

<p>CHAPTER 6</p> <p>Empirical Research</p> <p>Design</p>
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"In the evolution of educational ideas and practices, research goes on with expanding energy and breadth of field to attest to the conviction that problems to do with learning and growing up need not be seen as intractable obstacles but can be overcome"
(Freebody, 2003:218).

6.1. Introduction

Psychologists, teachers, and schools play an important role in providing protective measures and assets to middle adolescents who need to develop and maintain their resilience for coping with stressful life events. The South African school system must create a safe, positive and achievement-oriented context where middle adolescents develop a sense of purpose and promote connectedness with significant others. Schools can also teach valuable life skills and competencies which will empower middle adolescents to rebound against adversity. Furthermore, schools can ensure that every learner develops the foundation competencies needed for further learning and the development of a positive self esteem. Therefore the role of the school is vitally important in enhancing resilience modalities by promoting emotional, social and cognitive competencies, identifying assets to be utilized and attending to the middle adolescent needs. Freebody (2003:11) refers to Hunter who suggests the following general functions that schooling executes:

- ❖ *"a pastoral function, that children are given caring and humane environments in school in which to grow and develop;*

- ❖ *a skilling function, that schools have a significant role in the production of a skilled and competent workforce;*
- ❖ *a regulative function, that schools transmit forms of orderliness and control;*
- ❖ *a human-capital function, that the investment of effort and money in schools directly enhances economic productivity;*
- ❖ *a function of middle adolescent expression, that schooling provides the context in which middle adolescents can learn to explore, develop and express their personal goals and aspirations;*
- ❖ *a cultural-heritage function, that young people are introduced to the ways of thinking and acting that have been valued over time;*
- ❖ *a political function, that schools produce a citizenry dedicated to the preferred political principles of the society. "*

Considering all the functions that Hunter describes that a school executes it becomes apparent that the development of modalities that foster resilient functioning is lacking. If the significant role players in the school context want to develop middle adolescents holistically to become optimally functioning citizens of society they should address the emotional, social and cognitive modalities of middle adolescents. This research is essential to empower the role players in the school context (teachers and psychologists) to appraise, enhance and develop the resilience modalities necessary for resilient functioning. Research undertaken by the helping professions, in particular Educational Psychology, must focus on empowering the stakeholders in the school context to assist, develop, execute and utilize resources for the teaching and development of middle adolescents by rendering their services as a developer and consultant. The need identified by this researcher working within the school context is to equip learners to be able to rebound against the stressors and challenges of life as well as being able to adapt with the continuous changes of society.

The aim of this research is to describe and explore the process of how to appraise (Resiliency Scale), develop and enhance (Resilience Enhancement Kit) the modalities of resilience within the school context that can be used by psychologists and teachers. The nature of the research problem and aim guide the choice of research methodology for this research and the understanding of the concepts through the literature review.

6.2. Literature review

The research of literature is an integral part of the research process and forms the pivot around which the research is consolidated and integrated. The literature review forms the deductive frame of reference of the investigation. "*The literature review summarizes and analyzes previous research and shows how the present research is related to this research. It is selective and the present research contributes to existing knowledge*" (McMillan et al., 1997:55). The purpose of this research's literature review is to demarcate theoretical concepts that form the basis for the concept clarification and operation of variables in the Resiliency Scale (Likert-type questionnaire) to appraise the middle adolescents' level of resiliency as well as the theoretical basis for the modalities of resilience of the Resilience Enhancement Kit. The literature review is also an amalgamation of the available information regarding the competencies of the resilience modalities of the middle adolescent, which is often only investigated as isolated components. The information gathered for the literature review was extracted from books, articles in journals, periodicals and scientific electronic information from the Internet. The literature review informs on the selection of research methods for studying the resilience modalities.

6.3. Methodology of the research

The methodology refers to the way in which the researcher comes to know what is known about the phenomenon. "*The methodological design often evolves*

during the research; interpretive analysis is applied to narrative data; meanings are sought in specific social/ cultural contexts with the possibility of theoretical generalization and research strategies aim to uncover relations among phenomena, inductively discovering theory out of categories that emerge from research" (Eric Clearinghouse, 2004:2). This research is conducted from a combined qualitative- and quantitative approach.

These two approaches are seen as complementary to each other within a model described by Creswell (1994:173) as a dominant-less-dominant model. The research will mainly be grounded in the qualitative approach but quantitative information will be collected from the statistical analysis of the sample group's responses. *"We are happy to combine qualitative and quantitative methods in the same research where this is viewed as necessary and helpful in answering the research questions posed. We acknowledge that qualitative and quantitative data do not calibrate exactly, but see this as a manifestation of the different ways in which each method contributes to an understanding of the research question. Our search is for complementary extension that is using different forms of evidence to build greater understanding and insight of the social world than is possible from one approach alone" (Snape & Spencer, 2003:23).* Both the qualitative and quantitative approaches to this research will be discussed and how it was utilized.

6.3.1. Qualitative research

The qualitative approach seeks illumination, understanding and extrapolation of similar situations to understand phenomena in context-specific settings. A dominant qualitative approach gives the researcher leeway to explore the intricate aspects of meaning attribution. In this research, it relates to the ways in which the middle adolescents' resilience modalities can be enhanced and developed as well as gaining insight into what middle adolescents perceive as influencing their level of resilience that cannot always be measured by a quantitative approach. Snape and Spencer (2003:3) quote Denzin and Lincoln's

definition of qualitative research as *"a situated activity that locates the observer in the world. It consists of a set of interpretive, material practices that makes the world visible. Qualitative research involves an interpretive, naturalistic approach to the world. This means that qualitative researchers research things in their natural settings, attempting to make sense of, or to interpret, phenomena in terms of the meanings people bring to them."* The inductive qualitative approach uses the natural context as the source of information and in this research it is the middle adolescent in his or her school context.

The interpretive aims will be to ascertain how the middle adolescents make sense of their life world and what meanings they attribute to their experiences and how they utilize their resilience modalities to rebound against life's adversities. The information gained from the middle adolescents will be interpreted according to the middle adolescents' context and developmental phase as well as the theories underlying Educational Psychology's view on resilience as discussed in the previous chapters. Qualitative research pays attention to the idiosyncratic distinctiveness of each participant's context. *"Qualitative research is well suited for the purposes of description, interpretation and explanation and the reason for choosing a qualitative methodology revolves primarily around the type of question or problem to be explored. Questions that begin with how or what lend themselves to qualitative research whereas why questions are more appropriately approached from a quantitative perspective. The how or what questions generally arises because little is known about the problem, the theory is underdeveloped and cannot explain a phenomenon accurately or used to gain new insights into problems about which information already exist"* (Eric Clearinghouse, 2004:3).

In this research, the question posed relates to how the resilience modalities of the middle adolescent can be enhanced. The Resilience Enhancement Kit requires the middle adolescents to draw upon their socially constructed prior knowledge to participate in activities as well as working within culturally diverse groups. Snape and Spencer (2003:4) describe the perspective of the researcher and the researched as *"an 'emic' perspective, i.e. the perspective of the people*

being studied by penetrating their frames of meaning, viewing social life in terms of processes, providing a holistic perspective within explained contexts and sustaining empathic neutrality whereby the researcher uses personal insight while taking a non-judgemental stance."

Educational psychologists and teachers can maintain a non-judgemental stance by interpreting the thoughts, feelings and behaviour exhibited by the middle adolescent from their frame of reference and phase of development as well as keeping their cultural context in mind. The research of the phenomenon of resilience and the enhancement thereof within the school context requires the middle adolescent to apply self-reflective strategies, internalize attitudes, knowledge, understanding, values and skills, which are context specific. The observation of the application of these above competencies in real life contexts by the researcher supports the choice of a qualitative approach. *"Qualitative research is based on a naturalistic-phenomenological philosophy that views reality as multilayered, interactive and shared social experience interpreted by individuals (McMillan et al., 1997:392).*

The qualitative approach requires the researcher to observe, describe and interpret settings and phenomena as they are, but also functioning as the instrument for collecting information. In this research, the collection of information will be by means of observations and an open-ended question posed to the participants, which will be discussed further in this chapter. My role as researcher in this study will be that of participant-observer where there was interaction with the participants in order to administer the Resilience Enhancement Kit and Resiliency Scale as well as observing and making field notes regarding the participant's responses.

