relied on interaction. The team used self-assessment, peer assessment and whole-group assessment.

A meeting was held with the teachers to introduce the objectives of the research and the methodology that was to be applied. A multiple case study method was used to generate data. This involved observations in the classroom, checking policies and records, video recording and conducting pre-tests and post-tests. In addition, the research method involved observing the teachers' way of communicating with the

learners as well as the learners' responses. School records and policies were also checked by the team.

3.13.1 Case study 1

The team collaboratively planned to observe the business studies teachers, Mrs Alberts and Mrs Beauty, presenting growth strategies and the English teachers, Mrs Jane and Mrs Johnson, presenting lessons in class. They decided to observe and video record these teachers while teaching to generate data. A meeting was held with both teachers for each subject presentation thereafter. It was agreed that the main object was to make sure that the learners understood the topics as taught by the two teachers.

3.13.2 Case study 2

The second case study involved the team analysing the programmes the schools had developed for extra classes. The records were analysed to establish whether the teams were able to communicate well.

3.13.3 Case study 3

The co-researchers decided to video record mathematics teachers belonging to two different generations. This was done to establish whether the mathematics teachers shared learning. Mr Dolphin had difficulty with teaching Grade 8 learner's factors. The mathematics question was: Which number is a factor of 8?

5 3 2 6

His answer was 6, which was wrong. He did not understand what a factor was. He approached Mr Ben and Joseph. They showed him by explaining it this way:

- One has to divide all the numbers into 8 and see which one divides evenly.
 - 8 divided by 5 = 1r3 No
 - 8 divided by 3 = 2r2 No
 - 8 divided by 2 = 4r0 Yes, 2 divides evenly into 8
 - 8 divided by 6 = 1r2 No

3.13.4 Case study 4

The team decided to analyse and observe how the appraisal system was conducted at both schools. The documents were analysed in order to see whether the teachers were implementing the appraisal system as a team. This was followed by the analysis of the time register.

Table 3-1: Teachers' time register

Name	Arrival	Arrival	Arrival	Arrival	Arrival
	time	time	time	time	time
Lencoe, A	7:00	7:00	7:10	7:15	7:00
Jack, P	6:30	7:00	7:00	7:20	7:20
Beauty, N	8:40	9:55	9:30	9:00	9:00
Leeuw	7:10	7:10	7:20	7:15	7:15
Bolofo, R	7:00	7:15	7:20	7:25	7:00

3.13.5 Case study 5

The team checked the planning, preparation and presentation done by Mr Black and Mr White, teaching art and languages respectively. This involved checking their records and observing them in class. This was followed by checking the policy and the programmes for educational tours. The team also observed the science teachers performing a science experiment in class.

In order to make inferences about the processes, the team compared two teachers belonging to different generations and relied on the effectiveness of the interaction. To analyse this interaction, discourse analysis was used. This ended with the segmentation and coding of the data into patterns. The analysis revealed that the schools lacked dedicated teams, teachers failed to share goals, no teacher development was being done and teachers failed to share their learning and pool their resources together.

3.14 DATA ANALYSIS

3.14.1 Textual analysis

In CDA, each utterance is believed to have a social function that is textual and interpersonal. Therefore, each utterance can be analysed for its mode (method of

presentation), tenor (interpersonal relation) and field connection to the social world (Rogers 2004:57). On the other hand, Van Dijk (1995:18) maintains that textual analysis analyses the grammar and semantics that dominate the conversation at that moment. When it is used correctly, it can help the marginalised to detect any effort by the powerful to reproduce, enact and legitimise dominance and inequality in order to maintain their cycle of oppression and dominance over them (Van Dijk 2008:13). The intention of CDA is to uncover power relationships and demonstrate the inequities entrenched in society with the belief that the uncovering of power relations in their analysis may lead to disrupting power relations in the social context (Rogers 2004:59). In addition, Chouliaraki and Fairclough (1999:151) say CDA addresses social problems and tries to solve social problems through analysis and accompanying social and political action.

In analysing the texts, the coordinating team focused on analysing the interaction of the four generations and analysed the lesson preparations they submitted, as well as homework books of the learners taught by them. These comprised a range of materials, including both oral text and written text collected in the classroom to investigate the process of teaching and how the generations interacted with one another and how they interacted with the learners.

According to the cognitive perspective, knowledge resides in our minds; therefore, textual analysis brings about changes in our knowledge. When analysing the texts, the team went beyond the sentence level, as there were aspects of language that could not be understood if these were limited to the syntactic analysis thereof (cf. Payman, Ahmad Reza & Masond 2016:90). It was noted that Generation X had access to technology through the use of cell phones, which improved their technical communication skills, which was not found to be the case with the Baby Boomers.

Tharp (2015:2) points out that textual analysis can change people's beliefs, attitudes and values, as texts have a casual effect upon people's beliefs, social changes and the material world. Social constructivism emphasises the role of text in the construction of the social world. Textual analysis needs to be framed in respect of social analysis, which considers bodies of text in terms of their effect on power relations (Fairclough 2003:14). Most Baby Boomers have studied and grown up during the apartheid era, where abuse had affected their minds through control over the means of discourse

and communication when the dominant white minority influenced the structures of text in such a way that their knowledge and attitudes, norms and values were directly affected in the interest of the dominant group.

Textual analysis contributes to changes in education or industrial relations because language is assumed to be part of social life and, through communication messages, leads to educational reform. Through textual analysis, it is necessary to let all generations have access to alternative information to oppose messages they get through the manipulation of mental models of social events through discourses such as news headlines.

In analysing the text, the coordinating team used the seven tools for critical discourse provided by Gee (2011:30). The team first determined what was significant and how language was being used. This was done in order to establish whether there was a dominating generation whose language was governing. It was noted that the identities of the dominating speakers influenced the way people used language. The Generation X teacher used technologically inclined language, which ended up influencing the other teachers either positively or negatively. The team also analysed how language was used to build relationships. Teachers using the same mother tongue are inclined to converse and are able to share resources. This helped the team to unearth hidden power relations that hindered communication among the teachers, because in this way language was used to create divisions.

Fairclough (2003:11) warns that there is no analysis of text that can be said to be complete, objective and definite. In analysing the text, the coordinating teacher looked at the interpretation of the text as well as the texts themselves, because sometimes texts are used to oppress people by those with power. Some questions about societal events were asked, but others not. The participating teachers were given the opportunity to share their stories as to how they ensured that effective learning took place using their communication skills.

3.14.2 Social analysis

Social analysis involves critically analysing the way language is applied for interaction at social level in order to resist or legitimatise power, inequality and dominance in

society (Van Dijk 1995:18). This discourse is intimately related to the distribution of social power and the hierarchical structure in society. Discourses can lead to the acquisition of social goods in society (Fairclough 2003:15). Discourses empower those groups that have the least conflict with others. A coordinating team needs to understand the power knowledge operating among teachers. As analysts, the team has to understand the relationship between language form and function, as well as the history of the practices that construct present-day practices (Rogers 2004:57).

The role of social structures in CDA requires the analysis of the micro- and macrostructures of society (Fairclough 2003:14; Wang 2014:268). This entails understanding individual social actors and how they interact in society, as well as social groups, such as organisations, and their relations to power and dominance (Luke 2002:99). Social interaction can only be made possible if members share knowledge or ideas.

In this study, the coordinating team conducted social analysis to establish how social variables, other than age, played themselves out as conditions that influenced discussions. This included the ability to work with others and creating an atmosphere conducive to democratic participation by learners, teachers and community members. It was further done to establish whether there was any generation that limited the freedom of action of the others, thereby influencing their knowledge and attitudes through the use of language. It also helped to guard against generations that had access to technical skills or institutional knowledge manipulating or giving commands or threats to those generations that lacked technical skills. In analysing the data, the coordinating team looked at the way the teachers used their ideologies and power to prescribe and control the marginalised groups, thereby denying them a voice regarding their communication skills.

3.14.3 Discursive acts analysis

In analysing discursive acts, it is important to note that not all social acts are discursive and more in-depth analysis of speech has to be made (Caldas-Coulthard & Coulthard 1996:85). By watching the video-recorded material, the coordinating team was able to do a thorough analysis of all the discursive acts and was able to detect assertions,

threats and discursive interactions, such as agreeing and interceptions in the opening and closing of conversations.

The study of the language in action was to examine the properties of their management, thereby assisting them in producing a particular social order through discursive interactions. It was noted that through the analysis of language, teachers used the properties of language to reveal their active construction of reality. The language used by different generations was analysed to check whether there was any struggle for power among them and in the schools. It was, however, noted that there was a dominating behaviour depicted by Generation Z because of technical knowledge. Baby Boomers were noted to experience challenges because they lacked access to technology and were unable to integrate computer usage in their teaching. The costs of communication networks restricted their access to communication. This observed control by Generation Z over the actions of the other generations limited their freedom of action, thereby influencing their knowledge.

3.15 SUMMARY OF THE CHAPTER

This chapter emphasised the design, the elements and the value of PAR as a suitable methodology for this study. The research design focuses on the co-researchers and their roles and responsibilities in order to suit the data generation and enable planning, implementation and reflection. It was further necessary to discuss the role played by the researcher and her relationship with the co-researchers. This was done in order to indicate that the co-researchers were operating from the same level. Three methods were used to generate data, namely free attitude interviews, video and audio recording and participant observation. CDA was used to analyse the data, focusing on textual, discursive and social analyses. CDA allowed the co-researchers to explore and model their views and knowledge about the world, using a multidisciplinary approach, which was supported by bricolage. The next chapter deals with the data analysis, data presentation and the interpretation of the findings.

CHAPTER 4: DATA PRESENTATION, ANALYSIS AND INTERPRETATION OF RESULTS

4.1 Introduction

The study aimed to design a strategy to facilitate multigenerational collaboration among teachers to improve their communication skills for teaching. In order to operationalise this aim, this chapter presents findings from the generated data and describes how the data were analysed to design an effective strategy for facilitating multigenerational collaboration among teachers towards improving their respective communication skills for teaching. Data are presented, analysed and interpreted according to the five objectives identified in the study. This is done in order to justify the need to employ multigenerational collaboration in improving communication skills for teaching. It is also done to analyse the challenges encountered when using multigenerational collaboration with the view to develop strategies to use in improving communication skills for teaching. The conditions under which the strategies and solutions are to be implemented are then analysed to be clearly understood. Lastly, the indicators of success and benefits derived from the envisaged strategy are discussed to ensure that they are truly in line with the strategy.

To gain a deeper understanding of each of the objectives, they are subdivided according to subheadings corresponding to the constructs identified in Chapter 2. These are organised with the introduction of each objective discussing policy, theory, findings from previous researchers and legislative imperatives. Extracts retrieved from empirical data are then analysed in the context of the opening paragraphs, in that way trying to prove their relevance to the study. To further confirm the reliability of the evidence provided, evidence against the findings is reflected by the co-participants' conversations and demonstrable data from the text.

For the analysis and interpretation of data, the team used CDA. According to Rogers (2004:57), CDA is used to analyse how language at the contextual and social structural level is used to unearth interpretations that are informed by the way society is organised. In addition, Rogers (2004:59) and Van Dijk (1995:18) discuss how at the textual level, it is used discursively to uncover the elements of dominance, power

relations and inequality. This is done in order to avoid change but maintain the status quo between the powerful and the less powerful.

Furthermore, the evidence is interpreted using bricolage in order to understand the challenges a multigenerational teaching staff faces and enables participants to embrace flexibility. This empowers them to examine the phenomenon from multiple theoretical and methodological viewpoints (Denzin & Lincoln 2005:100). In addition, it uses the level of analysis to assess how power, hope, social justice and emancipation relate to the problem identified (Baker & Nelson 2005:330) and emphasises that knowledge is socially created by both the researcher and the participants (Bayne 2009:566).

This chapter concludes by showing the key findings that will be used to design the envisaged strategy so as to facilitate multigenerational collaboration among teachers to improve their communication skills for teaching. In conclusion, the author presents and discusses the findings of the empirical data in order to find out if they disprove or connect with the literature reviewed.

4.2 IDENTIFICATION OF THE CHALLENGES INHIBITING EFFECTIVE MULTIGENERATIONAL COLLABORATION AMONG TEACHERS RESULTING IN POOR COMMUNICATION

In this section, data related to the key aspects that constitute the need to develop a strategy to facilitate multigenerational collaboration among teachers to improve their communication skills for teaching are discussed. Before the intervention of the team, in the first objective, the members identified a lack of a dedicated team, failure by teachers to set goals together, a lack of a positive attitude towards problem solving, no development of teachers, failure by teachers to share learning, failure by teachers to pool their resources together and a lack of induction and mentorship of teachers. These challenges are discussed below for a deeper understanding thereof.

4.2.1 Lack of a dedicated team that facilitates multigenerational collaboration to improve communication skills

Team-based learning follows the principles of the constructivist learning theory in that it promotes effectiveness of teaching and focuses on and considers the previous learning done by the learner as a foundation upon which to modify, expand and build new knowledge (see Section 2.3.2.3). Young and Craig (2015:519) indicate that teams enable teachers to learn from one another, foster critical thinking skills, enhance empowerment, implement hands-on problem-solving skills and provide a comfortable environment in which to grow (Mandel & Eiserman 2016:76). In addition, teams assist in monitoring the effectiveness of the appraisal systems of teachers (Education Labour Relations Council 1995:5; Middlewood & Cardno 2001:98), restore quality schooling and a culture of teaching, help to develop the professional quality of a teaching force (which includes conceptual, content and pedagogical knowledge necessary for effective teaching), enhance the competence and professional skills of teachers and help to develop mutual respect. Teams also promote effectiveness of teaching and encourage social interdependence (Mabokela & Mawila 2004:375).

Team-based learning enables teachers to learn from one another and is a foundation upon which new knowledge is expanded and built. According to Michaelsen *et al.* (2002:3), using teams has the advantage of individual teachers being willing to commit to high levels of effort in their learning, with members of the team being able to solve difficult and challenging problems.

The co-researchers identified the absence of a team. In order to get more information, they started with the business studies teachers. They allowed them to speak about their experiences of the subject while the team observed their body language. The teachers explained their challenges, the strategies they were trying to implement, the threats they envisaged and factors that would indicate whether they were successful or not. Some of the questions were repeated so that information could be confirmed. To generate data, the team decided on observing and video recording them while teaching.

(A) The team collaboratively planned to observe the business studies teachers, Mrs Alberts and Mrs Beauty, presenting growth strategies. A meeting was held with

both teachers present. It was agreed that the main object was to make sure that the learners understood the growth strategies. It was decided that they would be video recorded while teaching.

(B) Mrs Alberts was an elderly teacher who tried to teach the different growth strategies using the old method of the textbook and chalkboard.

Mrs Alberts: Jane, read from page 17 of your business studies textbook.

Jane starts reading from paragraph three to four. The two paragraphs describe growth strategies.

Mrs Alberts: Which line from the paragraphs reflects market penetration?

Learners: (Confused). What is market penetration? Is it the same as diversification?

Mrs Alberts: No. Read the paragraphs again and see if you cannot find the explanation of market penetration.

Learners are more confused and give wrong answers.

Mrs Alberts tried to explain market penetration and market development, but one learner, Jane, indicated that she was confused and could not see the difference – "What are growth strategies?" This became difficult for Mrs Albert to explain and led her to repeat what was in the textbook on the chalkboard. She failed to expand and build on new knowledge. She could not clearly explain what growth strategies were. She tried reading from the book but could not get the answers. She referred the learners back to the book, but still they were confused.

Teacher: (Referring to the book.) Jane can you read from page 15 for us.

Jane reads the pages.

Teacher starts writing notes on the chalkboard.

Some learners start making noises.

Teacher: Keep quiet and take down the notes on the chalkboard

This had the effect of leaving learners behind without any interaction. At the end of the period, no clear explanation of growth strategies had been given to the learners except for notes from the textbook, which left them even more confused. The teacher failed to promote the effectiveness of her teaching. Her presentation displayed a lack of

insight into the strategies. Even when the learner displayed confusion, the teacher failed to present examples in order to enable the learner to understand the concepts better. Had Mrs Alberts collaborated with the other teachers, she could possibly have found help.

(C) The following day, the team visited Mrs Beauty, a Generation Y teacher, teaching the same subject to a class. She was also teaching growth strategies but used computer games activities to teach the strategies. She depicted the games on the wall using a data projector.

Table 4-1: Growth strategies

Developing existing market (a)	Market penetration	Product development
Developing new market (b)	Market development	Diversification

Game 1	Game 2
From the diagrams, choose what you would do to directly attack your competitor: - Getting into the unoccupied market - Securing relationships with suppliers - Slashing prices - Introducing new features - Eliminating the rival by purchasing it	Match the following concepts to explain the activities in Game 1:
Game 3	
Give examples: - Direct attack One supermarket reducing its prices to beat the competitor - End run Selling your products in new countries - Pre-emption Securing relationships with the best suppliers - Acquisitions Purchasing your rival	 SPAR reducing the prices of its cold drinks and mealie meal to beat Pick 'n Pay prices SPAR opening a shop in a neighbouring country, e.g. Lesotho SPAR securing good relationships with its suppliers to get best the prices and quick deliveries SPAR merging with Pick 'n Pay

Mrs Beauty: Lonwabo, from Game 3, indicate to us other examples of acquisitions not indicated that you know.

Lonwabo: Shoprite Checkers and Amalgamated Banks of South Africa. Mrs Beauty: Using Google search, which of the strategies can best be used outside SA?

From her pictures, there were clear indications of the two growth strategies: 1) developing existing markets through market penetration and product development, and 2) developing new markets through market development and diversification. She continued playing Games 1, 2 and 3 with the learners. Everyone had a chance to play.