This research focus on case studies using an ethnographic methodology. *"Ethnography is analytical descriptions of social scenes, individuals and groups that recreate their shared feelings, beliefs, practices and actions to make sense thereof. Reality is believed to be a social construct that individuals or groups*

derive or ascribe meanings to specific entities such as events and persons" (McMillan et al., 1997:427). The case study design focuses on the analysis of a phenomenon that needs to be understood in depth and in the research it is the resilience modalities of the middle adolescent. Freebody (2003:81) is of opinion that the goal of a case study is to put in place an inquiry in which both researchers and educators can reflect upon particular educational practice and in this research, it refers to the ways in which resilience modalities can be fostered and appraised in the school context, specifically an inner-city high school. Lewis (2003:76) reinforces the idea that studying a phenomenon such as resilience through case studies aids in understanding the concept because the middle adolescents' perspectives that are rooted in a specific context can be ascertained.

Participating in the activities of the Resilience Enhancement Kit within the school context requires the middle adolescents to reflect and evaluate their perception and understanding of their resilience modalities as well as give verbatim accounts of what influences their levels of resilience (open-ended question) and so more insight into the phenomenon of resilience can be gained. The dominant qualitative approach is used to determine what emotional-, social- and cognitive modalities constitute resilient functioning as well as what content and activities could be used in the Resilience Enhancement Kit to effectively enhance the middle adolescent's resilience competencies. The qualitative paradigm in this research functions in unison with the quantitative paradigm.

6.3.2. Quantitative research

McMillan and Schumacher (1997:16-17) propose that the quantitative approach uses a deductive form of reasoning, which implies that a researcher uses existing theoretical knowledge as a conceptual frame of reference and collects empirical information from a sample of the larger population to draw conclusions and generalizations. The aim therefore of the quantitative approach is to measure the social world objectively through scientific explanation. In this research, the

quantitative approach will be utilized when the middle adolescents' level of resilience modalities incorporating the emotional-, social- and cognitive competencies will be appraised through the development and administration of the Resiliency Scale (Likert-type questionnaire). Through the literature review, it became apparent that there is a need for a questionnaire to appraise the modalities necessary for resilient functioning that can be used for the South African context. The available questionnaires that measure resilience is sparse and the ones available are limited in their scope and normed for the American population. A study of the relevant literature regarding resilience modalities enabled the identification of the competencies necessary for resilient functioning. This was used as a framework to structure the questions so that the middle adolescent could indicate their level of resilience.

6.4. The sample

The education system in South Africa is divided between public-, private- and home schooling. The schools can further be divided into categories referred to as inner city schools, rural schools and farm schools. There are also schools for learners with special educational needs (e.g. the blind, deaf, autistic and disabled). In South Africa, the learners experience a transition from primary school to high school at the age of 13-14 years, which is reflective of the middle adolescent phase. This transitional between schools is characterised by a stressful time of adapting to a new environment for the middle adolescents. The site selection criterion is dependent on the aim of the research. A private inner-city school in Johannesburg was chosen for this research. The school is chosen for its diverse multi-cultural composition even before 1994 when South Africa obtained a democracy where all cultures received equal rights especially related to receiving the same level of education and where all the cultures could attend the same schools. The heterogeneous school has been in existence for 40 years and has a full matric pass-rate despite adversities experienced by the middle

adolescents living in a city. The school follows the curriculum structured by the Department of Education.

This research makes use of a purposeful sampling as the dominant strategy in this qualitative research because it seeks information rich cases, which can be studied in depth. *"Heterogeneous samples or maximum variation sampling is a deliberate strategy to include phenomena which vary widely from each other. The aim is to identify central themes which cut across the variety of cases or people"* (Ritchie, Lewis & Elam, 2003:79). A heterogeneous and multi-cultural sample was chosen that could be representative of the South African middle adolescent population living in the inner-city school context. Due to the smaller numbers of middle adolescents in a private school the whole grade 8 group (n=30) was selected and could therefore not only be considered a purposeful sampling but also a comprehensive sampling due to the manageability of the size and heterogeneous composition of the participants.

6.4.1. The target population

The target population for this research will be made up of 14-year-old middle adolescents in an inner-city private school located in Johannesburg. The total number of middle adolescents (n=30) in grade 8 will be assessed for their levels of resilience. Due to the varying continuum of resilient functioning in the different modalities, all the middle adolescents were included to either develop or enhance their resilience modalities. There were sixteen boys and nine girls who participated in the Resiliency Scale and the Resilience Enhancement Kit. Unfortunately, four boys and one girl could not complete the post-test phase due to absenteeism and therefore only 25 participants completed the two test phases and the Resilience Enhancement Kit. The culture composition of the participants in this research was nine Black middle adolescents (6 boys and 3 girls), nine White middle adolescents (6 boys and 3 girls), four Coloured middle adolescents (1 boy and 3 girls) and three Indian boys. The Resilience Enhancement Kit will be administered to these learners to enhance and develop their resilience

modalities. The Resilience Enhancement Kit as well as the appraisal instrument has its foundations in the literature research as discussed in chapter five.

6.5. Selection of data collecting.

The selection of data collecting strategies comprise of qualitative research techniques such as an open-ended question, observations and the Resilience Enhancement Kit as well as a combination of qualitative and quantitative technique namely the Resiliency Scale (Likert-type questionnaire).

6.5.1. Open-ended question.

The open-ended question is a technique in which a question is posed to obtain a participant's narration. The aim of the qualitative open-ended question was to supplement the Resiliency Scale regarding what the middle adolescent feel contributed to their level of resilience (the question is given in chapter one). Due to the large number of participants as well as making the participants feel that the information given is confidential, they were asked to give their answers in written form. This technique was also utilized to establish a relationship of trust between the researcher and the participants to ensure their involvement in the Resilience Enhancement Kit. The answers from the open-ended question conducted with the middle adolescents was used to add determinants of resilience to the Resiliency Scale and gain insight into how middle adolescents bounce back against adversity.

6.5.2. Observations

Observations are used to provide a holistic perspective of the middle adolescent within the school context. *"Participant observation is when the researcher joins the constituents' research population or is organisational in a community setting to record actions, interactions or events that occur. This method is integral to anthropological and ethnographic research because it provides direct experiential*

and observational access to the insider's world of meaning" (Ritchie, 2003:35). The researcher administers the Resilience Enhancement Kit with the class teacher, and is therefore in a favourable situation to observe the middle adolescents' interaction with the presented material. Observing the middle adolescents provides the opportunity for the researcher to ascertain how they respond emotionally and behaviourally to the Resilience Enhancement Kit and whether the activities are successful or need to be altered to make the Resilience Enhancement Kit more effective.

6.5.3. Resilience Enhancement Kit

The Resilience Enhancement Kit is structured according to a didactic lesson that makes it accessible and practical for teachers and psychologists to ascertain the middle adolescents' prior knowledge, provide guided exposition of new knowledge through self-directed models (mind maps) and facilitate the application of acquired competencies to real life situations. The content for each session (as described in chapter 5) of the Resilience Enhancement Kit is divided according to the definition of a resilient middle adolescent with the aim to identify, manage and utilize apposite personal modalities (capacities; competencies and strengths) and assets within their contexts. Various methods of instruction and activities are utilized to accommodate the learner's multiple intelligences and strengths for example role-playing, debating, questionnaires, dramatization, character studies, self-reflection, interviews, group work, music and game play.

There are 12 sessions and each session is approximately an hour long. Two sessions are utilized for the pre-test and post-test phases where the middle adolescents have to complete the Resiliency Scale. A session is used to familiarize the middle adolescents with the concepts as well as establishing the regulations for participating in the Resilience Enhancement Kit. The sessions are further divided into **emotional competencies** that comprise of identification, management and expression of emotions, empathy and ego-resiliency. The

social competencies comprise of positive relationships (establishing friendships and working in groups) and a sense of self. The **cognitive competencies** consist of meta-cognition (problem solving, decision making and reframing of thoughts) as well as future expectations and goals. A session is utilized to consolidate the competencies gained throughout the sessions and is presented in the form of a board game. The design of the Resilience Enhancement Kit is discussed in detail in chapter 5. The researcher is actively involved in administering the activities and observing the middle adolescents during the Resilience Enhancement Kit sessions and during the test phases of the Resiliency Scale.

6.5.4. Resiliency Scale

Hitchcock and Porter (2003:1) are of opinion that a Likert scaling is a method of assigning numbers to a statement or assertion in order to measure a middle adolescent's attitudes or beliefs. Scaling are the Participant's ratings (e.g. 1-4) that reflect the strength of the attitude or belief for any particular item. The ratings for different questions can be added together in order to obtain a summated indicator of the middle adolescents' standing regarding the attitude or belief being measured. The following limitations can be applicable to the Likert scale and the researcher must be vigilant to avoid or prevent these problems by providing a thorough explanation of what is required from the participants. The limitations could include:

- ❖ Answers that might not reflect what the middle adolescent truly thinks and feels because participants can answer according to how they anticipate they should react. The researcher was aware whilst interpreting the results that the middle adolescents' answers could have been influenced by expectations and a wish to please.
- ❖ Some participants might also answer in a response pattern without considering the questions carefully. Therefore, the scales should be developed (for example 1-4) to limit the choice of a mid-section.

The Resilience Scale is designed with a four-point scale in order to prevent the middle adolescents from choosing and rating a mid-section.

- ❖ Care must be taken to avoid ambiguous questions. This concern was addressed by asking the two teachers and five adolescents to look critically at the questionnaire. Furthermore, a psychologist familiar with the resilience also scrutinized the Resiliency Scale.

Two Resiliency Scales were developed to measure resilience modalities, one for the middle adolescent and one that serve as a teacher's or psychologist's guide regarding their perception of the middle adolescents' resilient functioning. The aim of the Resiliency Scale is to determine in the pre-test phase what the middle adolescents regard as their level of resilience as well as the teacher's perception of their learners. Furthermore, it is used in the post-test phase to evaluate what effect the Resilience Enhancement Kit had on the perception of the middle adolescent regarding their level of resilience. The results from the Resiliency Scale can also inform on the competencies in the various modalities of resilience that require more attention to develop and enhance. The Resiliency Scale is divided into emotional-, social and cognitive competence, which forms part of the resilience modalities. The **emotional competencies** are subdivided into questions related to empathy, identification, management and communication of emotions as well as ego-control. The **social competencies** are subdivided into questions related to healthy positive relationships, autonomy and sense of self (self-identity; self-efficacy; self-perception). The **cognitive competencies** are subdivided into questions related to meta-cognition (problem solving, decision-making and planning) and future expectations (purpose, goals and aspirations).

Great care was taken to avoid overlapping questions in the questionnaire and to ensure that the degree of language difficulty is appropriate for the learners by asking five learners from grades 9 to 10 (3 boys and 2 girls) to critically look at the questionnaire. Two teachers (other than the 5 participating teachers) that teach grade 8 learners were asked to critically look at the teacher's Resiliency

scale and make any suggestions for modification. These five learners and the two teachers were asked semi-structured questions regarding the lucidity of the format of the scale; the difficulty of language and the time it took to complete the scale. The two teachers did not feel that there were any changes necessary. Feedback from the five learners resulted in simplifying the language of three of the sentences and adding a question regarding being able to create physical safety in an adverse situation. The attempt to manipulate answers based on the interpretation table by one of the grade 9 learners resulted in omitting it during the testing phases with the grade 8 group. The correlating questions (for example 2 and 39; 27 and 60; 29 and 64) and phrasing of questions (stating questions in the negative for example question 21; 26; 40) in the Resiliency scale also served as an internal reliability and validity. The analysis of the observations and middle adolescents' views on what makes them resilient will be discussed in the interpretation and discussion of results.

6.6. Data analysis

The methods of data generation as discussed above as well as the analysis thereof must be flexible, adaptable and sensitive to the social contexts of the participants. *"A basic interpretive research is used when the goal of the researcher is to understand how participants make meaning of a situation or a phenomenon. The researcher serves as a filter for the meaning, using inductive strategies with a descriptive outcome"* (Eric Clearinghouse, 2004:4). The qualitative data in this research comes from field notes (observations) made during the administration of the Resilience Enhancement Kit, which are already filtered according to the focus of the research and the open-ended question to participants regarding what they perceive as having an influence on their resilient functioning. Qualitative data analysis is primarily an inductive process of organizing the data. This form of data analysis requires labelling, sorting and synthesising of the data obtained to be able to interpret the themes that are presented in the data within the framework of the middle adolescents' developmental phase. *"Inductive analysis means that categories and patterns*

emerge from the data rather than being imposed on data prior to data collection" (McMillan, 1997:501).

An overview of the data in this research was first gained to familiarize with the content that related to the written responses of the open-ended question and the observations made whilst keeping the aim of the research in mind (appraisal and enhancement of the emotional-, social- and cognitive resilience modalities in middle adolescents). The data was attended to reflectively to identify main and sub themes based on the middle adolescents' behaviour, attitudes and views regarding their resilient functioning. The data in this research was then segmented and ordered into categories of meaning in a column form and then compared for similarities and distinctions to discover patterns. *"In qualitative analysis the analyst tries to build an explanation based on the way in which different meanings and understandings within a situation come together to influence the outcome. It is our view that qualitative explanations attempt to say why patterns and outcomes in the data have occurred"* (Ritchie, Spencer & O'Conner, 2003:219). The synthesis of themes or concepts is conveyed in written form in this research. The meaning middle adolescents attribute to their understanding and application of their resilience modalities should be viewed within the framework of their developmental phase. The data gathering and analysis of this research was guided by the ethical considerations discussed hereafter.

6.7. Ethical considerations

The ethical guidelines serve as standards to which a researcher must adhere to in order to ensure that his or her research is of high standards. The research conducted will be measured according to reliability, validity, suitability, objectivity and ethical acceptability.

6.7.1. The researcher

The ethical responsibility towards the participants in the research is of vital importance for the credibility of the research findings. The researcher must therefore continuously apply self-reflective strategies by making sure that the aim of the sessions in the Resilience Enhancement Kit were adhered to, analysing the responses noted and behaviour observed to see whether any changes need to be made in the Resilience Enhancement Kit. The researcher should strive to uphold objectivity and as far as possible be value-free.

6.7.2. Ethical acceptability regarding participants

The participants will be treated with respect, acceptance and understanding, and will in no way be harmed by participating in this research. *"As in any research, sample member's informed consent to participate must be obtained. This means providing them with information about the purpose of the research, who the research team is, how the data will be used, and what participation will require of them"* (Lewis, 2003:66). The Participant's prior permission is obtained before the Resilience Enhancement Kit was administered and anonymity and confidentiality was made clear to participants. This includes consent from the middle adolescents themselves as well as their parents (see annexure A). The informed consent implies that information regarding the aim of the research; the procedures, which will be followed during the research as well as the responsibilities of the participants is highlighted. The consent is documented verbally and in writing. The confidentiality and anonymity of the information gathered will be upheld. After each session is completed, the participant's questions will be answered and misconceptions cleared. The research instruments should adhere to the ethical standards for research.

6.7.3. Ethical features regarding research instruments

Research procedures and instruments used in this research will adhere to ethical features, which contributes to the credibility of the research. This implies that the research instruments (Resiliency Scale and Resilience Enhancement Kit) must be reliable, valid, suitable, objective as well as feasible.