After the two lessons had been presented, the co-researchers held a meeting with the two teachers. In line with PAR, the participants had to be part of the solution to the problem. The purpose was for the teachers and the team to reflect on the strategies used when the lessons had been presented, regardless of whether they had been successful. If not successful, the team discussed the strategies that could be used to improve them. The team first analysed the strengths of Mrs Albert's and Mrs Beauty's presentations, followed by the weaknesses. Strengths such as order in the classroom were reflected for Mrs Alberts. Interaction with learners was revealed as a strength for Mrs Beauty. The two teachers agreed that they both had lessons to learn from each other. The team then indicated that the two teachers should plan together and use the same resources or even previously used materials to prepare a lesson. If necessary, Mrs Alberts could attend Mrs Beauty's presentation. This encouraged them to work as a team.

As a techno-constructivist teacher, the Generation Y teacher had the advantage of integrating technology to complement and redefine the curriculum. She used the computer game activities to teach, and more examples of strategies were given by the learners, which indicated that they were empowered to identify the strategies found in their own environment, for instance Shoprite which had amalgamated with Checkers. This had the benefit of keeping the learners motivated and captured, as indicated by an example given by one learner when he said: "Amalgamated Banks of South Africa is an example of a growth strategy, of purchasing your rival." However, the way the two presentations had been given indicated that the teachers were working in silos and failed to consider their previous learning as a foundation upon which to build or

expand on new knowledge, as each of them had presented her lesson differently. They failed to learn from each other.

(A) The co-researchers then visited the English teachers. Before their presentations, they were given the chance to explain what challenges they had and how they would solve the challenges. This visit was to confirm and show the lack of a dedicated team between these two generations. The team observed that in one class, a Baby Boomer, Mrs Jane, and a Generation Y teacher, Mrs Johnson, had divided the presentation of the poem into two.

Night of the scorpion by Nissim Ezekiel

- 1. I remember the night my mother
- 2. Was stung by a scorpion.
- 3. Of steady rain had driven him
- 4. To crawl beneath a sack of rice
- 5. Parting with his poison
- 6. Of diabolic tail in the dark room
- 7. He risked the rain again
- 8. The peasant came like swarms of flies
- 9. And buzzed the name of God a hundred times
- 10. To paralyse the Evil One
- (B) In order to foster critical thinking skills, Mrs Johnson split the poem into lines. The scrambled poem was then put in two envelopes and the learners were asked to use every word, creating different patterns. They then formed work stations where they discussed each word.

Lerato and Kutlwano's group: This group had lines 1, 5, 8 and 9. They started by analysing the significance of the following words:

Night and mother (Night = darkness/dusk; mother = love)

Parting and poison = (farewell/final; poison = fatal/toxic)

Peasant and flies (Peasant = labourer; flies = wings)

Buzzed and God (Buzzed = sang; God = spirit)

Using their computers, they were asked to create sentences and write their own poems using the scrambled lines, for example "darkness and love", "farewell and fatal", "labourer flying" and "sang in spirit". This fostered critical thinking skills, and the learners were able to solve the problem and interpret the poem successfully. This

group, however, lacked an experienced teacher to explain the role played by poetry in their lives. The teacher also failed to explain the figurative language used in the poem.

On the other hand, Mrs Jane, the Baby Boomer, started by testing the prior knowledge of the learners on poetry.

Baby Boomer: What is a poem?

Dineo: It is a piece of writing where one expresses one's feeling.

Baby Boomer: Good. What is important about poetry?

John: Helps us appreciate the world around us like the poem I did in Grade 4, "The Daffodils", which indicates that you do not only get happiness from people but even by watching flowers.

After the teacher had established the learners' prior knowledge, she continued to explain the figurative language used in the poem. She created a mind map and projected words such as "stung", "parting", "buzzed" and "swarms of flies" and asked the learners to indicate the figurative language used.

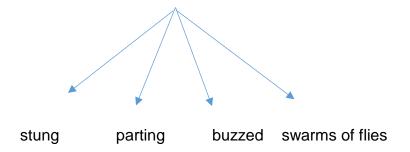


Figure 4-1: Mind map

By projecting the mind map and asking the learners to use figurative language, the teacher tried to foster critical thinking skills. She then explained that figurative language referred to the use of words or sentences in a non-literal manner to create pictures for the reader. She gave them examples, such as alliteration (stung by scorpion, parting with poison), onomatopoeia (buzzed) and similes (swarms of flies). The indications were that the learners had not understood what their teacher asked. This had the effect of discouraging them, as it was apparent that nobody had taught them figures of speech.

These two teachers failed to work as a team. They failed to prepare the poem together before doing the presentation in their respective classrooms, which had the effect of narrowing the application of their knowledge. They failed to empower each other. But if they had collaborated, they would have been enabled to solve the problem together. They should have used multiple tools (Rogers 2012:4) and embraced a multiplicity of epistemologies (Humphrey 2013:4).

After the presentations, the co-researchers analysed the ways the two teachers had taught the poem. The co-researches and the teachers reflected on the presentation to establish whether the goal had been achieved. The teachers that were presenting the poem had worked in silos, which led to neither the Generation Y teacher nor the Baby Boomer learning anything from each other. Had they worked together, the Generation Y teacher would have been enabled to learn how to manage her classroom from the Baby Boomer, while the Baby Boomer could have learnt from the Generation Y teacher how to use a computer when teaching. This would have encouraged her to work with experienced teachers in order to create something new to empower herself. But this required all team members to be involved in and committed to the team and its values. The co-researchers realised that these teachers needed training to be empowered.

Teamwork is an important part of a successful workplace. When teachers work as a team, they achieve and come up with ground-breaking ways of doing things. They are able to share expertise and teach mutual trust. The co-researchers decided to video record the mathematics teachers.

(C) Mr Dolphin had difficulty with teaching learners factors in Grade 8. The mathematics question was: Which number is a factor of 8?

5	3	2	6

His answer was 6, which was wrong. He did not understand what a factor was. He approached Mr Ben and Mr Joseph. They showed him by explaining it this way.

He had to divide all the numbers into 8 and see which one divided evenly.

8 divided by 5 = 1r3 No

8 divided by 3 = 2r2 No

8 divided by 2 = 4r0 Yes, 2 divides evenly into 8 8 divided by 6 = 1r2 No

After he had received the answer from the other teachers, he thought he could do the questions alone and started distancing himself, while Mr Ben and Mr Joseph kept on working together.

(D) Two days thereafter, one of the team members noted that Mr Dolphin had tried to do another question alone with his learners. This was totally wrong. The question was: Which numbers are factors of 10? Select all.

9	20	6	10

The answer that he gave learners was 20 and 10, which was wrong because 10 divides evenly into 10, so 10 is a factor. These teachers failed to create a comfortable environment in which to grow (cf. Mandel & Eiserman 2016:76). By not working together with the other teachers, Mr Dolphin failed to communicate his problems further, which inhibited mutual respect from developing. These teachers failed to work as a team in order to break down any difficulty that came their way.

The team decided to analyse documents in order to see whether the teachers were implementing an appraisal system as a team. Teams assist in monitoring the effectiveness of the appraisal system of teachers. This helps to identify teachers to be developed. Teacher development is viewed as learning, developing beliefs and ideas, developing classroom practices and attending to teachers' feelings associated with changing (Bell & Gilbert 1994:493). According to Evans (2002:132) and Hargreaves and Fullan (1992:8-9), teachers' attitude towards their work is modified, their professional performance might be improved and they would be kept up to date with their work.

(A) As the co-researchers were busy interacting with members of the staff, they noticed that it was time the teachers were to be evaluated in order to be appraised. Each teacher had already appointed a developmental support group (DSG) whose responsibility was to support the teacher. Most of them had already indicated areas where they needed to be supported and monitored. The personal growth plan of Mrs Green, a Generation Y teacher, indicated the following as her weaknesses and where she needed support:

- Diversity management
- Conflict management
- How to use South African School Administration Management System (SA-SAMS)

A timetable was drawn up indicating when teachers were to have their final submission of documents to their DSGs.

Table 0-5: Timetable for final submission of IQMS for School A and date for class visit

Name of teacher	Date
Mrs Green	15.09.2016
Mrs Lencoe	17.09.2016
Mrs Jane	21.09.2016
Mrs Jack	24.09.2016
Mrs Alberts	27.09.2016

(Extract from the main IQMS timetable)

(B) Mrs Green failed to submit her IQMS documents on the relevant date, indicating they were incomplete. She indicated that the DSG that was supposed to support her had never looked at her file. There were no minutes of meetings held of both pre- and post-evaluations to discuss the challenges she had. Her DSG never considered holding a meeting necessary. Mrs Green's DSG comprised mostly Generation X and Y teachers who were not satisfied with the way appraisal was done at their school. They felt the composition of the staff development team led to subjectivity, as most of the elderly teachers had scored themselves very high. They also stated that one observation did not give a true reflection of one's performance. Mrs Green's DSG failed to monitor the effectiveness of her performance.

Table 4-3: IQMS score sheet for Generation Y

Creation of positive learning environment	5
Knowledge of the curriculum	4
Lesson planning, preparation and presentation	5
Learner assessment	6
Professional development in the field of work.	5
Career and participation in professional bodies	

Human relations and contribution to school development	10
Extra-curricular and core curricular participation	6
Total	41

Total raw score: 112

Table 0-4: IQMS score sheet for Baby Boomer

Creation of positive learning environment		
Knowledge of the curriculum	15	
Lesson planning, preparation and presentation	15	
Learner assessment	16	
Professional development in the field of work.		
Career and participation in professional bodies		
Human relations and contribution to school		
development		
Extra-curricular and core curricular participation	14	
Total	105	

Total raw score: 112

On the other hand, the Baby Boomers differed with the other generations concerning their IQMS scores, because to them, the scores reflected a true record of their performance. They also felt the Generation Y teachers lacked the necessary experience. Before a teacher could be appraised, the DSG was supposed to be mentoring him or her, guiding him or her on how to manage diversity, arranging for SA-SAMS training and, in some instances, engaging him or her in conflict management situations to manage.

(B) Mrs Jack was a Baby Boomer. Her DSG comprised elderly teachers that had been working at the school. She submitted her documents on 24.09.2016. There were minutes indicated that they held their first pre-evaluation meeting and the following were discussed:

DSG: Mrs Jack, Do you know how to develop a personal growth plan?

Mrs Jack: Yes.

DSG: Do you understand what is expected of you in terms of IQMS? Can you also clarify your concerns, if any?

Mrs Jack: My concern is with learner assessment, application of assessment techniques and how to record marks using the computer.

Mrs Jack had been dealing with IQMS for years, as she had worked at the school for 10 years. She knew how to develop a personal growth plan. However, Mrs Green was mentored by a DSG that lacked experience; hence she was unable to adhere to the time set.

Analysing their behaviour, both teachers, the Baby Boomer and the Generation Y teacher, failed to share their experiences as advocated by social constructivism (cf. Henning *et al.* 2005:2). They should have combined their limited resources to make new combinations (Fisher 2012:1020). Thus, they had failed to work as a team.

In order for a team to be successful, parties should build strong foundations through shared understanding (Mackey *et al.* 2017:101). Teamwork requires all team members to be involved. This enables them to solve any difficulty coming their way. However, this was not found to be the case with one of the schools the research team visited. School A was a school with a number of teachers who resided in the neighbouring town. The school had its assembly starting at 7:30. In their staff meeting, two teachers were tasked to be in charge of the two gates from 7:30 to 7:55, when the gates were to be closed. However, many learners arrived between 8:00 and 8:50, and most teachers arrived between 7:00 and 7:20.

Table 0-5: Teachers' time register

Name	Arrival time	Arrival time	Arrival time	Arrival time	Arrival time
Lencoe, A	7:00	7:00	7:10	7:15	7:00
Jack, P	6:30	7:00	7:00	7:20	7:20
Beauty, N	8:40	9:55	9:30	9:00	9:00
Leeuw	7:10	7:10	7:20	7:15	7:15
Bolofo, R	7:00	7:15	7:20	7:25	7:00

(Extract from the teachers' time register)

Table 0-6: Learners' attendance register

Name	Arrival time				
Victor	Absent	Absent	Absent	7:30	8:00
Joseph	Absent	Absent	Absent	Absent	Absent
Benjamin	Present	Present	Present	Present	Present
Mercy	Absent	9:30	9:00	9:30	10:00
Bishop	8:00	Absent	Absent	10:30	9:30

(Extract from the learners' attendance register)

It was soon realised that one of the teachers responsible for locking the gate was also always late; hence the gate was left open. Her behaviour created a problem for the school because it led to all of those who were late using that gate. It became difficult for the school management to restore a culture of learning and teaching, because there was no shared understanding of the roles these teachers had to play in time management. They had to understand that they had to be at school on time, teaching learners and in a safe learning environment.

Teamwork assists in the development of the professional quality of a teaching force, which includes the conceptual, content and pedagogical knowledge necessary for effective teaching. It involves the capability to perform the duties of one's profession (Liakopoulou 2011:2). This requires teachers to have subject knowledge, knowledge of the learners, a teaching methodology and curriculum knowledge.

Mr Black and Mr White, teaching art and languages at the same school, had a discussion on how to enhance competence and professional skills. Mr White decided to have different language weeks. For a particular week, a particular language was to be used. If it was Sesotho week, everyone had to teach in Sesotho, write in Sesotho and read Sesotho books. This would be done to enhance teachers' communication skills. However, his colleague, Mr Black, found it very difficult to reach the level of the children. Mr White advised Mr Black to consider asking learners either to prepare meals representing a particular culture or allow learners to dress according to the culture they represented. By doing so they would be learning different teaching styles.

Table 4.7: Mr Black's art class

Sesotho week	No activity	Teacher absent	Teacher absent	No activity
Xhosa week	Xhosa food	No activity	No activity	No activity
English week	Absent	Absent	Teacher Absent	Teacher absent
Afrikaans Week	Teacher absent	No activity	Absent	Absent
Zulu week	Zulu food	Teacher Absent	Zulu week	No activity
Venda week	Absent	Absent	Teacher absent	No activity

By the end of the week, Mr Black had neither followed the advice nor tried to do so. He failed to display any subject knowledge, as he could not give his learners more activities to practise art. As a teacher, he had failed to develop the professional quality of teaching and learning from other teachers.

A team is built through mutual respect. Team members should respect one another. This is achieved through communication, listening to one another, remaining positive and working together. In School B, the Generation Y and Baby Boomer teachers always differed on various issues to the extent that they sometimes found it difficult to communicate.

(A) Mr Dolphin, a Generation Y teacher, and Mr Ben belonged to a committee that was responsible for educational tours. A plan for different tours was drafted with each member of the committee allocated a role to play.

Table 4.8: Educational Tour Plan 2016

Venue	Date	Responsibility
Rand Easter Show	15.04.2016	Mr Dolphin
Durban	19.09.2016	Mr Dolphin
Garden Route	15.08.2016	Mr Ben
Cape Town	17.09.2016	Mr Ben

One morning, without having consulted Mr Ben, Mr Dolphin made an announcement about the trip to Rand Easter to the learners –

Mr Dolphin: Good day, learners. I want to inform you that the trip to Johannesburg Rand Easter Show is rescheduled for the 27.04.2016.

This information was only known to him. He had failed to communicate it to the other committee members, which reflected a lack of respect for them. He did not want to listen to them. However, Mr Ben remained cool and very positive. The behaviour displayed by Mr Dolphin was not consistent with the behaviour that could be expected from a reasonable teacher and a member of a team. This indicated that he was working alone, which is why he made the announcement without consulting others.

A lack of teamwork is usually displayed by a lack of effective teaching. Effective teaching involves the teacher engaging with learners in class in a way that shows

mutual respect, shares knowledge, provides feedback and gives assessment activities that encourage learning.

(A) At School B, the team observed Mrs Azar, a Baby Boomer, teaching life sciences. Two groups of learners were doing an experiment. They were testing fat from sunflowers and peanuts.

GROUP A GROUP B
Peanuts Sunflower
Ethanol Ethanol
2 test tubes 2 test tubes

Both groups crushed peanuts and sunflowers and then dissolved it with ethanol to get a clear liquid. The two liquids were then added to test tubes with water. A milk-like emulsion indicated the presence of fat.

While the learners were doing the experiments, the teacher was marking activities done the previous day. She failed to engage with the learners in a way that indicated mutual respect. She failed to provide feedback that could encourage the learners to do better. She also failed to provide the learners with assessment activities that could encourage learning through experience.

(B) In another class, a Generation Y teacher, Mrs Yellow, did the same experiments with learners. She explained to the learners why they were using ethanol and water.

Mrs Yellow: Lipids are non-polar organic compounds. They are soluble in an [sic] alcohol like ethanol.

Learner: Why does the emulsion of lipids appear cloudy?

Mrs Yellow: Lipids are insoluble in water and soluble in alcohol. If lipids are dissolved in alcohol and then mixed with water, they form that cloudy appearance.

Learner: Ma'am, is there any other method that we can use to test fat?

Mrs Yellow: Yes, there is, but I want you to get one and we will do the experiment in class.

Mrs Yellow effectively engaged with the learners in the class and provided feedback that encouraged them to do better. The classroom activities encouraged the learners to work harder, as was reflected by the number of questions they asked. This totally differed from the method used by Mrs Azar.

The team also noted that there was no social interdependence among the teachers, because there was a negative correlation among the individuals' goals and achievements. Some teachers believed that they could obtain their goals without the support of others. They failed to understand that as teachers who shared common goals, their success depended on working together.

(A) The Grade 9 class had to pass English and mathematics to be promoted to Grade 10, but one teacher, a Generation X teacher who taught English, did not seem to care whether these learners passed or not. There were 120 learners in Grade 9. Their results in percentages are indicated in the table below.