6.7.3.1. Reliability

"Reliability is generally understood to concern the replicability of research findings and whether or not they would be repeated if another research, using the same or similar methods was undertaken" (Lewis & Ritchie, 2003:270). The inter-rater reliability of this research will be achieved by means of triangulation. A registered psychologist familiar with the concept scrutinized the Resiliency Scales as well as the Resilience Enhancement Kit. The Resiliency Scales are also administered at the beginning of the sessions (pre-test phase) as well as at the end of the final session (post test phase) to:

- a) ascertain if there are any correlation in the answers (scale 1-4) given by the middle adolescent in during the pre-test phase and post-test phase;
- b) ascertain if there was any change in the middle adolescents' perception regarding their competencies that foster resilience after participating in the Resilience Enhancement Kit.

Ritchie (2003:40) proposes that qualitative and quantitative research methods can be combined as part of a preceding statistical enquiry especially when *"a battery of items is to be compiled to measure attitudes or behaviours"* or as part of triangulation to *"check the integrity of or extend inferences drawn from the data."* Part of this research's idiographic approach implies that many sources of information is used in this research which includes an open-ended question, behavioural observations and evaluative questionnaires which adds to the validity and reliability of the research results.

6.7.3.2. Validity

"Validity refers to the correctness or precision of a research reading. It has two distinct dimensions, the first known as internal validity, is concerned with whether you are investigating what you claim to be investigating and the second, termed external validity is concerned with the extent to which the abstract constructs or postulates generated, refined or tested are applicable to other groups within the population or to other contexts or settings" (Lewis et al., 2003:273). There are strategies to enhance validity of research and the following strategies as described by McMillan and Schumacher (1997:405) applies to this research:

- ❖ Verbatim accounts of the participants through the open-ended question regarding what influences their level of resilience; Resiliency Scale (Likert-type questionnaire) and open-ended evaluation questionnaire (presented in chapter 5) at the end of each session to give the middle adolescents the opportunity to reflect on what they have learnt and how they think they can apply it to their everyday life ;
- ❖ checking informally with participants to make sure the meanings of what they said or did during the activities which was observed was understood correctly by the researcher;
- ❖ agreement of data findings from a psychologist familiar with the research topic;
- ❖ information obtained through observation and field notes. "*Low-inference descriptors are concrete, precise descriptions from field notes and interview elaborations. The descriptions are almost literal and any important terms are those used and understood by the participants*" (McMillan et al., 1997:46).

6.7.3.3. Suitability

The suitability of the research implies that the instruments used must be suitable to ascertain and enhance resilience modalities. As discussed earlier, the compilation of the components included in the Resiliency Scales as well as the

Resilience Enhancement Kit was obtained through the information gained through the literature review. The format of the sessions of the Resilience Enhancement Kit is structured so that the teacher can easily incorporate it into the curriculum to be used in the school context with the middle adolescents.

6.7.3.4. Objectivity

"Objectivity is both a procedure and a characteristic. Objectivity means unbiased, open-minded, and not subjective. As a procedure, objectivity refers to data collection and analysis procedures from which only one meaning or interpretation can be made" (McMillan et al., 1997:10). In this research, objectivity will be upheld by focusing on the participant's direct thoughts and feelings by means of the open-ended question that is written down, Resiliency Scale and discussions in the sessions to minimize faulty interpretation of the information. *"Objectivity in qualitative research refers to the dependability and confirmability of the researcher's interactive style, data recording, data analysis and interpretation of participant meanings"* (McMillan, 1997:408). To ensure the objectivity of the research a clear statement of the research objectives and a description of the approaches and methods used in conducting the research are given. The data has also been subjected to review by a registered psychologist familiar with resilience. The research states what the process and instruments (Resiliency scale and Resilience Enhancement Kit) were of enhancing and appraising resilience modalities so that the research could be reproduced by other researchers in further studies.

6.7.3.5. Feasibility

McMillan and Schumacher (1997:545) describe feasibility as a standard to ensure that an evaluation or process is realistic and consist of practical procedures that are viable and cost effective. The Resilience Enhancement Kit is developed to be feasible for teachers and psychologists to use with groups in the school context. The activities in the Resilience Enhancement Kit are easily

reproducible and utilize the assets available in the environment so that communities with a lower economic status can still utilize it effectively.

6.8. EMPIRICAL INVESTIGATION AND CONCLUSIONS

6.8.1. Interpretation and discussion of the research results

The research conducted with the 14-year old middle adolescents in a Johannesburg inner-city school will be presented as follows:

- ❖ A summary of the sessions is presented that include the middle adolescents' evaluations of the Resilience Enhancement Kit.
- ❖ An integrated table and discussion on the comparison regarding the middle adolescent items of the pre- and post-test phases of each learner.
- ❖ Graphs (girls and boys) illustrating the results from the pre- and post test results and discussion thereof obtained from the Resiliency Scale for learners.
- ❖ Graphs (girls and boys) illustrating the difference in the resilience modalities from the pre- and post test phases.
- ❖ A graph illustrating the results from the teacher's results obtained from the Resiliency Scale for teachers compared to that of the learners' views on their level of resilience as well as a discussion thereof.

6.8.2. Qualitative summary of the Resilience Enhancement Kit sessions

The Resilience Enhancement Kit was administered during a Life Orientation period and the 30 middle adolescents were divided into three classes of ten learners each. The teacher was also present during the administration of the sessions and participated as a facilitator during the activities. The middle adolescents appeared eager to participate in the sessions and they reported that they were looking forward to the lessons because "it was different from what they were used to".

6.8.2.1. Session 1: Orientation

The aim of this session was to introduce the middle adolescents to the concept of resilience through the use of a picture depicting the saying "if life hands you lemons make lemonade" as well as a visual depiction of resilience. The facilitators asked the participants to recall information from their own life or think of someone they know who seemed to cope while the situation he or she was in seemed dire. The participants was eager to share stories that related to their life world for example how friends they had who abused drugs were helped to overcome it as well as stories about how people who lost loved ones due to sickness or death coped. Due to the pressures placed on middle adolescents through peer pressure to use drugs that are easily accessible and the grim reality of illnesses like Aids or the trauma of death after hijacking or robbery is a reality the middle adolescent has to live with in an inner city environment. The middle adolescents' frame of reference with regard to the adversities in the inner city might be slightly different to that of a middle adolescent living in a different environment and could be investigated in future studies.

The participants were asked to participate in creating some rules and regulations that they needed to adhere to during the contact sessions. By involving the middle adolescent in defining the boundaries it ensured that they experienced acknowledgement and validation especially because middle adolescents often complain that adults are too prescriptive and seldom listen to what they have to say. The activity where the middle adolescents had to choose and paste pictures of events in their lives or the lives of someone they knew that depicted adversity proved difficult for some adolescents because they were unsure of what picture would represent the issue they were thinking of and therefore they asked for assistance. This difficulty with representation of a concept could be contributed to the fact that they have not developed the cognitive maturity (Piaget's formal operational phase) to amalgamate the concrete and the abstract.

The role of the researcher was to facilitate understanding of the concept, which the middle adolescents successfully grasped. The evaluation questionnaires the

learners had to complete after each session was divided into what they learned from the session, how they could apply the competencies as well as what they enjoyed and would change to improve the Resilience Enhancement Kit.