Table 4.9: Learner results per subject

Subject	%
Sesotho	100
Afrikaans	98
Economics and management	78
sciences	
Mathematics	82
Social sciences	99
Life orientation	100
English	55

Looking at these results, 45% of the learners failed. The failure rate in Grade 9 was caused by learners failing English. This teacher failed to understand that the success of the class depended on whether the teachers were working together.

Analysing these situations at the textual level, it is indicated in the contextual reality that there is a lack of collaboration between the younger and the older generations, as indicated by presenting the same topic differently. A lack of collaboration denies all of them the ability to develop cognitive skills. The lack of collaboration results in many obstacles, such as failing to accept opposing opinions, to accept help, to build trust and to accept feedback. Moreover, they fail to build relationships. This might also have been caused by power struggles among the generations who differed in terms of work ethics and relationships (see Section 2.3.1). Not working as a team denies these teachers the chance to have a common vision. According to Jordan (1994:17), without

a vision of an ideal delivery system, changes would never take place. But if the different generations of teachers collaborated, they would be able to learn strengths from other generations and improve their weaknesses.

Analysing the data at the discursive level reveals that elderly teachers seek to maintain their status quo as historically "superior" or "willing" teachers and are not prepared to learn how to use technology from the younger generation, as this could be construed as a lack of knowledge. There is a feeling of a lack of preparedness to work together, which could be caused by power struggles or a lack of interest, which contradicts the purpose of collaboration and teamwork. Without collaboration, the different generations would be unable to improve their communication skills. There would be no shared values, and teachers would lose their autonomy (see Section 2.3.3.1). Finally, they would be unable to respect one another (Anrig 2013:55). In scenarios where a teacher works alone without the support of the other teachers, the learners' performance is reduced.

There are indications at the social level that older-generation teachers use methods that are outdated and they tend to exclude the younger teachers, as reflected by the rigid discipline they instil in their classes. There is no social interaction between the younger and the older teachers.

Emanating from the discussions above, the study indicates an absence of teamwork among different generations of teachers, which hampers the development of schools. The absence of a team encourages teachers to work as individuals without consulting one another. The finding is that without teamwork and all the benefits thereof, such as sharing knowledge, mutual respect and sharing of resources, improving communication skills will never be realised.

When, however, the different generations collaborate, they will be enabled as diverse generations to work together, learn from one another and share skills (see Section 2.3.1), with the further benefit of being able to solve their problems (see Section 2.3.2). In addition, this will promote a forum for shared learning, build a team culture and improve their communication skills.

4.2.2 Failure to set goals from multiple perspectives relevant to teachers' needs

The goal-setting theory states that the process of setting goals provides a sense of direction, allows people to be focused, enables them to achieve their aims without destruction and improves performance as they recognise the ability and competence in achieving the set goals (Idowu, Chibuzoh & Madueke 2014:93). Goal setting is a key factor in collaboration. It helps to build motivation (Locke 1996:123) and helps organisations to run efficiently (Locke & Latham 2015:159). The National Policy Framework for Teacher Education and Development in South Africa (Department of Basic Education 2006) encourages teachers to set goals in order to continue with professional development and develop the conceptual content and pedagogical knowledge necessary for effective teaching.

The research team visited one of the schools that had not been performing well according to the benchmark specified by the Department of Basic Education. The matric pass rate at this school had ranged between 60% and 70% for the previous five years. In order to be focused and provide a sense of direction, the SMT decided to hold a meeting to discuss how they could improve their performance. The team decided to develop goals that would provide them with a sense of direction and enable them to achieve their aims. They discussed professional as well as financial goals.

(A) The following programme for extra classes was drafted by the SMT.

Table 4-10: Programme for extra classes

Activity	Responsible persons	Time frames	Resources
Saturday classes Grade 12	Subject teachers supervised by the SMT	8:00-15:00	Learners to be provided with meals Stipend for teachers
After-school marathon classes Grade 12	Teachers for all grades with the support of the SMT	Monday-Friday 13:30-16:00	Textbooks
Holiday classes Grade 12	Grade 12 teachers supervised by the SMT	March, June and September holidays	Textbooks

Motivation	Motivational	Mid-term - last	
sessions	speakers from	term	
Grade12	different sectors		

After having discussed the plan, it was cascaded to the teachers. However, they were not impressed by the plan. The Grade 12 teachers, mostly Baby Boomers, were unhappy because they felt the plan did not provide any sense of direction, as they were to be engaged for the whole week and never allowed any break. The way management had planned it made it difficult for them to achieve their aims without destruction, because they were school-bound from Monday to Monday.

(B) The other generations (X, Y and Z) were also unhappy with the plan, because it excluded them from teaching senior classes. Mrs Z (with a Bachelor of Science University Education Diploma and a diploma in computer studies) was allocated mathematics Grade 6, technology Grade 9 and life orientation Grade 9. Even though she was well educated, she could not improve her performance in mathematics teaching and recognised her ability and competence in teaching senior classes. The plan was not accommodative, because it did not cater for those teachers who were ageing and would soon leave the profession without having mentored the younger generations.

Goal setting is a key factor in collaboration. When teachers work as a team, they are able to draw on support in terms of interest and knowledge from other teachers. Management drafted the plan without getting the support of the other teachers and failed to analyse the strengths, weaknesses, threats and opportunities of the school. There were no action steps that would help them reach their objectives. The plan required all members of the staff to collaborate and consciously aim at achieving the set goals while continuously clarifying the goals (cf. McNulty 1983:68). The SMT failed to collaborate; hence the plan was not acceptable to other staff members.

Collaboration is an effective learning practice, and should management encourage it, teachers would be able to discuss and plan lessons together, identify best approaches, share competency and allow sustainable feedback (Joyce & Calhoun 2010:30; Rubin, Rubin & Haridakis 2009:16). If people share ideas, take a point of view, defend a position, give and accept feedback and apply knowledge to a common goal, their

creativity is enhanced. In addition, their reflection improves and increases respect for others (Moule 2005:2). This is a strong measure of social justice.

Goal setting improves performance and motivates people to work harder. From the records of the school, the majority of the teachers were members of Generations X, Y and Z, teaching Grades 6 to 10, while a few of the Baby Boomers were teaching Grades 11 and 12. anagement drafted the allocation of subjects for all the teachers, but this allocation did not take cognisance of the expertise of the different generations.

Table 4-11: Subject allocation

Mrs A subject allocation (Baby Boomer)	Mrs B subject allocation (Generation Y)		
Life sciences Grade 11, economics	Mathematics Grade 6, technology		
Grade 11, Sesotho Grade 10	Grade 9, life orientation Grade 6		
QUALIFICATIONS	QUALIFICATIONS		
Secondary Education Diploma	Bachelor of Science		
Advanced Certificate in Educational	Education Diploma		
Management	Diploma in Computer Science		

The fact that the Generation Y teacher had a Bachelor of Science degree did not matter. She had been allocated subjects that were irrelevant to her qualifications. She was demotivated and wanted to change schools.

Miss Nelly: (To one of her friends) *I am tired of teaching the lower grades. When will I ever be given the chance to teach senior classes? I think [sic] of changing schools.*

Before having allocated the subjects, management should have analysed the strengths and weaknesses of each teacher. This would have enabled them to pair different teachers according to expertise. By keeping experienced teachers teaching in the Senior Phase without integrating them with the younger generations, they failed to use the expertise of the different generations to improve the performance of the school. Failure to set goals that were specific, measurable, realistic, achievable and within a specific time frame hampered the professional development of the teachers; hence they were demotivated.

Setting goals encourages teachers to continue with professional development, develop conceptual, content and pedagogical knowledge necessary for effective

teaching. Looking at the plan for this particular school, teachers were confined to teach specific grades and were comfortable; accordingly, they could not continue with their professional development.

Table 4-12: Goal setting

Activity	Responsible persons	Time frames	Resources
Saturday classes Grade 12	Subject teachers supervised by the SMT	8:00-15:00	Learners to be provided with meals Stipend for teachers
After-school marathon classes Grade 12	Teachers for all the grades with the support of the SMT	Monday-Friday 13:30-16:00	Textbooks
Holiday classes Grade 12	Grade 12 teachers supervised by the SMT	March, June and September holidays	Textbooks
Motivation sessions Grade 12	Motivational speakers from different sectors	Midterm - last term	

Looking at the plan, there was no indication of teachers having a chance for professional development, because they worked seven days a week. There was no indication of the different generations of teachers sharing the subjects, which could have helped with their professional development. The fact that there was no consultation indicated a lack of collaboration, while collaboration is necessary to achieve goals. Management failed to look at the phenomenon from different perspectives (cf. Denzin & Lincoln 2011:102) and, ultimately, failed to provide services that would otherwise be available to help one another.

When the team analysed the scenarios, there were indications that the teachers failed to define their goals. The teachers failing to define their goals contradicted the empowerment objective of teaching and limited their power to share skills and knowledge. These teachers could have tried different methods to empower themselves. They could have combined resources for new purposes and could have set their goals from multiple perspectives relevant to their needs. Supported by management, they could have achieved such goals (cf. Denzin 2011:171).

Analysing these scenarios on the textual level of interpretation, they predict a situation of teachers lacking interaction among the different generations. There is no social connection among the different generations. These teachers fail to have collaborative skills because they work in isolation. Analysing these on the discursive level, the teachers lack solidarity and unison in the manner in which they operate, which could be attributed to unequal power relations. This is rather strange in the context of society that has high regard and expectations of teachers' unity and cooperation. Teachers are expected to communicate their standards and human knowledge through the language of the community. This is indicated by the method they use when planning, presenting and assessing their lessons. If all the generations worked together in unison, none of them would feel excluded.

On the social level, the younger generations ensure their solidarity is maintained at all costs, because even though the younger generation feel excluded, they are willing to demonstrate the importance of teamwork. They believe that they are smarter than the older generations, while at the same time, they find it difficult to work with older generations as they believe they take time to learn. The older members' and the younger members' perceptions of goal setting differ, because the majority of people are expected to be motivated by the accomplishment of goals, but this is not the case with some generations. This is problematic in a society that values unity and human cooperation, because some generations want to invent a structure of teachers that does not conform to any regulation. The introduction of the values of tolerance and self-respect of social justice in people is a prerequisite for teacher performance and cooperation, which are mostly lacking at most schools (Mills & Ballantyne 2016:272).

The results of the study reveal that teachers fail to set goals from the multiple perspectives, which leads to their losing their sense of direction, whereas goal setting, according to Nogu *et al.* (2014:93), provides a sense of direction. This also deprives teachers of building self-confidence (Wilson & Dobson 2008:21). Baby Boomers lack motivation, as they feel the goals presented are not clear. On the other hand, the Generation Y teachers are willing to be coached in order to succeed. Since goal setting is a key factor in collaboration (McNulty 1983:63), it will be necessary for the different generations of teachers to collaborate in order to improve the performance of the school and their communication skills.

4.2.3 Lack of teacher development

Theories on teacher development emphasise the image of a teacher as an important factor in teacher development (Elliot 2012:15). However, Hargreaves (2012:87) asserts that professional training needs should be based on planning to improve the school as an efficient and effective production unit. According to Bernstein (2015:1), an informed teacher is the most important factor in a school and, as such, influences how the learners perform. Teacher development helps teachers acquire knowledge, skills and understanding to manage their classrooms well and promote student learning. There is a belief that the quality of education is determined by the quality of professional training offered to teachers (Witters 2011:1). Teacher development contributes to professionalism, quality teaching and quality learning, thereby ensuring the improvement of schooling.

Teacher development theories emphasise the image of a teacher as an important factor in teacher development.

(A) One of the schools, School B, had mostly younger generations of teachers who had recently qualified. According to the policy of the school, teachers had to be presentable, which involved the following:

Male staff:

- Should be professionally dressed at all times
- A collar and tie are appropriate; on hot days, a shirt with a collar is suitable
- The following items may not be worn: sandals, sports shoes and jeans
- Personal grooming must be professional

Female staff:

- No ieans
- No see-through or revealing clothing
- No visible underwear
- No jeans, tight pants or sportswear

The appearance of most of the Generation Z teachers was casual. Also, the language they used was very informal. In one instance, a teacher was presenting mathematics.

He had his cap on, and the language he used was very informal. When he got to the classroom, the first thing he did was greet the learners.

Teacher X: Morning, Magita.

Learners: *Morning, Meneer.*

The teacher started his lesson, which was very casual with a lot of interruptions from the learners.

Learners: Meneer, ha re utlwe fokol.

(Informal way of saying "we do not understand anything").

The fact that he addressed these learners casually, led to their regarding him as one of them. This teacher failed to understand that his image played a very important role in teaching and learning. He failed to display the image of a professional teacher as required by the code of conduct of the school. While he was presenting a mathematics lesson for Grade 9, the learners did not take him seriously. He displayed this question on the screen.

What is 100% of R100?

Instead of doing what was required of them, the learners were making a noise and laughing at what the teacher had asked until a teacher from the next classroom had to intervene –

Teacher: What is happening here? Why this noise? You are disturbing me.

After the lesson, the team had a meeting with the HoD and explained their observation of the class. This teacher failed to display the positive image required from teachers, which had the effect of influencing how the learners behaved in class. The learners regarded themselves as being equal to the teacher, hence the informal language, "Meneer ha re utlwe fokol" (informal way of saying "we do not understand anything).

Professional training needs should be based on planning to improve the school as an efficient and effective production unit.

(A) At the same school, School B, two teachers of different generations were

teaching mathematics. The teacher in Grade 6, a Generation Y teacher, had a

problem with the subject. Most of her learners obtained between 40 and 55%,

with 55% being the highest she had ever achieved. However, the Grade 12

mathematics teacher had excellent results. The Department of Education

organised training of mathematics teachers -

16.04.2016-20.04.2016 mathematics training: Statistics and trigonometric

identities at St help hall.

The school instructed the Grade 12 teacher to attend, leaving the rest of the teachers

to struggle with mathematics without support. The school failed to recognise that

professional training needs should be based on planning to improve the school as an

efficient and effective production unit. There was no need for the Grade 12 teacher to

attend training. All her learners loved the subject, which confirmed what Bernstein

(2015:1) said that an informed teacher was the most important factor in a school and

as such influenced how the learners performed. The training needs of the teachers

should have been included in the year plan of the school. Teacher development should

be based on planning to improve the school as a whole (Hargreaves 2012:87).

Generally, teacher development helps teachers to acquire knowledge and skills, but

in one of the schools, this was not to be the case.

(A) Mrs Mabana and Mr Dhlamini were supposed to attend an economics

workshop. The HoD for commercial subjects called them to her office to give

these details:

HoD: Lady and gentleman, you must attend the economics workshop.

Mrs Mabana: What is all about?

HoD: Budget.

Mr Dhlamini: As a new teacher for economics, I believe that will help.

However, only one of the teachers attended the workshop. After having attended the

workshop, these teachers had to do a presentation for their learners. The research

team attended Mr Dhlamini's class when he presented a lesson on the budget to his

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learners. He displayed great insight, which clearly indicated he had acquired knowledge and skills, and managed his classroom very well. He explained what a budget was and that it was necessary for the development of the country, for instance for building schools, hospitals and so forth.

(B) The team also attended Mrs Mabana's class. Apparently, she had not attended the workshop. Thus she had failed to acquire knowledge, skills and understanding to manage her classroom. Had she attended the course, she would have been able to obtain advice from other teachers. This would have enabled her to promote student learning. She failed to answer the question posed by the first learner –

Learner: Ma'am, what happens if the government fails to collect the planned capital because you say a budget is a financial plan? What is per capita income?

The failure to attend developmental workshops and failure to coordinate learner activities might have a detrimental effect on the performance of the school and ultimately lead to the failure of the organisation. Failure by the teacher to provide answers relevant to the budget indicated a lack of teacher development on the subject.

Teacher development promotes professionalism, quality teaching and quality learning. This is usually reflected by the way the teachers behave.

(A) Mr Job started working at School A immediately after having completed his degree. He had never been out of South Africa. He had difficulty talking to the girls, as he believed that as a man, he had to be respected by all women. He never used the words "thank you" or "please".

As HoD, Mr Job had a problem of discussing the problems the teachers discussed with him in confidence. Mrs Dhlamini once told him that she was late because she had to go to family court because her husband was ill-treating her.

One day when he clashed with Mrs Dhlamini, he shouted at her and said:

You always come with your excuses and every time complaining about your husband. We are now tired of such excuses.

His behaviour clearly displayed a lack of professionalism. With teacher development, this might have changed. He did not realise that if a teacher discussed his or her problems with him, he or she did so in confidence. He failed to learn professional conduct, and with this attitude, he would not provide quality teaching.

Analysing these scenarios indicates the textual reality that there is no collaboration or development of teachers. There is no interpersonal relationship among the teachers. In any given society and community, collaborative support is a significant factor; a lack of this is problematic. The context of these scenarios could be attributed to a lack of management competence and progressive induction or simply an "I don't care" attitude from the side of management. Management is expected to encourage unity, promote peace among the various generations through collaboration and continuously train employees. This requires a reciprocal relationship among the generations in order to balance power and share skills.

Analysing the scenarios at social level, the teachers at the said schools have accepted that teachers are not to be trained except when they address their challenges in their personal growth plans. This can be attributed to unequal power relations between the teachers and the school management.

Different methods are necessary to enable these teachers to use different strategies. Teachers can socially create knowledge themselves (Rogers 2012:5). If they have limited resources, they can use previously used materials to create knowledge (Bayne 2009:561). They are not to be limited by any method or interpretation, as there is no single method or interpretation style that can provide transformative results in education (Mahlomaholo 2014:180). Finally, cooperation and empowerment would be encouraged.