6.8.2.2. Session 2: Emotional competence: identification, management and communication of emotions

The aim of this session was to empower the middle adolescent to be able to identify, manage and communicate (verbal and non-verbal manner) emotions. In the first activity the facilitator (teacher and psychologist) initiated a group discussion and demonstrated the differences in verbal and non-verbal communication (eye contact, tone, personal space) which can also be culture specific and the middle adolescents were also asked to dramatize a scene where they demonstrate the skills they have learnt. One of the areas under discussion was the differences in the way cultures communicate on a non-verbal level and it became apparent that most of the middle adolescents were unfamiliar with this aspect. The influence of globalization and the way the media portrays social and cultural behaviour seems to have affected the South African middle adolescent. It was observed that the way the American teenager is portrayed in the media is the way that some of the middle adolescents dressed for their acting parts during role play activities, behavioural movements (such as hand signals) as well as the language (slang) they spoke. The imitation of American role models in the media could also affect the way that the South African middle adolescents deal with adversities and stressors in their lives (for example gangster-like aggressive behaviour or apathy towards others if they do not conform to the group norms). Identifying the intensity and different types of emotions were achieved by means of colour-coded cards with faces that reflected emotions and emotional labels. The middle adolescents had to match up the words with the faces and give examples how the different intensities will be exhibited in daily functioning. The middle adolescents found the more complex blends of emotions difficult to identify and in the questionnaire regarding their emotions they chose the most

familiar emotions to describe their feelings. This could be due to lack of teaching the middle adolescents at school and home the emotional competencies that relate to identifying emotions. The mind map on managing emotions proved to be successful and the middle adolescents were able to apply the skills although it was felt that prolonged reinforcement is necessary to consolidate this competency.

6.8.2.3. Session 3: Emotional competence: empathy

The aim of this session was to identify and communicate empathy towards others. The middle adolescents were asked to identify the theme in a song that was played for them, which they could successfully do although they described it as "caring for others" or "we all have the same feelings". The middle adolescents were asked to imitate the mirror image of their partner (facial expression, behaviour) and label the emotion that was expressed to empower them to attend to non-verbal expressions and be sensitive to what others are experiencing. The middle adolescents enjoyed this activity although guidance was necessary from the facilitator to help them with identifying the emotion, as the emotion was not always expressed in a clear manner. It was easy for the middle adolescents to identify three people in their life who they could rely on to be a support in difficult situations which consisted first of friends and then siblings and parents that reflected the importance of the peer group in this developmental phase over the influence of the family. The middle adolescents had to refer to the mind map regarding empathy to remind them of the principles on how to empathize whilst applying it to a peer sharing an emotional story. The individuals the middle adolescents identified as role models in society that show empathy towards others were predominantly linked to sport players or movie actors that do charity work and is reflective of the role society has on the middle adolescent's perceptions.

6.8.2.4. Session 4: Emotional competence: ego-resiliency

The aim of this session was to guide middle adolescents to enhance and manage their ego-resiliency. At the beginning of the sessions, the middle adolescents were told that they would receive a chocolate cake at the last session for actively participating. This action was taken to teach the middle adolescents that to obtain a worthwhile goal or reward it is necessary to delay immediate gratification and focus on the current task. This proved to be successful because at the last session the middle adolescents were quick to remind the facilitator that they worked hard and deserved their chocolate cake. The activity that related to their wishes and wants, the reasons for them and how they would achieve them indicated that the answers given by the middle adolescents were idealistic wishes and wants and they could not always motivate how they would achieve them. This is characteristic of the middle adolescents' developmental phase where they offer idealistic solutions for complex problems that can lead to disappointment when their solutions do not rectify the stressors and adversities they experience. Teaching ego-resiliency skills and asking the middle adolescents to apply them in a group game proved successful, especially for the impulsive learners because they were forced to be patient and make realistic decisions. The facilitator role in this activity was that of monitor to ensure that the interactions between the learners were geared towards the aim of this session.

Replies from the evaluation forms that could be in group form or on an individual level were completed after administering the various competencies in the Resilience Enhancement Kit. The middle adolescents indicated that they learned the following related to their emotional competence:

- ❖ Dealing with people in the correct way;
- ❖ learning about feelings and emotions and how to control and use them;
- ❖ having compassion for others and understanding what other people go through;

- ❖ taking responsibility for your actions.

6.8.2.5. Session 5: Social competence: positive relationships-friendship

The aim of this session was to facilitate the identification and management of making and keeping friendships individually and within a group. It was observed that the Black middle adolescents especially enjoyed the activities such as role-play, dramatization and music. This could be due to cultural differences because music, dance and rhythm are an essential part of celebrations and daily living in the Black culture as a way of expressing themselves. The middle adolescents were very responsive in identifying characteristics that they feel are important to have as a friend. The discussion between the facilitator and the middle adolescents revealed that although they considered the positive characteristics (honesty, trustworthiness, dependability) of a friend as important, inclusion into the peer group depends on conforming to the group norms (attitude and behaviour) and if that does not happen the middle adolescent can risk being ostracized. The activity where the middle adolescents had to interview their classmates regarding the sharing information they did not know about them previously, was successful and the middle adolescents' thoughts were guided by questions to help them focus. The middle adolescents reported that they "learned a lot from each other". It was observed that this activity had a positive effect on the middle adolescents who tend to be loners in the classroom because they could share information with middle adolescents who could be viewed as leaders in their peer groups in an effort to change their perception of them. The middle adolescents' wish to be part of and accepted by the peer group was a significant theme in this session.

6.8.2.6. Session 6: Social competence: positive relationships-getting along with others

The aim of this session was to identify, manage and enhance relationships when working in a group. The group activities revealed that there were middle

adolescents who naturally took the lead and others sat quietly and allowed them to make the decisions for them. Even with rotating the group leader to give all the learners a chance to lead, these quiet middle adolescents found it difficult to contribute that might be due to their temperaments. During the early stages of the sessions, it was necessary to talk to the learners about including everyone in the groups because there were some middle adolescents who the group members did not want as part of the group. This behaviour improved as the sessions progressed because the activities are structured to make the middle adolescents aware of the positive characteristics of their peers and as a result they are viewed in a different light other than just outward appearance and conformity to group behaviour which are of importance in this developmental phase. It was observed that the middle adolescents took a long time to complete written tasks and required reinforcement to think of ways how people in the school context work together. This might be contributed to the fact that the middle adolescent phase is characterised by a focus on the self and at times disregarding the people around them if they are not directly involved with them. The success of the activity to apply the skills to work effectively in a group depended on the group's composition (learners with domineering temperaments). The groups consisting of middle adolescents with a domineering temperament tended to experience more conflict than the others did. A small percentage of the middle adolescents would have preferred to work alone (autonomy).

6.8.2.7. Session 7: Social competence: sense of self

The aim of this session was to identify, manage and enhance personal aspects such as self-identity, self-efficacy and self-perception. The middle adolescents enjoyed using their creativity to develop a character that represented them, especially because it was linked to recreational activities, which they enjoy like computer games. It became apparent in this activity that the middle adolescents were unsure about their personal attributes and requested assistance from the

facilitator to function as a sounding board for their ideas and as a motivator. It was also easier for them to tell someone else how they were like instead of reflecting on themselves. Their lack in self-knowledge could be understood as part of developing their own identity and role in life which is part of their developmental phase. The middle adolescents were successful in utilizing their management skills to apply it to the real life scenario and they debated the ways in which the dilemma in the situation could be approached in different ways, which is a reflection of their increased reasoning abilities during this phase.

Replies from the evaluation forms, that could be in group form or on an individual level were completed after administering the various competencies in the Resilience Enhancement Kit. The middle adolescents indicated that they learned the following related to their social competence:

- ❖ Respecting themselves and others;
- ❖ being aware of the way they speak and act towards others;
- ❖ creating friendships;
- ❖ accepting yourself for who you are;
- ❖ how to communicate with people.

6.8.2.8. Session 8: Cognitive competence: meta-cognition

The aim of this session was to identify, manage, enhance and utilize their meta-cognitive competencies consisting of problem solving, decision making and reframing of thoughts. The activity that required the middle adolescents to choose between two envelopes and then complete the task that was required of them proved to be successful. The middle adolescents shared experiences of when they or someone they knew got into trouble and the creative ways in which they wanted to solve the problems even if they made the wrong choices. The facilitator guided the questions posed to them regarding the alternative results based on approaching the problem or situation differently. The spontaneous

sharing of experiences resulted in incidental learning that the Resilience Enhancement Kit aims to foster as well. The activity of solving a mystery caused excitement between the groups to see who could solve the mystery first. This activity was developed to guide middle adolescents regarding their way of solving problems and making decisions through guided questions regarding the process they followed with the mystery activity. The middle adolescents were able to utilize the skills learnt from the meta-cognition mind map and apply them to identify problems within the school as well as solving these problems.

However, the problems identified were limited and very concrete and the facilitator needed to encourage the learners to think more extensively. This difficulty experienced by the middle adolescents' correlates with the views discussed earlier in this research that the middle adolescents might not be on the formal operational stage of their development and still have difficulty with solving problems and making decisions with the future goals in mind.

6.8.2.9. Session 9: Cognitive competence: future expectations and goals

The aim of this session was to identify, manage and communicate future expectations and goals. It was observed that the future careers the middle adolescents wrote down in their first activity indicated that they have not seriously considered their future. The activity related to creating playing cards that reflected how their future would look like after a few years proved to be difficult for the middle adolescents because they tend to live for the here and now and not consider long-term plans. It became apparent that they needed guidance from the facilitator in forming a measurable plan of action for the school's fun day. The group dynamic indicated that there were middle adolescents who were enthusiastic about the project while there were group members who procrastinated in contributing their share in the planning of the event.

Replies from the evaluation forms, that could be in group form or on an individual level were completed after administering the various competencies in the Resilience Enhancement Kit. The middle adolescents indicated that they learned the following related to their cognitive competence:

- ❖ Knowing that you are never too young to start thinking about your future;
- ❖ people should be realistic in what they want;
- ❖ to start thinking about your problems differently.

6.8.2.10. Session 10: Consolidating competencies: board game

The aim of this session was to give the middle adolescents the opportunity to apply the competencies learnt in the sessions to real-life situations. The session where the middle adolescents had to play the board game and exhibit their competencies they obtained during the sessions was very successful. The period they played the game was before a lunch break and the learners enjoyed the session so much that they did not want to leave when the bell rang for them to have their break but wished to continue playing. The learners appeared to be very supportive of each other and when one of the middle adolescents did not answer according to the competencies he or she had gained, the rest of the group reminded the middle adolescent of the appropriate way to answer the question or situation card based on the management skills represented on the mind maps. The use of colour and mind maps in geometrical forms to convey the skills necessary to manage the various resiliency competencies proved to be successful although the learners needed reinforcement to consolidate the competencies.

Replies from the evaluation forms, that could be in group form or on an individual level were completed after administering the various competencies in the Resilience Enhancement Kit also revealed:

a) The activities they enjoyed in the sessions were:

- ❖ Playing games;
- ❖ acting out situations;
- ❖ the fun and relaxing atmosphere;
- ❖ eating cake.

The middle adolescent could have identified these aspects of the Resilience Enhancement Kit because learners are open to learning if the environment is emotionally and socially accessible and the content enjoyable.

b) The only suggestions the middle adolescents made to improve the Resilience Enhancement Kit included playing more games because they can have the opportunity to be actively involved in learning on an informal social level, which makes them open to incorporate new competencies.

c) The aspects that the middle adolescents did not enjoy was:

- ❖ Arguing in the groups;
- ❖ some of the learners who did not behave themselves;
- ❖ talking about personal emotions.

Considering the middle adolescents' developmental phase the answers given reflect their characteristics as discussed in the literature review regarding being impulsive, not being able to manage their emotions and competing in the peer group for social acceptance and conforming to social norms of the group.

6.8.3. Analysis of the Resilience Enhancement Kit as measured by the Resiliency Scale.

The Resiliency Scale for learners was administered to gain insight into how middle adolescents view their level of resilience. The items of the pre-and post

test (Resiliency Scale for learners) were compared to ascertain if the Resilience Enhancement Kit altered the competencies found in the middle adolescents' resilience modalities, which also informed on the reliability of the assessment instrument (Resiliency Scale). The Resiliency Scale for learners (pre- and post test phase) was administered after the 10 sessions (one session a week for 3 groups of ten learners) was completed. The analysis of the participant's answers were categorized according to gender with the aim of ascertaining whether there are differences in the way females and males view their level of resilience.

Furthermore, the teachers who were randomly chosen were asked to identify middle adolescents from the grade 8 group and to complete the Teacher Scale with regard to those learners who they felt displayed high and low levels of resilience. The teachers were not able to discuss the choice of learners amongst themselves. The scores of the similar learners chosen by the teachers were compared to those learner's personal scores in the pre-test phase. The aim of this comparison is to ascertain if there is any differences in the way middle adolescents view their level of resilience to that of how teachers, as significant role players in the school context, view the middle adolescents' level of resilience. Unfortunately, the results of five of the learners participating in the research could not be incorporated fully in the analysis of data due to their prolonged absenteeism during the period the post-test was administered.

The Resiliency Scale for learners is based on a four-point scale. The middle adolescent is required to evaluate each statement according to this scale:

1	No / Never (Strongly disagree)
2	Seldom / Only occasionally (Disagree)
3	Usually / Good deal of the time (Agree)
4	Entirely/ At every opportunity (Strongly agree)

The comparison of the items of the pre-and post test (Resiliency Scale) are indicated as follows:

- a cross (+) sign if the Participant showed an increase in the way he or she views that variable of their resilient functioning;
- a minus (-) sign if the Participant showed a decrease in his or her view;
- a black equal (=) sign if the Participant showed no change in his or her answers from the previous assessment but falls within the positive side of the scale;
- a red equal sign (=) if the Participant showed no change in his or her answers but it falls within the negative side of the scale;
- The comparison of the items was divided according to the Participant's gender.

The questions found in the Resiliency Scale can be subdivided into the following:

Emotional competencies:

Question 1-30 encompass the emotional resiliency and can be subdivided:

- empathy (1-10),
- emotions (11-20) and
- ego-control (21-30).

Social competencies:

Question 31-55 encompass the social resiliency and can be subdivided:

- relationships (31-40) and
- sense of self (41-55).

Cognitive competencies:

Questions 56-75 pertain to cognitive resiliency and can be subdivided:

- meta-cognition (56-65) and
- future expectations and goals (66-75).

6.8.3.1. Female participants' results

Participants: Girls (A-I) Table 3

Resiliency Questions

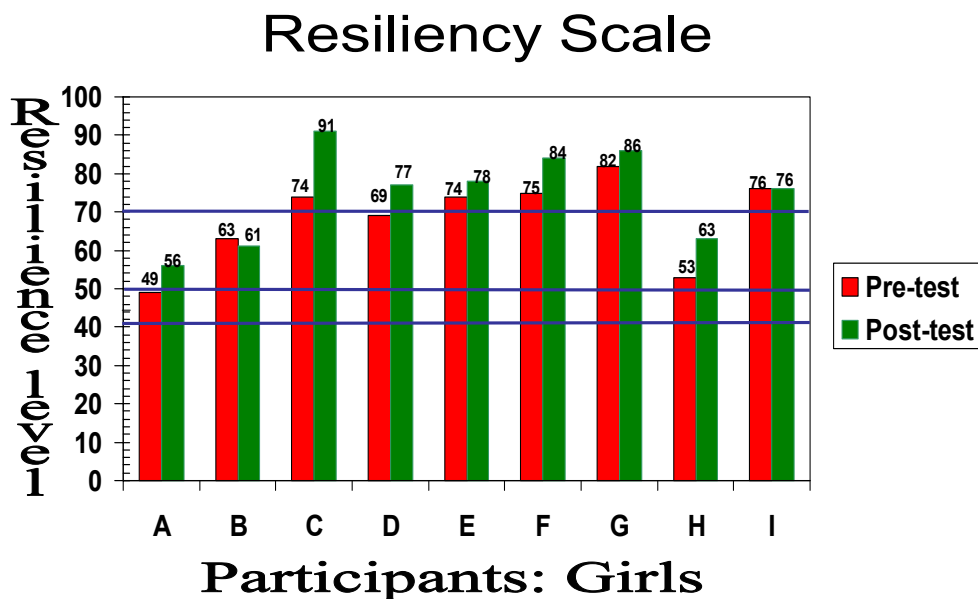
?	A	B	C	D	E	F	G	H	I
1.	+	-	=	+	+	+	=	+	=
2.	+	-	-	=	-	+	-	+	=
3.	=	-	-	+	+	+	+	-	-
4.	+	-	+	+	-	+	=	+	=
5.	+	=	+	+	=	+	=	+	-
6.	-	-	+	=	+	+	+	=	=
7.	+	=	+	+	=	+	+	=	-
8.	+	+	=	+	+	=	+	+	=
9.	-	+	-	=	=	+	=	+	=
10.	+	-	+	+	=	=	=	+	=
11.	+	+	=	+	=	+	+	+	+
12.	-	=	-	=	=	=	-	=	=
13.	-	-	+	+	=	+	+	=	=
14.	+	=	=	-	=	+	+	=	-
15.	=	=	+	+	+	+	=	=	+
16.	+	=	+	+	+	=	+	+	=
17.	+	=	=	+	=	+	+	+	+
18.	-	+	=	+	=	=	=	+	-
19.	+	-	+	=	=	+	+	+	=
20.	+	-	=	=	+	+	=	+	+
21.	=	=	=	-	=	+	-	-	+
22.	+	+	=	=	=	+	=	=	-
23.	=	=	+	+	=	=	+	=	=
24.	+	=	+	+	+	+	-	=	-
25.	-	=	-	=	=	=	=	=	=
26.	-	=	=	+	-	=	-	+	+
27.	-	-	+	+	=	=	=	=	-
28.	-	-	+	+	=	+	=	+	=
29.	-	=	=	+	=	+	-	+	+
30.	-	+	+	+	=	+	-	+	=
31.	+	-	=	-	+	+	=	=	=
32.	-	-	=	=	+	+	+	=	=
33.	=	=	+	+	+	=	=	=	-
34.	+	=	=	+	=	=	=	=	=
35.	=	-	-	-	-	=	=	=	+
36.	+	+	=	=	=	=	=	+	=
37.	-	-	=	+	=	=	=	+	=
38.	=	-	+	=	=	+	-	+	=