In this study, it is apparent that the school management failed to develop teachers and inculcate professionalism in their behaviour. This had the effect of decelerating their effectiveness. The principal, as the leader, should build pathways for leaders, have communities to provide effective mentoring and create a culture of supporting newly appointed teachers, (Moir 2009:15). The process should be well structured and properly planned (Matsebane 2015:2).

A lack of teacher induction and development creates a serious problem for multigenerational collaboration, because different generations end up learning the wrong things from their colleagues. Failure to provide an environment where novices learn how to teach and succeed as teachers creates an irreparable negative culture in a school. If management fails to enhance the skills of the teachers, these teachers might leave the school. In the end, there would be less growth for the organisation. It can be deduced that if there is no link between induction and early professional development of teachers, learning cannot be effective (Algozzine *et al.* 2007:139; Bubb *et al.* 2005:271).

4.2.4 Failure to share learning by different generations of teachers

Adult learners bring a great deal of experience to a learning environment, which can be used as a resource by teachers (Dunn 2002:2). Adult learners are encouraged to actively take part in designing and implementing educational programmes. Adults are expected to have an influence on how learning would be evaluated and expect their responses to be acted upon when they request feedback.

Shared learning enables teachers to share responsibility and not work as individuals but pool their resources (Davis 1995:8; Friend & Cook 2010:45). When different generations of teachers collaborate, a social context for professional development among peers is created (Anderson & Speck 1998:673). In this situation, colleagues coach one another and a group of peers engages in a periodic exchange of ideas (Robinson & Schaible 1995:57-59).

Shared learning brings a great deal of experience to the learning environment, which can be used as a resource by teachers. However, if teachers fail to share learning, they will not reap the benefits of a positive learning environment.

(A) School B had a state-of-the-art computer centre, which was to be used by all the teachers. However, the computer centre was solely used by teachers who were computer-literate, namely Generations X, Y and Z. The Baby Boomers could hardly use the program SA-SAMS, supplied by the Department of Education for administration purposes, as indicated by the discussion between the clerk and Mrs Lencoe.

Administration clerk: Mrs Lencoe, you have to capture your learners' marks on to the computer.

Mrs Lencoe: I do not know how to do it. I am not computer-literate. I am retiring soon.

The administration clerk: You need to get help from those that are computer-literate.

Mrs Lencoe: Why should I when I am about to retire.

Administration clerk: Why do you attend workshops organised by the Department?

Mrs Lencoe: We get told to attend.

The teachers failed to share learning and did not use one another as a resource centre. The team discovered that Baby Boomers were not eager to learn from the other generations. This clearly indicated that there was no change in their behaviour, both in internal processes and in attitude.

The availability of school computers as a resource available at these schools is deemed a benefit to all and could be used by all the generations in the planning and implementation of the content. However, it was a regrettable reality that some teachers were unable to use computers. The schools operated in a profound knowledge space, which, in turn, holds a high expectation from teachers to be computer-literate for the 21st century and as torch-bearers of society. Sharing knowledge is critical among the different generations. Failure to embrace this view discursively negates the need for collaboration for the better. This suggests poor collaboration among people and negates the spirit of social harmony, cooperation and the quest for social justice.

Failure to design and implement learning programmes had a detrimental effect on collaboration.

(A) Mrs Nkome and Mr Bolofo were teaching consumer studies in Grade 12. The following was the activity set by them for the third-term practical.

Table 4-13: Grade 12 consumer studies activity

Make your bonus work for you this year.

Pay high-interest-bearing debt

- Pay next year's school fees
- Make sure that every family member contributes
- Pay extra for your home loan

Justify any 3 of the tips how you can beat inflation. (20)

Mr Bolofo never gave his learners this activity to do; instead, he decided to have an oral test, where the learners would answer these questions as he asked them. This was said to be a practical activity, but he failed to treat it as such.

This situation was unfair to Mrs Nkome's learners, as they never had the opportunity to be given an oral examination. When the HoD wanted to find out why the two teachers had not assessed the learners the same way, the following response was given.

Mrs Nkome: I asked Mr Bolofo why he did that, but the answer was not a pleasant one.

The answer given by Mrs Nkome indicates a lack of cooperation between the teachers. They failed to design and implement learning programmes together and to pool their resources together. The two teachers should have engaged in shared learning, where the colleagues coach one another or a small group of peers engages in a periodic exchange of ideas (cf. Robinson & Schaible 1995:57-59). This would have allowed the teachers to establish a long-lasting and trusting professional relationship (Lasley, Matczynski & Williams 1992:259), shielded them from the exposure to diverse training and made them experience new ideas and increased communication skills. However, because of individualism in their teaching, there was an absence of shared identity (see Section 2.3.4). Failure to share their experience may be disastrous to the learning environment, especially if their resources are limited.

According to outcome-based learning, adults are expected to have an influence on how learning should take place and how they are to be evaluated. They also indicate how they expect their responses to be acted upon when they ask for feedback.

(A) The Baby Boomer, Mrs Nkome, had attended computer classes where they were taught how to teach playing chess by using computers. It meant that one had an opponent from a different country. When the assessment was planned, she had to indicate how she wanted to be assessed. This was not done; instead, she received the following results:

Practical = Competent

Theory = Not competent

Having received these results, Mrs Nkome was not satisfied with the outcomes, citing that she had not been given the chance to influence how learning should take place, how she would be evaluated and how she was to receive her feedback. She would have loved to have oral questions asked and her feedback should also have been verbal so that she could have obtained clarification when needed.

(B) The Generation X teacher completed the same training. As she had done outcomes-based assessment, she indicated how she wanted to be assessed and how to get the results. She indicated that she wanted her practical and theory results to be in writing. She received the results according to her influence.

Practical = Competent

Theory = Competent

Shared learning takes the form of curricular integration among different generations of teachers. This creates a social context among them that promotes professional development opportunities. But in this situation, there was no shared learning between the two generations of teachers. Failure by the Baby Boomer to indicate how she wanted to be evaluated indicated the traditional period in which she had received her training, while for the Generation X teacher, it was indicated that she had done outcomes-based assessment.

Shared learning enables teachers to share responsibility and not work as individuals but to pool their resources together. This was, however, not what the team found at School A.

(A) The science teachers had a project on how to save water. They divided the learners according to classes and teachers. Mrs Abee was very enthusiastic

and approached the lecturer at the University of Technology who specialised in

water to help her. Coming back, she advised Mr Cee to seek help from the

same lecturer, but he never did. Mrs Abee designed an irrigation system that

could water plants only when their roots were dry, when the dryness triggered

a sensor at the roots. Mr Cee failed to work with Mrs Abee. He failed to share

the responsibility; instead, he was working in a silo environment.

Shared learning by teachers benefits not only the learners but also the teachers

because they plan together and implement the content together, which have a positive

effect on their communication skills, interpersonal skills and problem-solving skills

(Mackey et al. 2017:103). This also encourages them to be flexible and examine the

phenomenon from different angles (Denzin & Lincoln 2005:100). They are also

enabled to use diverse epistemologies (see Section 2.2.2.2).

Furthermore, shared learning creates professional development among peers. This

may involve participation in professional organisation and improvement in job

performance, such as learning how to use technology.

(A) The situation the team observed at School A was shocking. The principal had

a serious clash with the South African Democratic Teachers Union (SADTU)

shop steward, because he wanted to attend a meeting.

Shop steward: Sir, may I be allowed to leave at 12:00 today?

Headmaster: Why, Sir?

Shop steward: I am attending the SADTU council meeting.

Headmaster: That will never happen.

Shop steward: Sir, I am attending a meeting organised by a

professional organisation. I am representing teachers.

Headmaster: No, I refuse.

The headmaster refused permission and did not allow his peer to get professional

development. Failure to obtain professional development could have detrimental

effects on the school. By attending the meeting, the teacher would have been enabled

to share learning from other teachers.

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In addition, shared learning encourages colleagues to coach one another. This usually succeeds if a senior member of the staff guides the junior staff members. At both schools, the research team noticed that no mentoring had been done.

(B) At School A, there was a newly appointed teacher who was allocated life orientation to teach. He did not know where to start. The day the team was visiting the school, he had his learners drilling outside, but he was not there to supervise them. The team discussed the situation with him.

Team member: Mrs Dee, are you helping these learners drill?

Mrs Dee: Yes, Sir, in a way because I do not know what to do.

Team member: Is there no one who could help you?

Mr Dee: I was assigned the Head of the Division to help, but he has not

done so.

(B) A lack of mentoring was also evident in the Mathematics Department. One teacher teaching mathematics in Grade 12 was doing very well, whereas the one teaching the lower grades was not performing well. The Grade 12 teacher failed to mentor the teacher who was teaching the lower grades.

Analysing these scenarios at the social level, there is no interaction among the generations. These teachers fail to learn the skills that would help them to be better teachers. Experienced teachers do not try to empower the less powerful teachers. There are no collaborative skills, because no offer is made to other teachers. There is no transformation, because the less powerful are not empowered. At the social level, the newly appointed teachers do not have the freedom to be the best teachers they could be, because they lack support. This situation clearly indicates an absence of mentoring and coaching. Allowing the new teacher to work alone, without experience, is detrimental to the learners and the school as a whole. With a mentoring programme in place, the school is disregarding the limitations of the teachers.

4.2.5 Failure to pool resources to create cooperative, interdependent relationships

Different variables are necessary for the performance of an organisation. According to this approach, an analysis is done of the synergic integration of the different variables that constitute the organisation to function (Alcázar *et al.* 2005:226), taking into account that the effective management of resources has an impact on the quality of teaching and learning (Gaotlhobogwe 2012:1-27). All the decisions that are made have to be supported by appropriate resources. Management experts usually believe that people are the most valuable resource in any organisation (Chadwick 1999:1-6), because the human factor is the engine of growth (Adjibolosoo 1995:53). However, in addition to human resources, resources such as libraries, parks and finances have to be obtained, allocated, used and evaluated to make schools successful. These resources have to be pooled and managed. However, Mel and Mel (2006:65) argue that different institutions within them have expertise that tends to be overlooked and creativity that should be mobilised to move thinking and progress forward.

For a school to succeed, there should be an analysis of the synergic integration of the different variables that constitute the organisation to function. This includes physical as well as human resources.

(A) At School B, the team noticed that neither an analysis of the teachers required to make the school successful had been done, nor was consideration given to furniture or books.

Table 4-14: Total number of teachers employed at School B

Sesotho	4
English	4
Mathematics	2
Life sciences	1
Physical science	1
Geography	4
History	3
Consumer studies	1
Life orientation	1
Clerk	1
Cleaner	1
Computer studies	0

Looking at the number of teachers per subject, there is a clear indication that no analysis of the requirement for the human resources of the school has been done. There are too many teachers for geography, which is taken by only a few learners. One teacher teaches life sciences and physical science. Should this teacher be absent, it means both the physical science learners and the life sciences learners suffer.

To prove that the school failed to analyse all the variables, it had 1 200 learners, but had desks that could only accommodate 900 learners. Many learners took life sciences, but the subject was taught by only one teacher. All the learners took life orientation, but only one teacher was assigned to teach it.

The effective management of resources affects the quality of teaching and learning. This means if resources are not well managed, learners will not learn well.

(B) The effects of limited resource management were noticed when the team attended a class presentation by Mrs Jack, a Baby Boomer, to observe her lesson presentation.

She referred the learners to an extract in one of the prescribed books. Out of 58 learners, 20 indicated that they did not have books. The team noticed that resources were limited, with most learners sharing books. The classroom was overcrowded, with 58 learners in one class. Mrs Jack had to request learners with books to share. This made teaching difficult. There was a data projector with a screen available to her, but she did not use it as she was not computer-literate.

From the above situation, the team noticed that there was a shortage of books, which could have been caused by a poor retrieval policy. There was overcrowding, which could be attributed to either a shortage of teachers or a shortage of classrooms.

All the decisions that are made have to be supported by appropriate resources. This was not the case at this school. One of the schools had introduced computer studies for Grade 10, with the understanding that the following year they would have it in Grade 11 as well. This was done with the hope that the Department of Education would give them an extra teacher. This decision was made without taking into account the resources needed for computer studies. The school did not have a computer laboratory; in fact, it did not have a single computer to be used by the learners.

Table 4-15: Computer laboratory requisites

Requisites	Available	Needed
Computers	0	60
Printers	0	3
Modems	0	2

The school failed to understand that before they could decide on introducing computer studies, that decision had to be supported by appropriate resources, which the school did not have.

Furthermore, people are the most valuable resource in any organisation, and a shortage of human resources creates a problem for the organisation. The subject allocation of the school is set out in the table below.

Table 4-16: Total number of teachers employed at School B

Sesotho	4
English	4
Mathematics	2
Life sciences	1
Physical science	1
Geography	4
History	3
Consumer studies	1
Life orientation	1
Clerk	1
Cleaner	1
Computer studies	0

Looking at the staff distribution, there are shortages of teachers for the following subjects: life sciences, physical sciences and life orientation. Without enough teachers, there will not be any effective teaching and learning. Management experts see people as the most valuable resource in any organisation (Chadwick 1999:1-6); therefore, human resources have to be managed well.

Apart from human resources, resources such as libraries, parks and finances are necessary for a school to be effective. Neither of the schools had libraries or playgrounds for the learners.

(C) The schools were responsible for their finances. School B charged R50 for registration, whereas School A was a no-fee school. The school failed to raise funds to develop parks and build a library. The financial position was as follows: Cash in the bank R15 000 by the end of May 2016.

From this amount, the school had to pay its water and electricity bill. Failure to provide additional resources created a hassle for both schools. These schools could not improvise by obtaining previously used materials to solve their problems.

Analysing this situation, the schools experience problems with resources. Unfortunately, there are very few books and only a few teachers available. The principals have to encourage teachers to engage with a variety of resources to address curricular needs and set the stage for collaborative curriculum development and implementation. This cannot succeed unless resources are available. Against this background, all the teachers need to be inducted in the use of available school resources for better usage. The principals have the responsibility to create an atmosphere that is conducive to democratic participation by teachers and provide them with the needed resources for the schools to succeed.

These teachers should refuse to enact the limitations caused by the shortage of resources. They could use previously used books to help learners. Few of the teachers are capable of using technology; these may be used to improve the skills of those teachers without or less computer skills. Using this strategy would enable them to pool their resources together to create cooperative, interdependent relationships. They would understand that culture and the self are inseparable and people can only obtain knowledge shaped by discursive practices (Shawn & DeForge 2012:443). The lack of resources should have encouraged flexibility. This would call for the different generations of teachers to look at their situation and make use of any available material in order to make their lessons successful.

Emanating from the above, it is indicated that a shortage of resources, be it physical or human, affects teaching and learning negatively. A shortage of books and technology creates a problem for teachers. The effective management of resources affects the quality of teaching and learning (Mishra & Yadav 2013:51; Section 2.3.2.2). Decision making should be supported by appropriate resources (Mestry & Bodalia

2015:2). In order for human resource management to succeed, different generations of teachers should collaborate.

4.3 EXPLORATION ON HOW EFFECTIVE MULTIGENERATIONAL IS FACILITATED IN OTHER SETTING, THEREBY LEADING TO IMPROVED COMMUNICATION SKILLS FOR TEACHING

4.3.1 Introduction

This section discusses solutions related to challenges in designing a strategy to facilitate multigenerational collaboration among teachers towards the improvement of their communication skills for teaching, as discussed in Section 4.2. These are as follows: (a) Establishment of a team that facilitates multigenerational collaboration among teachers towards the improvement of their communication skills; (b) Setting goals from multiple perspectives relevant to teachers' needs; (c) Teacher development; (d) Sharing of learning by different generations of teachers; and (e) Pooling resources to create cooperative, interdependent relationships. These solutions will be discussed in line with the introduction in Section 4.1.

4.3.2 Establishment of a team that facilitates multigenerational collaboration among teachers towards the improvement of their communication skills

Team-based learning, as reflected in Section 4.2.1, is crucial in carrying the study forward in that it focuses on and considers the previous learning done by the learner as a foundation upon which to modify, expand and build new knowledge (see Section 2.3.2.3). It fosters critical thinking skills, enhances empowerment, implements handson problem-solving skills and provides a comfortable environment in which to grow (Mandel & Eiserman 2016:76). In addition, team-based learning assists in monitoring the effectiveness of the appraisal system of teachers, restores quality schooling and a culture of teaching, helps in the development of the professional quality of the teaching force, which includes conceptual, content and pedagogical knowledge necessary for effective teaching, fosters cooperation and enhances the competence and professional skills of teachers (Education Labour Relations Council 1995:5; Middlewood & Cardno 2001:98). Furthermore, teams enable teachers to learn from one another, promote effectiveness of teaching, develop mutual respect and different

teaching styles, encourage social interdependence and create a positive learning environment (Mabokela & Mawila 2004:375; You & Craig 2015:519).

In order to establish teams in the two schools under study, several meetings were held with stakeholders trying to establish the strengths, weaknesses, opportunities and threats the schools had in terms of the teaching staff. From these meetings, dedicated teams were established. Their first focus was to promote the effectiveness of teaching and to consider previous learning as a foundation upon which to modify, build and expand on their knowledge.

(A) The two teachers, Mrs Alberts, a Baby Boomer, and Mrs Beauty, a Generation Y teacher, analysed the way they were teaching business studies and noted that both of them had strengths and weaknesses. They decided to develop a strategy that would suit them both. With the previous knowledge Mrs Alberts had, combined with Mrs Beauty' technological knowledge, they decided to change the way they planned and presented their lessons and the methods they would use to assess the learners. They jointly planned their lesson using Twitter. Mrs Beauty was quite familiar with this technology, while Mrs Alberts had never used it. Their collaboration helped them both. Mrs Beauty did not have any planning recorded. She had the idea that a teacher simply had to go to class with a computer and teach, while Mrs Alberts believed in doing planning and storing the records safely in a preparation book. Mrs Beauty indicated that they could plan using Twitter.