39.	+	-	+	+	+	+	-	+	-
40.	+	+	=	=	=	+	-	+	=
41.	+	+	+	=	+	+	=	+	-
42.	-	=	=	+	+	=	=	+	=
43.	+	+	=	=	+	+	=	+	+
44.	=	+	+	=	=	+	=	+	+
45.	-	=	=	=	=	=	-	+	=
46.	+	+	-	=	=	=	=	+	=
47.	+	+	=	=	-	+	=	+	+
48.	-	=	+	=	-	=	=	+	=
49.	+	-	=	+	-	+	-	+	=
50.	+	+	-	+	=	=	-	=	=
51.	-	=	-	+	-	=	=	=	=
52.	+	+	=	+	-	+	-	=	=
53.	=	=	=	+	=	+	=	=	=
54.	+	=	-	-	=	=	-	=	=
55.	=	+	+	+	-	+	+	=	-
56.	=	+	+	=	=	=	=	=	=
57.	=	+	=	+	=	+	+	=	=
58.	+	=	+	-	=	=	=	=	+
59.	+	=	+	-	=	+	=	=	=
60.	+	=	+	+	=	=	=	-	-
61.	+	+	+	-	=	+	+	-	=
62.	=	+	+	=	=	+	=	=	=
63.	+	+	=	=	=	+	=	=	+
64.	+	+	=	=	=	+	-	=	=
65.	+	+	+	+	-	+	+	=	=
66.	+	+	+	=	+	+	=	=	+
67.	=	-	+	+	=	+	=	=	=
68.	+	-	+	+	=	-	=	=	=
69.	=	+	+	=	=	=	=	=	+
70.	-	+	=	=	=	+	+	=	+
71.	-	=	+	=	=	+	=	=	+
72.	+	+	+	=	=	+	+	=	+
73.	+	-	-	=	=	+	=	=	+
74.	+	-	+	-	=	+	=	=	=
75.	-	=	-	=	=	=	=	=	+

The interpretation table (y-axis of the graph) is outlined below and reflects the Department of Education’s guide for levels of achievement and was chosen because it is closely resembles the scales of the Resiliency scale of Shekill and it is developed to be used within the school context where assessments is guided by this level descriptors.

70-100	Very Resilient
50-69	Average in Resiliency
41-49	Needs assistance in some areas to increase Resiliency
0-40	At risk, intensive intervention necessary to build Resiliency

Graph 1:



The summarized score of the female participants illustrated by the graph indicates that seven of the nine participants had an increase in the way they perceive their level of resilience after administering the Resilience Enhancement Kit. Participants C, E, F, G and I all viewed themselves as very resilient in the pre-and post tests. Participant D viewed herself as having average resilience competencies in the pre-test but in the post test viewed herself as being very resilient. Although participants A and H showed an increase in resilient functioning, they still viewed themselves as having average resilience competencies. Participant A viewed herself as needing assistance with her resilient functioning in the pre-test but after the Resilience Enhancement Kit

sessions; she views her resilient functioning as average. Participant A showed a seven point increase in functioning; participant C a seventeen point increase; participant D an eight point increase; participants E and G a four point increase; participant F showed a nine point increase and participant H showed a ten point increase in the way they perceive their level of resilience. Participant B showed a two-point decrease compared to the score obtained from the pre-test while participant I showed no change in her perception of her resilient functioning. The items that constitute the different resilient modalities are compared (pre-and post-tests) the following became apparent:

❖ **Emotional Competence:**

Emotional competence encompasses empathy, emotions and ego-control.

➤ **Identifying, managing and communication of emotions**

Under the section identification, management and communication of emotions participants A, C, D, F, G, H and I experienced an increase in this area of resilient functioning. Participant E did not show a significant deviation from the answers given in the pre-test to that of the post-test. Participant B felt that she had not mastered the necessary competencies for this area of resilient functioning. The results indicate that three of the female participants appear to have difficulty with calming themselves when feeling anxious and being able to discuss their feelings with others.

➤ **Empathy**

Participants A, C, D, F, G and H showed an increase in empathy competencies after participating in the Resilience Enhancement Kit. Participants B and E felt that they had not mastered the necessary empathy competencies. Participant I's answers in the pre- and post-tests for empathy remained largely the same. The items that the participants still appear to have difficulty with is understanding the

difficulties other people go through and the way they think, being interested in what people have to say as well as trying to look at everybody's side of a disagreement before making decisions. It must be kept in mind that in the middle adolescents' developmental phase their focus is concentrated on themselves.

➤ **Ego-resiliency**

The section related to ego-resiliency was particularly difficult for the female participants. Participants C, D, F and I experienced an increase in their competencies. Participant E did not show any significant deviation in the pre- and post test scores. Participants B, G and H showed an equal number of items in which they experienced an increase in competencies to those in which they feel they need further development. Participant A experienced a decrease in her perception of her level of ego-resiliency. The items in which the participants showed a combined decrease in their perception of their level of ego-resiliency includes behaving impulsively to get what they want, adjusting and making decisions that are realistic, practical and reachable as well as manipulating people or situations to get what they want.

❖ **Social competence:**

Social competence can be subdivided into healthy positive relationships (for example working in groups, making friends) and a sense of self (self-identity, self-efficacy, self-perception and autonomy).

➤ **Healthy positive relationships**

Three of the female participants (A, D and F) experienced an increase in the competencies for healthy positive relationships, while another three participants (C, G and I) showed no change in their level of competence but their responses fell within the positive range of the scale. Participants E and H showed no significant deviation in their answers from the pre- and post test, however their

answers fell within the negative range of the scale. Participant B showed a slight decline in the way she perceived her level of resilient functioning related to competencies for positive relationships. The items on which the participants experienced a combined decline in their answers related to creating their own safety when faced with physical threats or when they are exposed to violent situations as well as having a teacher at school who really cares about them and listens to them. These concerns have an impact on how the school has to address the female learner's needs.