Table 0-17: Planning

Using Twitter	Benefits
The teachers informed the learners of	They were enabled to communicate
the date they would have extra	with the learners. They provided extra
classes – 16.05.2016.	work where necessary so that both
	classes could do the same things
They informed the learners to do	provided by two teachers.
Activity 14 in their textbooks.	
	It also provided their lesson plan with
They planned their lesson for the	a database because their lesson plan
week using Twitter.	was done through technology.

4.3.2.1 Lesson presentation

Mrs Beauty and Mrs Alberts decided to combine their classes for a month when presenting them. Mrs Beauty downloaded a picture of an interactive whiteboard from the Internet to explain the different steps to be followed when solving the problem of a shortage of books. She focused on her previous learning on interactive whiteboards obtained while she was a student as a foundation upon which she could modify, expand and build new knowledge. She used it to explain how they could solve the problem of the shortage of resources by using a computer. The advantage of an interactive whiteboard is that it has a high level of collaboration during teaching. It makes it easy for the teachers to communicate, and they can easily make changes to their documents during a presentation.



Figure 4-2: Interactive whiteboard (source: Internet)

Even though the school did not have an interactive whiteboard, Mrs Beauty stated that if their school had one, the above-mentioned benefits could be derived from the use of the board.

4.3.2.2 Assessment and remediation

Mrs Beauty and Mrs Alberts used online resources to assess their learners and do remediation. They emailed the assignment to the learners using the Internet.

Business studies assignment

Discuss the steps to be followed to solve the problem of a shortage of books in your school.

Email the assignment to ...

These teachers removed the educational limitations they had by working together. This also enabled them to collaborate with the learners in real time. By using technology, learning became flexible and easily affordable to all. The assignment was to be marked and the result dispatched to the learners by email. The limitation of the resources they had was minimalised, and the learners were motivated. Through collaboration, the teacher who had no knowledge of computers was enabled to engage her learners through the medium of a computer.

Collaboration encourages critical thinking skills among teachers. Collaborative teaching requires parties to build strong foundations through shared understanding, values and beliefs (Mackey *et al.* 2017:101).

(B) Critical thinking skills were reflected by the teachers at School A when they, for the first time, decided to plan and interpret their poetry teaching skills. The two teachers from different generations combined their respective experience in teaching the poem. They did this by describing the role played by poetry to establish the learners' prior knowledge. The learners were instructed to read the poem loudly in groups in order to indicate repeating words and sounds. They were instructed to explain what was happening in the poem. They split the poem into lines to create patterns, identified the figures of speech and, in the end, allowed the groups to share ideas.

Instead of each teacher focusing on his or her own method, they worked as a team. This clearly indicated the strong team spirit among the teachers. Their behaviour demonstrated that the success of teaching depends on the joint effort of all the generations. Their behaviour encouraged the learners to enjoy poetry. Their actions provided a comfortable environment in which to grow, which only existed because there was a team.

The success of a team depends on how well it monitors the effectiveness of an appraisal system. Teacher development brings success to the school, because well-informed teachers create well-informed learners.

(C) Mrs Alberts decided to organise a workshop where she could have one-on-one discussions on teacher development with younger teachers who regarded appraisal as subjective. The first thing she did was to ask the teachers to identify their needs. Shen decided to engage them in a game activity she called "Mind your business".

She instructed the teachers to sit in a circle and face one another. She then asked them to teach their partners something new on teacher development. The lessons and questions done were recorded and put in a box. The policy of the school was to have all the teachers in the staffroom during break time. During break, they discussed the questions found in the question box. The questions ranged from how to create a positive environment, how to participate in extra-curricular activities, how to increase knowledge of the curricula and what the human relations in the school and the contribution to school development were. The teachers randomly paired themselves by using numbers from the other two boxes which led them to discuss teacher development. The following aspects were discussed:

Creation of a positive learning
environment

Knowledge of the curriculum

Lesson planning, preparation and
presentation

Learner assessment

Professional development in the field of
work; career and participation in
professional bodies

Human relations and contribution to
school development

Extra-curricular and core curricular
participation

Each pair noted different ways of creating a positive learning environment. These included spending time individually with learners (which would enable the teacher to know the learners better), praising the learners if they did well, supporting the learners mentally, physically and emotionally, conveying positive messages in the classroom, providing space for the learners to raise their concerns too and making the physical environment of the classroom as neat as possible.

(D) Concerning curriculum knowledge, the teachers grouped themselves according to the different learning areas. This entailed how they would prepare a lesson, present it and assess the learners. They explained that they would prepare using Twitter instead of the preparation file, and instead of using test papers to write the test, they would use a computer. This would enable them to solve the problem they had with resources and create positive human relations.

Write an essay of 850 words on how to improve the cleanliness of your classroom. Email the essay to English@Sanet.co.za

Positive human relations create an environment where everyone works together as a team. To enhance positive relationships among staff members, the teachers engaged in an activity using all the staff members.

(E) The teachers were randomly given numbers. Each number represented an activity to do and the partner one had to work with. The first activity was raising funds for the school. This entailed planning, organising, implementation and controlling the activity. The teams had to explain all the activities they would do and the people they would contact. This activity also explained how they would be involved in extra-curricular activities. Mrs Alberts's workshop was successful in developing the teachers. They worked together as a team and laid aside the differences they had.

A team restores a culture of teaching and learning.

(F) The teachers at School A decided to build a culture that would encourage both learners and teachers to respect time and the code of conduct. After having assessed their strengths and weaknesses, the teachers decided to divide the learners into six groups called "houses" from the lowest grade to the highest. Each house was supported by nine teachers because the school had 54 teachers. Each house had its own colour – red, blue, purple, black, yellow and green. These colours translated into clothes worn by the learners and teachers on Tuesdays, Thursdays and Fridays. There were strict rules for the members of a team relating to performance in class, sports and general behaviour. This included demerits if there was a problem with behaviour. The performance

noted by the end of the first term in terms of the six groups is indicated on the graph below.

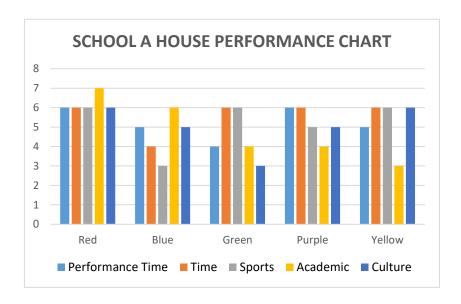


Figure 4-3: School A: House performance chart

The results were pasted in each and every class. This had the effect of motivating the members of each house to perform better where they had not performed well. It also had the effect of encouraging the teachers to compete among themselves. In addition, grouping the learners into houses had the effect of improving the culture of learning and teaching, which had the advantage of team members committing to a high-level effort in learning. Team members were able to help individual members better understand their work, motivating one another and successfully accomplishing difficult tasks (cf. Fink 2003:3). From the graph, it was clear that the "Red House" was the best performer for the first term and the other houses had to do better to beat it. By having these houses, the school was able to help the teachers and learners develop a culture of learning and teaching, which, in turn, assisted in developing a professional quality of teaching.

Teams foster cooperation and enhance competence and professional skills. This allows for conversation and decisions to be implemented by teams, with the colleagues supporting one another and getting collegial feedback and critique (You & Craig 2015:519; Section 2.3.1.3).

(G) The mathematics teachers, especially Mr Dolphin, decided to work together with Mr Ben and Mr Joseph. It emerged that Mr Dolphin enjoyed geometry but had difficulty with algebra. The three teachers worked together and their class results were as follows:

Mr Ben

Total number of learners	% pass	7	6	5	4	3	2	1
45	91	10	3	6	4	13	5	4

Mr Joseph

Total number of learners	% pass	7	6	5	4	3	2	1
40	100	15	9	7	4	5	-	-

Mr Dolphin

Total number of learners	% pass	7	6	5	4	3	2	1
45	80		-	7	4	5	20	9

Figure 4-4: Results

From these results, it was noted that great improvement had been made in the performance of the learners, especially those taught by Mr Dolphin. This clearly indicated that cooperation had taken place among the teachers. By working together, their competence and professional skills were greatly improved. This indicated that by working as a team, each brought different skills to the team that helped to empower one another.

When teachers work together, they learn different teaching styles from one another and encourage social interdependence. This enables them as a group to modify their practices accordingly and become active in their own learning. In this way, they engage in inquiry and construction of new insights through collaborative learning in a group (see Section 2.3.6.2).

Teamwork helps in the development of the professional quality of the teaching force, which includes conceptual, content and pedagogical knowledge necessary for effective teaching. It involves the capability to perform the duties of one's profession

(Liakopoulou 2011:2). This requires teachers to have subject knowledge, knowledge of the learners, a teaching methodology and curriculum knowledge.

(H) Mr Black and Mr White, teaching art and languages at the same school, had a discussion on how to enhance their competence and professional skills. They agreed to work together to make their lessons a success. They decided to have different "language weeks". For a specific week, a particular language was to be used. If it was Sesotho week, for instance, everyone had to teach in Sesotho, write in Sesotho and read Sesotho books.

Table 0-18: Mr White's art class

Sesotho Week	Reading	Writing	Speaking	Dramatization
Xhosa Week	Reading	Writing	Speaking	Dramatization
English Week	Reading	Writing	Speaking	Dramatization
Afrikaans	Reading	Writing	Speaking	Dramatization
Week				
Zulu Week	Reading	Writing	Speaking	Dramatization
Venda Week	Reading	Writing	Speaking	Dramatization

This would be done to enhance their communication skills. They also encouraged their learners to prepare meals representing a particular culture or to dress according to the culture they represented. This would also be supported by learners as well as teachers wearing clothing representing the culture for the week. By doing this, they would be learning different cultures and enhancing their professional skills and quality of teaching art. Without each other's support, they would not have achieved this.

A team is built through mutual respect. Team members should respect one another. This is achieved through communication, listening to one another, remaining positive and working together. After several meetings held by different committees, they decided that before any announcement could be made to the learners, it should be agreed upon by all the committee members.

Effective teaching involves the teacher engaging with learners in class in a way that shows mutual respect, shares knowledge, provides feedback and gives assessment activities that encourage learning. However effective teaching can be affected by lack of team work.

(I) The two teachers teaching life sciences held a meeting to establish how they could improve their teaching skills. The teachers agreed that in order for learners to understand the learning area, they should engage in doing an experiment in the presence of the teachers. They decided to do their experiment together. They did an experiment proving that the leaves of plants contain starch, created through photosynthesis. In this experiment, they allowed learners to heat plant leaves in alcohol. The alcohol removed the chlorophyll. They then dipped the leaves in a solution of iodine, while watching the leaves turning dark green. This proved the presence of starch.

While the learners were doing the experiments, both teachers were busy engaging them. They were able to answer questions posed by learners. This enabled them to provide immediate feedback. They also gave the learners assessment activities that encouraged learning through experience. This encouraged the learners to work harder, as reflected by the number of questions they asked.

Learner: Is there another method of testing starch in plants?

Teacher: Yes, there are various ways, but for now, focus on the method you used.

By working together as a team, their teaching skills were enhanced, which encouraged the learners to excel in their work too.

- (J) One of the schools was having difficulties in the teaching of English Grade 9, where a Baby Boomer was teaching. The other two teachers, from Generations X and Y, were teaching other grades. They all held a meeting to discuss different ways of improving their teaching skills. They decided on new methods of teaching the language:
 - (a) The first item was to assess the needs of the learners. Teaching was then based on the task to be performed. They isolated their individual skills and competencies in order to teach what these learners needed.
 - For example, learners were instructed to book hotel rooms or discuss different political situations affecting them.
 - (b) The second was based on the project to be done. They looked at the different curricula followed and were asked to describe how they would do the following:
 - Instruct science learners to design a bridge.

- ii. Instruct commerce learners to draw a budget.
- iii. Instruct humanities learners to bake a chocolate cake.
- (c) They also had to focus on the language relevant to the given task, for example writing an email to confirm receipt of products or arranging an interview.
- (d) They then encouraged their learners to use their smartphones to provide translations.

After this intervention, other teachers as partners on an equal status were acknowledged (see Section 2.3.2.4), and drastic changes in the performance of the learners were observed. Learners that had not been performing well in English improved drastically. The pass percentage for English ranged between 80% and 100%. The teachers were motivated and their results improved, confirming multigenerational collaboration as a reciprocal dynamic process that encourages participants to share decision making regarding mutually determined goals (see Section 2.3.2).

Analysing the results of the post-test experiment where the different generations worked together indicates the positive effects of collaboration. The analysis of how these teachers performed shows an improvement in their cognitive skills. They are able to search for information, analyse the problem and, finally, find a solution to their problem. This brings about a positive solution and change to their social beliefs. The language they use is very positive, which encourages positive behaviour from the teachers. At the social level, these teachers resist negative power relations; hence they are able to work as a team. Irrespective of their ages, they are able to achieve their objective. The conclusion is that through collaboration, teachers are able to achieve their aims. This contributes to the objective of the study, which is improving communication skills through multigenerational collaboration.

4.3.3 Setting goals from multiple perspectives relevant to teachers' needs

Setting goals allows one to be focused, provides a sense of direction, enables one to achieve one's aims without destruction and improves performance, as one recognises the ability and competence in achieving the set goals (Nogu *et al.* 2014:93). Goal setting is a key factor in collaboration, and according to Locke (1996:123), helps build

motivation and helps organisations run efficiently (Locke & Latham 2015:159). The National Policy Framework for Teacher Education and Development in South Africa (Department of Basic Education 2006) encourages teachers to set goals in order to continue with professional development and to develop conceptual content and pedagogical knowledge necessary for effective teaching.

After having done the analysis on the performance of the school, the research team realised that no goals had been set.

(A) It became imperative to encourage the teachers to set goals for the year. The goals would enable them to be focused and provide them with a sense of direction. The teachers teaching matric suggested that all the teachers with the necessary expertise were to help them. This entailed drafting a new timetable for March, June and September, where teachers, irrespective of the classes they taught, were to be involved. As the results were mostly affected by mathematics and physical science, they decided to include Mrs Z and Miss Nelly to help. The timetable was changed so as to also include two weeks in a month. At the stipulated times, there were marathon classes where mathematics and science were taught. This included pre- and post-assessments of the learners' performance.

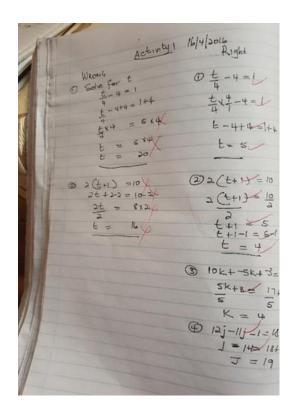
Through reverse mentoring (see Section 2.3.2.4), Baby Boomers were allocated some subjects in Grade 6 or 9, where they would be mentored by the younger generations and, at the same time, they could help to mentor the younger generations. This helped to establish a friendly rapport among them. The Generation Y teachers were allocated subjects in Grades 10 and 11, which helped disseminate the information immediately and motivate other teachers to use technology when teaching. Finally, the organisation ran efficiently.

Table 0-19: Timetable for extra classes

March	Mathematics	Physics
June	Mathematics	Physics
September	Mathematics	Physics

The success of the goals set was reflected in 2016, with a drastic improvement in mathematics and science results and a number of learners performing excellently and obtaining level seven in these subjects.

(B) Having obtained good results that year, the school decided to have different generations of teachers working together. They started with Grade 10. Teachers started by giving the learners a pre-evaluation assessment, and after having been helped by teachers, they were given a post-evaluation assessment. The activities that the learners did before the support of the other teachers and after the teachers had worked together as a team are reflected below, showing the improvement in the learners' performance.



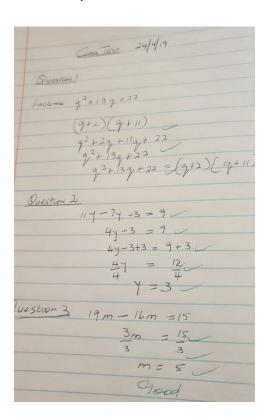


Figure 4-5: Copy from a Grade 10 learner's workbook

In order to improve the learners' performance, all the generations became involved. They focused on the different skills of each teacher. Each teacher focused on a particular group, giving special attention to the weakness identified. This brought about great improvements, which could be attributed to having set clear goals. This enabled the teachers to be focused, provided them with a sense of direction and enabled them to achieve their aims without destruction.

(C) Through parallel teaching (see Section 2.3.2.4) and pooling resources (cf. Letterman & Dugan 2004:77), the teachers were able to improve the performance of the learners. This was also supported by the principal, who was very effective in supervising and motivating the teachers as well as the learners (see Section 2.3.2.4). Comparing the results for mathematics and physical science in 2016, 2017, 2018 and March 2019, there was a great difference. Through collaboration among the different generations of teachers, the results for physical science improved from +60% to +82%, and mathematics from 82% to 90%. This could be attributed to the goals that were defined.

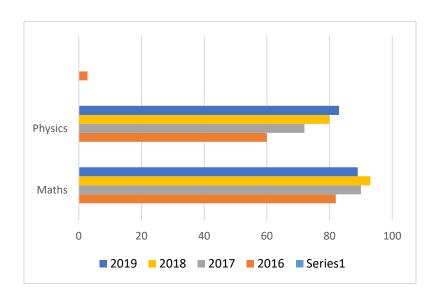


Figure 4-6: Comparison of mathematics and physical science marks

Collaboration became the key to the success of these teachers, because it built motivation and helped the organisation run efficiently. Through multigenerational collaboration, most of the teachers were motivated, took ownership of the processes and were encouraged to share goals (cf. Lasley *et al.* 1992:261). This also helped them to learn from one another and gave them the opportunity to bring about changes. Ultimately, they benefitted from the exposure (see Section 2.3.2).

(D) Different science teachers were engaged in performing experiments for learners. It also had the effect of encouraging the learners to perform some of the experiments themselves.



Figure 4-7: Group of learners performing a science experiment

Analysing the scenarios at the textual level, when the teachers set goals that were specific, measurable, achievable, relevant and time-bound (SMART), they were able to reach their target. If teachers are allocated subjects they are capable of teaching, they perform better. This encourages them to implement their goals and improves mutual respect. Ultimately, this encourages them to continue improving their performance. Once they know what is expected of them, they are able to share skills, build trust and accept opposing opinions. This brings about transformation in how they do things and expect things to be done.

4.3.4 Teacher development

The image of a teacher is an important factor in teacher development (Elliot 2012:15). Hargreaves (2012:87) asserts that professional training needs should be based on planning to improve the school as an efficient and effective production unit. According to Bernstein (2015:1), an informed teacher is the most important factor in a school and, as such, influences how the learners perform. Teacher development helps teachers acquire knowledge, skills and understanding to manage their classrooms well and promote student learning. There is a belief that quality of education is determined by the quality of professional training offered to teachers (Witters 2011:1). Teacher development contributes to the professionalism of quality teaching and quality learning, in the end ensuring improvement of schooling.

Teacher development plays a critical role in the development of the image of teachers, because most teachers leave university without understanding that their image is crucial to the development of children, as reflected in Section 4.2.3. Teacher development energises learners to work hard and encourages teachers to do their best at all times.

(A) After several meetings, School B finally understood that they had to abide by the policies governing all in their school. In these meetings, it was decided that teachers were to form groups supervised by an HoD of their choice. In one meeting, they brainstormed on the meaning of image. The following were identified as the meaning of image.

Face, role, public perception, picture

Physical likeness, appearance

The HoD started by asking them what face they would want to depict as teachers. They stated that the face should not show anger, but be positive. As teachers, they had to take on the role of parents and provide guidance to the learners. This would change the perception of the parents, if they had a negative attitude. The pictures of them in the minds of the children and the parents should be positive. If the picture the parents had about them was positive, physical likeness would follow, which would finally create a positive appearance of the school. From this activity, all teachers in the group were willing to play their part in the management of the school. This activity influenced the teachers positively and enabled each to reflect on him- or herself.

Professional training needs should be based on planning to improve the school as an efficient and effective production unit.

(B) The SMT of School A decided to check all the training organised by the Department of Education in order to establish what training would have an impact on their school. Training for HoDs had been organised, which would have an influence on improving their performance and the school as a whole. The modules covered in this training is set out in the table below.

Table 0-20: Modules covered in HoD training

January to March	Managing finances of the school
April to May	Managing diversity, governance
June	Leading and managing people
August	Mentoring and coaching people

After having attended the training, there were changes in the way they managed their divisions, which confirmed what Davids (2009:1) stated, namely that training improves the quality of teaching and managing. These teacher development workshops helped the teachers acquire knowledge, skills and understanding to manage their classrooms and promote student learning (see Section 2.3.6.1).

Teacher development influences how learners learn. A knowledgeable teacher influences the performance of the learners.

(C) This was reflected in School B, where the mathematics teacher excelled in teaching the subject after having attended a workshop. She was always surrounded by learners; if a teacher was absent for a particular grade, the learners would be engaged in practising mathematics.

Analysing the situation clearly shows that a knowledgeable teacher manages to control the behaviour of the learners. Different generations of teachers need to work together and engage in their development. This validates that a multigenerational teaching staff is able to acquire skills and knowledge that contribute to the professionalism of the teachers. This was clearly reflected by the difference between the teachers who attended a workshop and those who did not attend the workshop. There was an improvement in their cognitive as well as collaborative skills, because their social interaction was very positive.

4.3.5 Sharing of learning by different generations of teachers

Adult learners bring experience to a learning environment, which can be used as a resource by teachers (Dunn 2002:2). They actively take part in designing and implementing educational programmes. Adults influence how learning will be evaluated and expect their responses to be acted upon when they request feedback.

Through shared learning, teachers are encouraged to share responsibility and not work as individuals but pool their resources (Davis 1995:8; Friend & Cook 2010:45). Through collaboration, professional development among peers is created (Anderson & Speck 1998:673). Colleagues coach one another, and a small group of peers engages in a periodic exchange of ideas (Robinson & Schaible 1995:57-59).

The sharing of knowledge brings a positive learning environment to the organisation, because teachers act as a resource centre to one another. Through multigenerational collaboration, they are able to solve problems (see Section 2.3.2).

(A) The Grade 10 business studies teachers from the two schools, A and B, decided to share skills and let their learners work together. Mrs Dee decided to introduce what she called a "triangle of positive environment". This triangle encourages schools to maintain a positive environment.

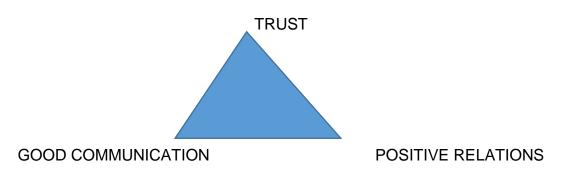


Figure 4-8: Triangle of positive environment

Since the learners were from different schools, she encouraged them to get to know one another. They did so by asking one another who they were and why they were doing business studies. This action created a space where the learners built positive relations that enabled them to ask for help, if needed. With good communication, they were able to speak the same language. This enabled them to trust one another. The activity encouraged them to share knowledge and bring a positive learning environment to the organisation. In addition, the activity helped to design and implement several educational programmes.

When learning is shared, different generations of teachers have an influence on how learning would be evaluated and expect their responses to be acted upon when they ask for feedback. The Baby Boomers expect to be evaluated differently to Generation

Y (see Section 4.2.4). This is due to the period during which the different generations of teachers had obtained their training.

(B) The Generation Y teacher expected to have an influence on how learning should take place. This calls for the explanation on how they would be evaluated and how they would receive feedback. This means when learning is shared, these teachers will learn from one another and adopt outcomes-based assessment. The Baby Boomer and the Generation Y teacher gave their learners the following activity to do:

Discuss the different forms of business ownership. This will be assessed orally in the class. The feedback will be provided immediately. You have the right to choose an alternative assessment method.

By sharing learning, the Baby Boomer was able to acknowledge that the traditional assessment method had been replaced by outcomes-based assessment and learners had an influence on how they were to be assessed and provided with feedback.

Through shared learning, the teachers were encouraged to share responsibility and not work as individuals but pool their resources. They did this by knowledge networking (cf. Serban & Luan 2002:5), defending positions and enhancing creativity (cf. Morel 2014:36).

(C) The teachers who taught physical science at Schools A and B decided to have sessions on Fridays to conduct physical science experiments. Before the experiments would be done, they met, each bringing whatever chemical for the experiment was available from his or her school. The chapter they focused on was on acids and bases. The question was: What are acids and bases, and what is their reaction with each other? Through the experiment, the teachers indicated that acids were neutralised by bases.

They brought household items containing acids such as vinegar (acetic acid), lemon juice (citric and ascorbic acid) and wine (tartaric acid). Acids such as hydrochloric, sulphuric acid and nitric acid are usually found in laboratories. Bases are caustic soda (sodium hydroxide). Doing this enabled them to share resources and to interpret the subject matter for the benefit of all. In addition, they were enabled to become reflective

practitioners by working collegially in professional learning communities (cf. Hargreaves 2002:162).

While these teachers were carrying out the experiment, they assisted one another, which enabled them to improve their performance. As a cluster, they focused on improving their performance in order for their learners to improve their performance (cf. Ndlalane & Jita 2009:59). Through collaboration, professional development among peers was created and they were able to coach one another.

4.3.6 Pooling resources to create cooperative, interdependent relationships

There are variable resources that constitute an organisation to function (Alcázar *et al.* 2005:226). Effective management of resources has an impact on the quality of teaching and learning (Gaotlhobogwe 2012:1-27). These resources are human resources as well as other resources, such as libraries, parks and finances that have to be obtained, allocated, used and evaluated to make schools successful. According to management experts, people are the most valuable resource in any organisation (Chadwick 1999:1-6), because the human factor is the engine of growth (Adjibolosoo 1995:53). These resources have to be pooled and managed because all the decisions made by management have to be supported by appropriate resources. Sometimes institutions have within them expertise that tends to be overlooked, but they should mobilise creativity to move thinking and progress forward (Mel & Mel 2006:65).

Resources help the organisation function effectively. When resources are pooled, there is more efficient use of the existing resources. This was reflected when Schools A and B agreed to work together, because teachers teaching different subjects worked together to plan, assess and provide feedback to learners. This had the effect of improving knowledge networking, because teachers belonging to different generations worked together, as reflected in Section 4.3.4, while performance was also improved.

Effective management of resources influences the quality of teaching and learning (Gaotlhobogwe 2012:1-27).

(A) Schools A and B decided to share mobile laboratories, because one of the schools did not have one. This improved their science results, as reflected in

Section 4.3.2, because the teachers coordinated their decisions and activities by sharing information.

The two schools did not have libraries, even though the learners were paying school fees. Through collaboration between the leadership of the schools, teachers were motivated to share resources, such as books, and generate fresh ideas, which motivated learners to work hard. Learners were encouraged by teachers to use their cell phones for research.

A shortage of resources, be it physical or human, cannot have a negative impact on teaching and learning when there is collaboration among teachers. The effective management of resources, whether new or previously used, will ensure that there is quality teaching and learning (see Section 2.2.4).

(B) One of the teachers working at School A had done Pastel Accounting (software that does accounting) in school. She offered to train the administrative clerks of the two schools so that they would be able to manage the finances efficiently. This drastically helped improve the management of finances.

This study clearly indicates that the effective management of resources is the key to the success of effective teaching and learning. In order to succeed with human resource management, different generations of teachers should collaborate.

4.4 IDENTIFICATION OF CONDITIONS THAT ENSURE THAT EFFECTIVE MULTIGENERATIONAL COLLABORATION AMONG TEACHERS DOES LEAD TO IMPROVED COMMUNICATION SKILLS

4.4.1 Introduction

The data generated in this section outline the conditions that enable the implementation of the solutions indicated in Section 4.3. These are discussed because they enable the team to understand the objectives of the research beyond its duration. They are as follows: (a) Conditions that encourage the team to be dedicated; (b) Conditions that enhance goal setting; (c) Conditions that enhance teacher development; (d) Conditions that enhance the sharing of learning by different

generations of teachers; and (e) Conditions that enhance the pooling of resources to create a cooperative, interdependent relationship.

4.4.2 Conditions that encourage a team to be dedicated

A team fosters critical thinking skills, implements hands-on problem-solving skills, enhances empowerment and provides a comfortable environment in which to grow (Mandel & Eiserman 2016:76). Members of a team should value one another's strengths, communication should be enhanced and providing feedback should be an integral part of the school culture (Root 2018:5). Furthermore, the attitude of the team members should be positive (Stone 2007:30), and the team should be supported by clear goals (Wilson & Dobson 2008:21).

Since a team fosters critical thinking skills and implements hands-on problem-solving skills, it is necessary to enhance these skills. By enhancing these critical skills, team members are able to think independently. They are able to formulate their own opinions and draw conclusions. Difficult problems are seldom solved by one teacher, but teachers working as a team are able to deal with difficult problems. By enhancing such skills, teachers better understand their goals and objectives. The team, in this case, was able to display critical thinking skills.

(A) Through brainstorming, the team was able to solve the problem discussed below through managing conflict caused by diversity.

Brainstorming

Respecting one another
Consulting one another when in need
Working together
Positive attitude
Agreeing on set goals
Working as a team

From the various points discussed above, they finally decided that if they had a positive attitude and worked together, they would be able to solve any problem.

A positive environment creates space where team members are able to value one another's strengths. This involves being open to all new ideas of other team members. It allows team members with knowledge to empower those less empowered by

providing them with knowledge and skills. This involves being supportive, recognising rewards received by other members and, at times, giving them authority. This enables team members to have empathy for and support one another.

(B) At School B, a Generation X teacher differed from a Baby Boomer who was helping a newly appointed teacher complete a register. But after a discussion, they realised that the team would be enhanced if all the members developed and supported one another through information.

After having supported the newly appointed teacher, the team members were able to be open to the new ideas brought by this teacher. By embracing this teacher, they were able to gather valuable information, and he also felt appreciated.

Communication is the foundation of team collaboration. Communication affects teamwork, whether positively or negatively (McDuffee 2019:online). The quantity and quality of communication affect the team. If the team does not communicate, its work is negatively affected, because the purpose of communication is to get a message across to others (Amos, Hu & Herrick 2005:15). Feedback is an essential part of team communication. It is necessary to provide feedback, whether positive or negative.

(C) At School A, the HoD never held any meetings with the staff under her control. She disseminated information to individual teachers through word of mouth. At one stage, she forgot to tell Mrs Dee and she never submitted the required information. When asked about it, she said:

I couldn't because the hearsay never reached my ears.

This answer belittled the HoD, but had she communicated her message well, this would not have been the result. Communication builds a team, and proper feedback motivates learners.

Having a healthy attitude contributes to the success and achievement of a team (see Section 2.6.2.3). Positive-thinking people are more likely to succeed in their work than those who are negative. They become creative and productive as teachers. A positive attitude builds a team, and people are able to work together even under stressful conditions.

(D) In one of the schools, a teacher complained about mistakes in marking done by another teacher. Instead of indicating the mistakes positively, the whole thing ballooned into a huge problem and ruined the relationship the teachers had at that school. An atmosphere of mistrust was created. Had the teacher's attitude been positive, the whole scenario would not have taken place.

From the discussions above, it can be deduced that critical thinking skills, a positive learning environment, communication and a positive attitude contribute to the enhancement of a team. This contributes to the study objective that multigenerational collaboration among teachers leads to the improvement of their communication skills.

4.4.3 Conditions that enhance goal setting

Goal setting enables people to achieve their aims without destruction and improves performance as they recognises the ability and competence in achieving the goals set (Nogu *et al.* 2014:93). Goal setting is a key factor in collaboration and, according to Locke (1996:123), helps build motivation and helps organisations run efficiently (Locke & Latham 2015:159).

A team should be supported by clear goals, because if there are no goals, the team is like a ship without a radar, which will get lost at sea with the slightest nudge (see Section 2.6.2.3). Goals are vital if a school expects to maximise and maintain productivity. Members of the team must be clear about their goals, which should be maintained by a supportive environment. Once the team has a challenging and meaningful goal, members are committed to achieving them (see Section 4.2.2).

Collaboration is an effective learning practice. Once teachers have common goals, they are able to share ideas and apply the knowledge to a common goal to improve teaching and learning (see Section 2.3.2.4). Learners excel in their work, because they model their teachers' skills. Teachers who collaborate, contribute to healthy relationships, which finally leads to a positive environment (see Section 4.3.2). To enhance motivation, people's actions to get something done must be aligned through collaboration.

From these discussions, it seems if teachers are able to collaborate and set goals, they can achieve their aims. These conditions enhance goal setting and contribute to

the aim of the study that collaboration within a multigenerational teaching force improves communication skills for teaching. The study points out that the sharing of goals within a multigenerational teaching force help improve communication skills.

4.4.4 Conditions that enhance teacher development

The image of a teacher is an important factor in teacher development (Elliot 2012:15). Professional training needs should be based on planning to improve the school as an efficient and effective production unit (Hargreaves 2012:87). According to Bernstein (2015:1), an informed teacher is the most important factor in a school and, as such, influences how the learners perform. Teacher development helps teachers acquire knowledge, skills and understanding to manage their classrooms and promote student learning. Teacher development contributes to professionalism in quality teaching and quality learning, finally ensuring improvement of schooling.

Some strategies were accepted by the team to improve the image and quality of teachers. The team adopted the Ethical Standards for the Teaching Profession. With these, teachers' image would be improved.

Table 0-21: Ethical Standards for the Teaching Profession

Care

Newly appointed teachers should be encouraged to express their commitment to learners' well-being through positive influence and professional judgement.

Respect

Teachers respect human dignity, emotional wellness and cognitive development. They need to model respect for spiritual and cultural values, social justice, confidentiality freedom and democracy.

Trust

This embodies teachers being open and honest when relating to learners and the public.

Integrity

Teachers being reliable and their actions embodied in the ethical standards of integrity and professional commitment.

(Adopted from Matondo, 2015)

Professional training needs should be based on planning to improve the school as an efficient and effective production unit. The school team decided not to open training to whomever wanted to be trained. In order to enhance the training needs, the school

had to determine what needs were to be achieved. The teacher behaviour had to be linked with the outcomes that had to be achieved. The school had to determine the competencies that the teachers were short of and, thereafter, prioritise their training needs. Instead of allowing all the mathematics teachers to attend a workshop, first they had to determine what was to be covered in the training. If none of their teachers had a problem with the content that would be covered, they did not attend.

An informed teacher influences how his or her learners perform. This was clearly indicated by the performance of mathematics learners, because their teacher allowed them to learn from one another. There was increased communication among the learners and teachers (see Section 4.3.3). The teacher was a pillar of strength for the learners, because they engaged with him at all times. An informed teacher is capable of identifying learners' needs and support such learners. Among the learners, some were slow learners, but with the teacher's support, they were able to improve their performance.

Teacher development helps teachers acquire knowledge, skills and understanding to manage their classrooms well and promote student learning. Among the skills that were acquired were interpersonal as well as intrapersonal skills. Creativity, which helps in planning lessons, was also enhanced through the team spirit. Through collaboration, teachers were able to share ideas and apply knowledge to a common goal, which led to the application of knowledge to a common goal.

This discussion clearly confirms the role played by a teacher who has knowledge and skills. Such a teacher is capable of managing the classroom well and promoting student learning. This is in line with the objective of the study to allow teachers belonging to different generations who are working together to promote their communication skills for teaching.

4.4.5 Conditions that enhance the sharing of learning

Learning is enhanced when learners actively take part in designing and implementing educational programmes and have an influence on how they are to be evaluated. They are motivated if their responses are acted upon as soon as they request feedback. Collaboration helps them to share responsibility, pool their resources, coach one

another and create a positive learning environment. Good communication creates a positive learning environment, which enables them to trust one another. This also enables them to have positive relations to be able to design and implement a learning programme.

4.4.6 Enhancing ways of pooling resources to create a cooperative, interdependent relationship

Effective management of resources affects the quality of teaching and learning (Gaotlhobogwe 2012:1-27). These resources are human resources and other resources, such as libraries, parks and finances that have to be obtained, allocated, used and evaluated to make schools successful. According to management experts, people are the most valuable resource in any organisation (Chadwick 1999:1-6), because the human factor is the engine of growth (Adjibolosoo 1995:53). These resources have to be pooled and managed, because all the decisions made by management have to be supported by appropriate resources.

The management of human resources plays a critical role in an institution. This means teachers with proper qualifications and experience should be placed at the right places. The management of the school had to prepare for staffing needs, the selection and evaluation of capable teachers, induction, training, development and ensuring safety. These teachers have to be given proper support.

To enhance resources such as finances, there was a need to train the administrative clerks on how to manage the finances of the school. This was done by allowing them to be trained in Pastel (software for finance administration). This enabled them to accept, receive and bank the money received and helped the schools eliminate losses that could happen at these schools.

Resources such as libraries and parks require funding. These could be achieved through sharing such facilities with the communities. Properly utilised resources make an organisation successful.

From the above discussions, it is clear that various factors can enhance the various identified strategies. These are applicable if the different generations work together as a team. These, if enhanced, can help to achieve the objectives of the research.

In conclusion, the study reveals the conditions that enhance and support the notion that collaboration among members of a multigenerational teaching corps can improve their communication skills for teaching, which could be through the formation of a dedicated team, setting their goals from multiple perspectives, sharing learning, developing their teachers and pooling the resources they have.

4.5 THREATS AND RISKS THAT HAVE TO BE ANTICIPATED, RESOLVED AND CIRCUMVENTED WHEN FACILITATING AN EFFECTIVE MULTIGENERATIONAL COLLABORATION AMONG TEACHERS THAT LEAD TO IMPROVED COMMUNICATION SKILLS

4.5.1 Introduction

Components of the emerging strategy for the facilitation of multigenerational collaboration of teachers towards the improvement of their communication skills were discussed in Section 4.3. This section focuses on the threats to the implementation of the emerging strategy and how they have been circumvented. The components of the strategy, such as a dedicated team, the setting of goals from various perspectives, shared learning, teacher development and the pooling of resources, are discussed below.

4.5.2 Threats towards a dedicated team

4.5.2.1 Poor communication

Poor communication lies at the root of many problems and leads to mistakes, conflict and opportunities lost (Amos *et al.* 2005:14).

(A) This situation was clearly reflected by the HoD reporting to the principal that one of the teachers had not submitted his scripts after having marked them. This was after the teacher had indicated to the HoD that he had submitted everything. Apparently, the HoD had not heard when the teacher said he had submitted everything. Because of miscommunication he reported incorrect information to the principal. In the end, this created serious conflict between the HoD and the teacher. McDuffee (2019:online) confirms that communication

affects teamwork, whether positively or negatively. The quality and quantity of communication with a team and from leadership affect teamwork.

To circumvent the threat, the principal had to arrange a meeting between the HoD and the teacher, where the problem was discussed and amicably solved.

4.5.2.2 Negative attitude

A negative attitude contributes to the failure of a team. A negative attitude discourages creativity. Having negative thinking people, makes the team members fail in their careers. It closes doors for rewards. As there are four generations of teachers working together, there were these generations that were always laughing at people who could not use the computer. This affected some teachers while others regarded it as a joke, because there were other things that could be done by them.

To circumvent the threat, management always had the different generations working together.

4.5.2.3 Poorly managed team conflict

Team conflict can lead to the objectives of the organisation not being achieved; hence it has to be solved as quickly as it emerges. There was a feeling that the principal favoured those teachers teaching commercial subjects. This nearly caused a serious problem. To circumvent the problem, the principal arranged a meeting where the issue was to be addressed. It finally emerged that one of the staff members had made a joke, which was blown out of proportion. Without this solution, team spirit would have been destroyed.

4.5.2.4 Lack of managerial involvement

The manager of an organisation must be involved in the running of the organisation. His or her presence must be felt at all times. In one of the schools, the principal was either late or absent every Monday and Friday. This influenced the teachers to be either late or absent on those days as well. Ultimately, the proper running of the school and team spirit in the school were affected. To correct the problem, the teachers requested a meeting where they asked the principal to support them and not be absent regularly.

4.5.2.5 Problems with ego

In some organisations, there are members of staff who do not want to admit when they are not clear about doing certain things. This usually happens when this is between a senior member of staff and a junior member. This leads to an organisation not reaching its goals. To circumvent the situation, there should be a mediator who will first convince the person with the ego problems to accept that he or she lacks the necessary skill. Once he or she is convinced, he or she will learn, as it happened in one school where for many years the HoD had been teaching but did not know how to manually complete the admission register.

The discussions above clearly indicate that when teachers do not communicate well and have a negative attitude, there is poorly managed team conflict, there is a lack of managerial involvement, they have problems with ego and they will be unable to have a team. This will, in the end, threaten the achievement of the objective of collaboration.

4.5.3 Threats towards setting goals from different perspectives

Positive team spirit is crucial if one wants to maximise and improve the success of the school. All team members must be clear about their goals. This entails that team members do not set unrealistic goals. Unrealistic team goals, even if supported by a positive environment, cannot be achieved. One of the schools wanted to raise funds in order to build a soccer field. Their target was one million rand within a year. But they never raised anything above twenty thousand rand. This clearly indicated that their goal was unachievable.

Not focusing on goals that have been set is a threat, as this makes the goals unachievable. This became clear when the team had the first project of raising money for the soccer field, when there was no one who was driving the project to succeed. Ultimately, neither of the two projects could be achieved.

The team failed to set challenging and meaningful goals, which finally discouraged team members from maximising their efforts. Sometimes goals fail because of procrastination at the completion or start of a project, for instance when the team members plan to start a project at the beginning of the year and end up starting it during the middle of the year. This was reflected in the question Mrs Dee asked one

of the team members – "When are we going to get the plan for our fund raising? It is already May month." This already showed that the team had underestimated the task ahead.

4.5.4 Threats towards shared learning

The team realised that adults learn better if they fully participate in such learning, but failure to involve them has a detrimental effect. An effective way of allowing the different generations of teachers to construct meaning under several circumstances, such as through knowledge and skills with others, is when one allows them to participate in such learning. This was not the case in the two schools before the arrival of the team. Each generation had its own way of doing things. There was no shared learning.

There is also the threat of failing to connect learning to experience. Most teachers in these schools could not connect their new knowledge to the previously acquired knowledge. This was reflected mostly in business studies lessons, where a teacher failed to indicate to the learner that a certain shop next to the school was an example of sole proprietorship as a form of business ownership. This was failure to connect what they learnt to be applicable to the work or responsibility they had. Different generations of teachers are motivated if what they learn is relevant to the job they do. It would not be interesting for the teachers to share learning relevant to athletics unless they were athletics coaches, which call for them to be informed early on their training needs and the goals they have to achieve.

Learning can also be affected by the environment, through failure of the environment to promote self-esteem. Some teachers had just obtained degrees that were relevant to their work; however, instead of being congratulated, they were mocked and the idea was conveyed that their colleagues thought they only wanted to be promoted. The behaviour of these colleagues did not reflect respect for individual teachers.

4.5.5 Threats towards teacher development

The team noted that teachers were expected to attend teacher development training; however, they did not attend. This was attributed to the way the training programmes

had been arranged. The Department of Education did not take into account the needs of the teachers when it arranged the training. It is necessary for the Department to first do research to establish the training needs of the teachers. In one instance, a teacher was expected to attend training for courses she had already done when she had obtained an Advanced Education Certificate.

Teacher development is also affected by stress caused by learner behaviour in the classroom. Teachers are expected to keep everything in the classroom orderly. They are unable to cope with unruly behaviour in the classroom. This leads to their being unable to coordinate with other teachers. In one of the classrooms, learners were making such a noise that it seemed as if there was no teacher in the class, resulting in the next-door teacher having to come and support her.

Other factors, such as overcrowded classrooms, a lack of respect from learners, insufficient teaching and learning materials and a lack of professionalism, hindered teacher development. In these two schools, learners were sharing materials. In some instances, notes were written on the chalkboard, while through multigenerational collaboration, cell phones could have been used for such communication.

Conflict creates a problem that encourages barriers to opportunities for teacher problems, such as conflict fuelled by a lack of respect. The HoD requested one teacher to attend a workshop, but did so displaying a lack of respect. This created a conflict situation, which also had to do with cultural differences. The situation ended with disciplinary action taken.

Poorly designed professional development opportunities discourage teachers to attend training sessions. Sometimes opportunities for teacher development are provided during the day, which leads to teachers missing class time. This can become a problem when teachers are expected to attend trainings, but they do not. In these schools, a developmental training session for mathematics was provided, but some teachers opted not to attend.

4.5.6 Threats towards pooling resources

The greatest threat to pooling resources, the team discovered, was a lack of cooperation among the different generations of teachers. This could even lead to

division in the school. It took time to convince the teachers that through either station teaching or reverse mentoring, different generations of teachers were able to work together.

Time management was another problem. This was revealed when the teacher tasked with locking the gate, could not do so, which threatened the smooth running of the school. If the teachers did not arrive on time to teach the learners on time, the smooth running of the school was affected. In order to manage time well, the school gates had to be locked at a certain time and the time register signed.

The pooling of human resources was influenced by recruitment, placement, training and mentoring. If these were not properly done, it threatened the way learners were taught. A lack of knowledge by teachers would also influence the way learners were taught. The teachers collaborated and helped one another.

A lack of finance also threatened the development of the school. There were, for instance, not enough classes and books, hence learners were sharing books in very overcrowded classrooms. Through the influence and collaboration of teachers, they were introduced to technology where they could be sent learning material via their phones. Also, the schools could not develop their grounds because resources were very scarce. The two schools had libraries, but these were poorly resourced, with few books.

From the above paragraphs, indications are that a lack of resources can threaten the implementation of an envisaged strategy; hence it was necessary to circumvent them through multigenerational collaboration.

In conclusion, the study points out that it was necessary to circumvent threats in order to reinforce the sustainability and growth of the study.

4.6 PRESENTATION OF THE TOTAL STRATEGY THAT HAS BEEN TESTED IN THE FIELD TO FACILITATE MULTIGENERATIONAL COLLABORATION

4.6.1 Introduction

In Sections 4.2 to 4.5, the process of developing a strategy to facilitate multigenerational collaboration among teachers towards the improvement of their communication skills for teaching was discussed. This, firstly, included the need to design a multigenerational collaboration strategy of teachers towards the improvement of their communication skills for teaching. The second objective of the study related to the analysis of the components of the strategy. The third objective involved conditions that enabled the implementation of the strategy to be successful. The fourth objective focused on threats that affected the successful implementation of the strategy and how they were circumvented. The fifth objective concentrated on the indicators of successful implementation of the strategy, which are discussed next.

4.6.2 Effectiveness of teaching and the sharing of knowledge

It is established that once the members of a multigenerational teaching corps collaborate, effectiveness in teaching is noted. This happens because teachers start working together as a team – they share knowledge, mentor one another and, in the end, their competence is enhanced. This keeps them motivated to work together as a team, which, in turn, leads to their professionalism being improved.

By sharing knowledge, teachers are able to improve their own teaching through learning from and evaluating the effective practice of others. This enables them to work collaboratively with specialist teachers inspiring the less experienced. They are able to evaluate the effectiveness of their teaching materials and to arrange their teaching activities.

4.6.3 Setting goals together

Teachers are able to be focused and set goals together in order to improve their performance. This enables them to analyse and determine their own teaching strategies, which include setting clear objectives for their lessons, using effective disciplinary skills, managing their classrooms well, increasing their knowledge of the

subject matter and developing good communication skills. It also encourages them to collaborate with one another. This supports the requisites of the National Policy Framework for Teacher Development in South Africa (Department of Basic Education 2006), which encourages teachers to set goals in order to continue with professional development.

4.6.4 Teacher development

Most teachers are encouraged to attend training sessions, which enables them to acquire knowledge and skills. Some teachers are aided to acquire computer skills, which enable them to use computers when teaching. There is also the improvement of teachers' professional competence, which enables them to manage their classrooms well and instil skills of explaining and questioning, which promotes student learning (Wragg 1983:5). Teachers are encouraged to actively take part in designing and implementing educational programmes. This encourages them to be responsible in managing their resources.

4.6.5 Partnerships to overcome resource scarcity

Schools are able to effectively manage limited resources that have an impact on the quality of their teaching. Teachers are able to make decisions supported by appropriate resources. To manage limited human resources, they use station teaching, which enables learners to be taught by two teachers with different skills. To curb the shortage of physical resources, they jointly organise seating arrangements to provide quality teaching. This includes using previously used material to manage limited resources.

In conclusion, the full implementation of the study, as previously stated, overlaps beyond the duration of the study.

CHAPTER 5: FINDINGS, CONCLUSIONS AND RECOMMENDATIONS FOR DESIGNING THE STRATEGY

5.1 INTRODUCTION

The study aimed at designing a strategy to facilitate multigenerational collaboration among teachers towards the improvement of their communication skills for teaching. In order to operationalise this aim, the final chapter presents lessons learnt and what was covered in the preceding chapters with the aim of presenting findings. This is followed by recommendations of the study with the view of designing the strategy to facilitate multigenerational collaboration among teachers towards the improvement of their communication skills for teaching. The limitations of the study are indicated, with the understanding that gaps are highlighted for future interventions of the study. The chapter concludes by presenting the way forward in terms of what has been learnt.

5.2 AIM OF THE STUDY

The aim of the study was the designing of an effective strategy to facilitate multigenerational collaboration among teachers towards improving their communication skills for teaching. In order to broaden the understanding of the problem and make sense of the answers given by the co-researchers, data were presented, analysed and interpreted according to the five objectives identified in the study. This was done to justify the need to employ multigenerational collaboration in improving communication skills for teaching and to analyse the challenges encountered when using multigenerational collaboration with the view to develop strategies to use in order to improve communication skills for teaching. The conditions under which the strategies and solutions were to be implemented were then analysed to be clearly understood. Lastly, the indicators of success and benefits derived from the envisaged strategy were discussed to ensure that they were truly in line with the strategy.

In order to achieve the aim of the study, an intensive literature review was undertaken with the objective of establishing the best practices from the countries in order to learn from them. The literature constructs were compared with the data obtained from the participants with the objective of developing a framework relevant to the development

of a strategy that facilitates multigenerational collaboration among teachers towards the improvement of their communication skills.

5.3 CHALLENGES INHIBITING EFFECTIVE MULTIGENERATIONAL COLLABORATION AMONG TEACHERS RESULTING IN POOR COMMUNICATION

5.3.1 Lack of team work

The study revealed that there was no teamwork among the participating teachers that could be dedicated towards the designing of the strategy to facilitate multigenerational collaboration towards the improvement of their communication skills. This was revealed when the teachers and the coordinating team held their first meeting to establish the strengths and weaknesses they had. The lack of teamwork clearly became apparent when two business studies teachers, a Generation Y teacher and a Baby Boomer, used different methods to impart knowledge. The Baby Boomer used the textbook, without letting learners interact with her, while the Generation Y teacher used the data projector with the advantage of integrating technology to redefine the curriculum. In another situation, poetry teachers failed to help each other, even though it was clear that one of them experienced problems with teaching poetry. Furthermore, teachers failed to appreciate the effectiveness of the appraisal system. The elderly teachers appreciated the role played by teacher appraisal in improving teacher performance. On the other hand, the Generation Y teachers felt it was very subjective and used to penalise teachers. A lack of collaboration among different generations of teachers denied learners the opportunity to be exposed to numerous teaching strategies. It also denied teachers the ability to draw from different teaching methods and to identify, evaluate and apply solutions based on relevant evidence and procedures; hence it was established that there was a need to set up a dedicated team.

The conclusion that could be drawn from this was that before the study, there was no teamwork among the teachers, learners and other stakeholders. This led to the schools failing to achieve some of their objectives. This, in a way, implied that they could not appreciate the talents each member had that could have contributed to the success of the learners.

5.3.1.1 Recommendations

The study recommends that the success of a school and its activities depend on all those connected to the school working as a team, irrespective of their age. The team should ensure collaboration among the different generations of teachers, among the teachers and learners, as well as among learners themselves and other stakeholders connected to the school. By working together, they will be enabled to share expertise, foster critical thinking skills, build mutual respect and develop professional quality of teaching. The success of the strategy depends on all the different generations of teachers willing to work with one another and willing to help in difficult cases. Parents should also be made active members of the school, because without the support of parents, the school will suffer. Parental involvement will enable parents to be involved in their children's work. Finally, the ultimate success of teamwork depends on the support of leadership of the school, who should allow buy-in from all the teachers and other stakeholders connected to the school. This will enable them to create a positive school climate.

5.3.2 Failure by teachers to set goals from multiple perspectives

The study established that the different generations of teachers failed to set goals from multiple perspectives. They failed to discuss professional and financial goals. This was indicated by management failing to establish the strengths and weaknesses of the teachers teaching certain subjects before doing their allocation of subjects. Subjects were allocated to teachers depending on how long they had been teaching at the school. No opportunity of professional development was provided to the teachers.

This discouraged different generations of teachers from learning from one another, thereby hindering the team from implementing a common strategy. The lack of a strategic plan contributed to teachers failing to discuss their lesson plans and identifying the best approaches. Many teachers, the majority of which were from Generations X, Y and Z and teaching lower grades, were demotivated, because some were well qualified to teach senior classes.

It became necessary that the team should develop goals from multiple perspectives that allow teachers to be focused and have a vision that unites their efforts to enable

them to achieve their goals. The unifying vision was seen as a critical issue, because it enabled them to draw support in terms of interest and knowledge from other teachers. Goal setting ensured that the team shared competency and remained motivated.

5.3.2.1 Recommendations

The success of a school depends on goals set by all the generations of teachers working at the school. This enables them to work as a team. For instance, after the schools under study decided to improve their mathematics and science results as their goal and they all agreed to use reverse mentoring, their mathematics and science results improved dramatically. The presence of shared goals enables teachers to have a friendly rapport. Also, information is immediately disseminated to all members of the team. Teachers become motivated because they have a sense of belonging, since all members are involved in the development of the goals. This enables them to learn from one another.

The achievement of all the set goals depends on having an atmosphere that is conducive to shared goals, which should be reflected by all team members. Furthermore, there should be open communication that encourages mutual respect among team members.

5.3.3 Lack of teacher development

The study reflects a lack of teacher development and failure to reflect the image of the teacher as important factors. At these schools, there was no planning to help teachers with their development; hence teachers could attend any training whether relevant to their needs or not. Younger generations were never orientated to the school policies; as a result, in most cases they did not abide by the policies. For instance, according to the school policy, teachers were not supposed to wear jeans, but nobody had emphasised the policy to them, so usually the Generation Z teachers were casually dressed.

The school failed to understand that professional training needs should be based on planning to improve the school as an efficient and effective production unit. Instead of sending a teacher with mathematics problems for training, they sent one who excelled.

This school failed to understand that teacher development helps teachers to acquire knowledge and skills. In addition, teachers failed to attend developmental workshops. This led to their failure to coordinate learner activities, which, in turn, led to failure of the organisation.

5.3.3.1 Recommendations

The study recommends teacher development. Teacher development helps teachers acquire knowledge and skills that enable them to manage their classrooms well and promote student learning. Development of all the generations of teachers contributes to professionalism, quality teaching and quality learning. It energises learners to work hard and encourages teachers to do their best at all times. Different generations of teachers should be exposed to different training opportunities, organised by the education department or by the school. Teacher development influences how learners learn, which supports the notion that a knowledgeable teacher affects the performance of the learners.

Different generations of teachers need to work together and engage in their development. This validates the notion that different generations of teachers are able to acquire skills and knowledge that contribute to the professionalism of the teachers. This was clearly reflected by the difference in teachers' performance, reflected by the results of teachers who had attended a workshop and those who had not attended it.

5.3.4 Failure to share learning by different generations of teachers

Different generations of teachers failed to actively take part in designing and implementing educational programmes. This led to their failing to influence how learning would be evaluated and the responses they expected when receiving feedback. There was no shared learning, which led to their failing to share responsibility. The different generations of teachers worked as individuals and never supported one another. The fact that one school had state-of-the-art computers did not benefit all the teachers. Teachers from Generations X, Y and Z were computer-literate, but that did not benefit the Baby Boomers who could hardly use the computers. This meant they did not use one another as a resource, which was detrimental to the school, because the learners did not benefit from their behaviour.

5.3.4.1 Recommendations

The study recommends that different generations of teachers actively take part in designing and implementing educational programmes. For such programmes to succeed, teachers should influence how their learning should be evaluated. These teachers are encouraged to share responsibility, and not as different generations but as a team, because shared learning influences collaboration.

Through collaboration, teachers are able to coach one another and are able to engage in periodic exchange of ideas (Robinson & Schaible 1995:58). When teachers from different generations share knowledge, they are able to bring a positive learning environment to the school. They will act as resource centres to one another and will be able to solve the problems they have. Good communication helps them to build trust, share knowledge and establish a positive environment in the organisation. Through shared learning, teachers are encouraged to share responsibility and not work as individuals but to pool their resources.

5.3.5 Failure to pool resources to create a cooperative, interdependent relationship

The study revealed that the human resources of these schools were not fully utilised. Some teachers, capable of teaching certain subjects, were not allowed to, because they had not been working at the school for long. It therefore means that subject allocation was per generation, because the expertise of some generations was overlooked. This had a negative impact on the quality of teaching and learning.

The schools failed to pool their resources together, which had a negative impact on the running of the schools. One school had mobile laboratories, but failed to work with the school that did not have one. Neither of the two schools had libraries.

The administrative clerks were not competent with some of the software needed for their administrative work. Even though there was an offer to train clerks, they showed no interest in this opportunity. This situation needed the headmasters' input. One headmaster influenced the administrative clerks to receive training, but the other failed to manage the clerk efficiently. In order to succeed with human resource management, different generations of teachers, as well as their managers, should collaborate

effectively because the management of resources is the key to the success of effective teaching and learning.

5.3.5.1 Recommendations

The resources available at the schools have to be managed effectively. In terms of human resources, teachers should be allocated the subjects they are qualified to teach and be encouraged to work as a team comprising different generations. Teachers from Generations X, Y and Z should help the Baby Boomers with technology, such as using computers. On the other hand, the Baby Boomers should help the younger generations with class management and discipline. Libraries have to be fully utilised, and finances have to be well managed, which means they have to be obtained and well allocated. All the decisions made by management have to be supported by appropriate resources.

Resources have to be pooled together in order to be successful. This was reflected when the two schools agreed to share resources, where different generations of teachers teaching different subjects planned, assessed and provided feedback to learners. This had the effect of improving knowledge networking, because teachers belonging to different generations worked together (see Section 4.3.4), which had the additional effect of improving performance.

The leadership of the school should be involved. Through collaboration between the leadership of the schools, teachers could be motivated to share other resources, such as books and new ideas. This would motivate learners to work hard. Learners could also be encouraged to use cell phones for research.

Schools could be encouraged to get materials, even previously used, to source their libraries. This could be encouraged by having class competitions to collect previously used books and other resources, and honouring learners with badges or trophies.

5.4 VALUE OF THE STUDY

The greatest value of the study was working with co-researchers in their natural setting. This brought the greatest wealth of knowledge to people who had never engaged in any research. When the co-researchers analysed the data through PAR,

the value of working as a team was felt. All of the team members were actively involved and collaborated until the process was completed.

Through PAR, the co-researchers were able to advance their knowledge, learn from one another and be encouraged to see the completion of the process. They were empowered to gain skills that could be applicable to their daily lives. This also means continued collaboration among different generations of teachers. As there were two schools involved, the different generations of teachers from these schools were able to pool some resources. It was very interesting for the co-researchers to plan, organise and implement their decisions together.

Teachers are enabled to realise the limitations they have, because there is openness. They are able to present their lessons in the presence of their colleagues who can amicably critique one another. Baby Boomers who cannot use technology are enabled to work with other generations when presenting their lessons.

5.5 LIMITATIONS OF THE STUDY

Even though the study was successful in establishing a strategy to help facilitate multigenerational collaboration among teachers to improve their communication skills for teaching, it recognises the effects and influence of what PAR might have on the establishment of such a strategy. Further studies are needed to establish other factors that might influence the establishment of such a strategy.

The research was conducted in two schools; however, one identified school withdraw from the research, and a new school was used. The co-researchers from the two schools displayed elements of competition, which in some cases led to some of them absconding from the team. Using learners as co-researchers limited their openness to discussions, because teachers were part of the team.

5.6 SUMMARY OF THE STRATEGY

1. Establishment of a team

Team members are orientated and made to understand their roles. This involves establishing the strengths, weaknesses, opportunities and threats they have.

2. Goal setting

Goals are set in order to build motivation and ensure that the organisation runs smoothly. This also ensures that members of the team are sure about their goals.

3. Teacher development

Teacher development helps teachers to acquire knowledge and skills in order to collaborate as different generations. It also helps them to acquire skills and understanding to manage their classrooms and promote student learning.

4. Sharing learning

Learning is shared to motivate teachers to work as a team and create a positive learning environment.

5. Pooling resources

Resources, such as human resources, libraries and finances, are obtained, allocated and effectively pooled. Teachers with the right qualifications and experience are placed in the right places. Facilities are shared, and in cases of shortages, even previously used materials are used.

5.7 CONCLUSION

Facilitating multigenerational collaboration enables diverse generations of teachers to learn and share from one another. This has the effect of validating one another's strengths, helping them share goals, share learning, helping one another in developing skills and pooling resources. These are the essential skills that allow them to participate in group discussions, have secure knowledge of their subjects and curricula and work together cohesively and professionally towards a common goal. Once this has been achieved, the communication skills of teachers are improved. Communication skills include the ability of the teacher to have one-on-one discussions, to participate in group discussions or meetings, to give formal presentations or speeches and to have a secure knowledge and understanding of their subjects and curriculum areas.

However, some factors hamper the achievement of collaboration, such as a lack of a dedicated team, poor communication, negative attitudes, poorly managed team conflict, ego problems and a lack of managerial involvement (see Section 4.5.2). Not focusing on goals, procrastination and failure to set meaningful goals may affect the setting of goals. Sharing of learning may be affected by failure to connect learning to experience. This is also affected by failure to connect what they learn to be applicable to their work environment (see Section 4.5.4). Non-attendance of training workshops affects teacher development. Failure to take the needs of teachers into account, stress, overcrowded classrooms, a lack of respect from learners and shortages of teaching materials affect teacher development (see Section 4.5.5). Poor recruitment, placement and training of human resources affect multigenerational collaboration and result in poor time management, a lack of cooperation among the different generations, a lack of knowledge and finance and a shortage of classrooms (see Section 4.5.6).

As a solution to the above challenges, numerous strategies have been employed, such as encouraging group work through team teaching to share responsibility (see Section 2.3.2.4), sharing decision making regarding mutually determined goals and pooling resources (see Section 2.3.2.4). Another idea is endorsing one another's talent through offering opportunities to train and coach one another. In light of the above-mentioned strategies, multigenerational collaboration is improved.

Successful multigenerational collaboration is evidenced by effective teaching, the sharing of knowledge and embracing mutual team goals, which help establishing the sharing of responsibilities and knowledge. It promotes enriched confidence and validation of one another's competencies, which eliminate conflict and encourage partnerships to overcome scarcity of resources.

There are, however, challenges faced by a multigenerational teaching corps when collaborating. Different generations have differing mindsets and communication styles. Generation X differs from Generation Z. Generation X believes in hard work, whereas Generation Z is technologically advanced and easily gets bored with one job, but enjoys moving from one job to another. The friction among different generations is aggravated by new technology and work patterns. The key is to be able to effectively

address and take advantage of the differences in values and expectations of each generation.

Failure to reflect a positive attitude towards problem solving and shared decision making by a multigenerational teaching corps poses a challenge to collaboration. People may form and hold multiple attitudes towards the same object. People's attitude affects every aspect of their lives, from the way they solve problems to how they communicate at work. A positive attitude creates high tolerance to frustration, encourages participation by others, controls impulses, accepts responsibility and makes critical decisions. There are other several benefits of attitude specified by Breckler and Wiggins (1989:418), for instance that attitude guides behaviour towards valued goals, simplifies the processing of information, allows people to communicate about personal issues and has a direct influence on behaviour.

There is a lack of mutual respect among different generations, because each generation has its own set of values, is unimpressed with authority and believes that authority has to earn its respect. This results in these generations being unable to participate in formal speeches. Henneman *et al.* (1995:103-109) are of the opinion that a lack of mutual respect creates a break in communication; as a result, employees do not find it necessary to exchange important information that communicates organisational updates. Impaired communication prohibits the achievement of goals and endorsing one another's competencies. Teachers are unable to have one-on-one conversations and group discussions and do formal presentations. Moreover, they lack knowledge of the subject matter. As these generations differ in terms of technology usage, they are unable to pool resources together and, in the end, they fail to achieve their common goals.

It can clearly be said that generational differences can lead to frustration, conflict and poor morale, even though the same differences can lead to increased creativity, productivity and, finally, success. Some teachers experience anxiety or confusion about collaboration. A lack of confidence, teaching experience, power dynamics and roles and responsibilities may affect multigenerational relationships. Moreover, barriers such as individualism in teaching, the absence of shared professional identity and teachers' differing pedagogical orientation are found.

Learning how to communicate with different generations eliminates major misunderstanding in the school; hence the need for this study to focus on multigenerational collaboration in order to improve communication skills for teaching.

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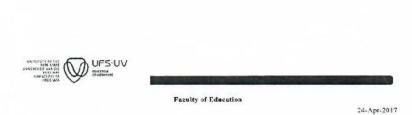
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APPENDIX A: ETHICAL CLEARANCE LETTER



Dear Mrs Makhouli Elizabeth Kelello Maibi

Ethics Clearance: Developing a strategy to facilitate multigerational collaboration of teachers to improve their communication skills for teaching.

Principal Investigator: Mrs Mukhoali Elizabeth Kelello Maibi

Department: School of Education Studies (Bloemfontein Campus)

APPLICATION APPROVED

With reference to you application for ethical clearance with the Faculty of Education, I am pleased to inform you on behalf of the Pubics Board of the faculty that you have been grasted ethical clearance for your research.

Your ethical clearance number, to be used in all correspondence is: UFS-HSD2017/0137

This ethical clearance number is valid for research conducted for one year from issuance. Should you require more time to complete this research, please apply for an extension.

We request that any changes that may take place during the course of your research project be submitted to the ethics office to ensure we are kept up to date with your progress and any efficial implications that may arise.

Thank you for submitting this proposal for ethical clearance and we wish you every success with your research. Yours faithfully



Dr. MM Nkoene Chairperson: Ethics Committee

Education Ethics Committee
Office of the Dean: Education
Tr = 27 (0)51 4(1) 9583 Ft = 27 (0)56 546 J113 E: NkoaneMM@ufs.ac.za
Winker Discke Building P.C. Box/Posbus 335 Bloomfentein 9300 [South Africa wave nfs.ac.za.





APPENDIX B: APPROVAL LETTER TO CONDUCT RESEARCH FROM FREE STATE DoE

Enquiries: KK Motshumi Ref: Notification of research: ME Maibi Tel. 051 404 9221 / 079 503 4943 Email: K. Motshumi@fseducation.gov.za



The District Director Motheo District

Dear Mr Moloi

NOTIFICATION TO CONDUCT RESEARCH PROJECT IN YOUR DISTRICT BY ME MAIB!

 The above mentioned candidate was granted permission to conduct research in your district as follows;

Topic: Developing a strategy to facilitate multigenerational collaboration of teachers to improve their communications skills for teaching.

Schools involved: Seemahale and Ntediseng Schools.

Target Population: 2 Principals and 9 Grade 9-12 teachers.

Period: From date of signature to 30 September 2017. Please note the department does not allow any research to be conducted during the fourth term (quarter) of the academic year nor during normal school hours.

Research benefits: This will help teachers share skills, resources and be tolerant of one another. The department of education will use the strategy in training educators in order to improve curriculum delivery and sharing skills. The principal of the school will use the strategy for training and induction of new teachers. Youth will understand the role played by different generations of teachers

The Strategic Planning, Policy and Research Directorate will make the necessary arrangements for the researcher to present the findings and recommendations to the relevant officials in your District.

Yours sincerely

DR JEM SEKOLANYANE

DATE: 25/07/2019

RESEARCH APPLICATION ME MAIB! NOTIFICATION edited: 21 july 2017 MOTHEO district
Strategic Planning, Research & Policy Directorate
Private Dag X20065, Bioemfontein, 9300 - Old CNA Building, Room 316, 3rd Floor, Charlotte Mezieke Sueet, Bloemfontein
Tel: (051) 404 9283 / 9221. Fax: (086) 6578-678

APPENDIX C: NOTIFICATION OF PERMISSION TO CONDUCT RESEARCH FROM FREE STATE DoE



Faculty of Education

24-Apr-2017

Dear Mrs Makhoali Elizabeth Kelello Maibi

Ethics Clearance: Developing a strategy to facilitate multigerational collaboration of teachers to improve their communication skills for teaching.

Principal Investigator: Mrs Makhoali Elizabeth Kelello Maibi

Department: School of Education Studies (Bloemfontein Campus)

APPLICATION APPROVED

With reference to you application for ethical clearance with the Faculty of Education, I am pleased to inform you on behalf of the Ethics Board of the faculty that you have been granted ethical clearance for your research.

Your ethical clearance number, to be used in all correspondence is: UFS-HSD2017/0137

This ethical clearance number is valid for research conducted for one year from issuance. Should you require more time to complete this research, please apply for an extension.

We request that any changes that may take place during the course of your research project be submitted to the ethics office to ensure we are kept up to date with your progress and any ethical implications that may arise.

Thank you for submitting this proposal for ethical clearance and we wish you every success with your research.

Yours faithfully



Dr. MM Nkoane Chairperson: Ethics Committee

Education Ethics Committee Office of the Dean: Education

T: -27 (9)51 401 9083 F: -27 (9)86 546 1113 E: NkoaneMM@ufs.ac.zi Winkie Direko Burlding: P.C. Box/Posbus 335 Dloemfentein 9309 | Sout.) Africa www.nkse.zx