➤ **Sense of self**

The correlated items on the subdivision sense of self revealed that five of the nine participants (A, B, D, F and H) experienced an increase in this competency after the administration of the Resilience Enhancement Kit. Three of the participants' (C, G and I) pre- and post test answers were the same in favour of the positive side of the scale. Participant E's answers indicated a decrease in her level of resilient functioning for this competency, which implies that this is an area in need for further development. The items that needs for further development includes knowing their strengths and abilities, understanding their moods, gaining confidence to stand by their beliefs and fulfilling a role in society.

❖ **Cognitive competence:**

Cognitive competence includes meta-cognition (problem solving, decision making, locus of control) and future expectations (goals, purpose, aspirations).

➤ **Meta-cognition**

Five of the nine participants (A, B, C, D and F) viewed themselves as more meta-cognitively competent in their resilient functioning after participating in the Resilience Enhancement Kit. Participants E, G and I's majority of answers remained the same in the pre- and post test in favour of the positive side of the

scale. Although participant H's answers remained the same in the pre- and post tests, the answers all fell within the negative side of the scale. This would imply that her perceptions would negatively affect her scholastic functioning as well. The items of concern for some of the participants included following through with plans they have made as well as feeling able to handle many things at a time. Five participants (A, B, C, F and I) feel more competent with regard to their future expectations. Three of the participants (D, E and G) pre-test answers correlated with the post-test ones in favour of the positive side of the scale.

➤ **Future expectations and goals**

Participant H's answers for her future expectation competencies showed no deviation and fell within the negative side of the scale. The items in need of further development included celebrating successes before moving onto the next goal, being positive and hopeful about the future, self-motivation and a belief that if they work hard they can achieve what they put their minds to.

❖ **Summary of female participants' results**

In summary, the female participants appeared to experience an increase in their competencies related to resilient functioning after participating in the Resilience Enhancement Kit. Six participants (C, D, E, F, G and I) view themselves as very resilient and three participants (A, B and H) view themselves as average in resilient functioning after the post-test phase. As proposed in chapter one, resilience falls on a continuum and it became apparent that there are competencies, as outlined in the Resiliency Scale for learners and the Resilience Enhancement Kit, where the participants view themselves more competent than in others. The results indicate that the social competence (sense of self) is the primary area that the female participants experience a need for further development followed by the emotional- (ego-control) and then cognitive competence (future expectations). This findings correlate with the developmental phase of middle adolescents where they are still developing their own identity

(sense of self) and they often do not delay gratification because they are focused on the here and now, which also relates to future expectations.

6.8.3.2. Male participants' results

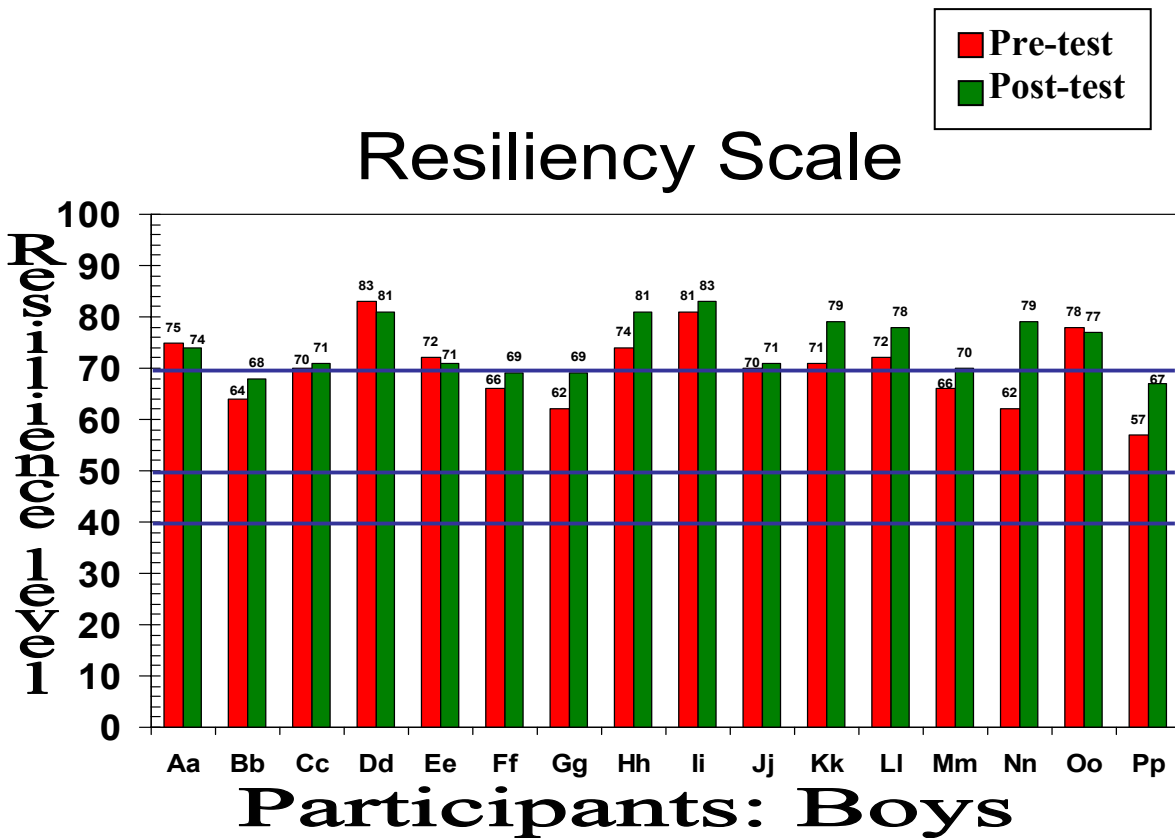
The comparative summary of the male participants' scores are outlined as follows:

Participants: Boys (Aa-Pp) Table 4

Resiliency Questions	?	Aa	Bb	Cc	Dd	Ee	Ff	Gg	Hh	Ii	Jj	Kk	Ll	Mm	Nn	Oo	Pp
	1.	=	+	=	+	+	=	+	+	=	=	+	=	+	=	+	+
	2.	+	+	+	=	+	+	+	+	=	+	+	=	+	=	+	+
	3.	+	+	+	=	=	+	+	+	=	+	=	-	-	-	+	+
	4.	=	+	=	=	+	+	=	+	+	=	=	+	=	+	=	+
	5.	=	+	+	=	-	=	=	=	=	-	=	+	-	=	=	=
	6.	+	=	=	+	=	+	=	+	+	+	-	=	+	+	+	+
	7.	+	=	+	+	-	=	+	+	-	=	=	+	=	+	=	=
	8.	=	+	=	-	-	-	=	+	-	=	+	-	=	+	=	+
	9.	=	+	=	-	-	+	-	+	=	=	=	=	+	+	=	+
	10.	=	+	+	=	=	-	+	=	=	=	+	=	=	+	=	+
	11.	=	=	=	+	=	+	+	=	=	=	=	=	=	=	+	=
	12.	-	=	-	-	=	+	-	+	=	=	+	-	-	+	-	+
	13.	=	-	=	-	-	=	-	+	=	-	-	+	+	=	+	=
	14.	+	+	-	-	-	=	+	=	-	-	=	+	=	+	+	=
	15.	=	+	=	=	=	+	+	+	-	=	+	+	=	+	=	=
	16.	+	=	+	=	-	=	+	+	-	=	+	=	+	=	=	+
17.	+	-	=	=	=	=	+	+	=	=	=	+	+	=	-	-	
18.	=	-	-	+	-	+	=	+	=	=	=	-	+	-	=	+	
19.	+	=	+	+	-	+	-	-	=	=	-	+	=	+	-	-	
20.	+	+	=	-	-	=	+	+	-	=	-	-	=	+	+	=	
21.	+	=	=	+	-	+	+	-	+	=	+	-	-	=	+	=	
22.	=	+	=	-	-	=	=	+	+	-	=	-	+	+	=	=	
23.	-	=	=	-	=	+	=	+	=	-	=	=	=	+	=	+	
24.	=	=	=	-	=	+	=	+	-	+	-	+	=	+	=	+	
25.	+	-	=	-	-	+	=	-	=	-	=	-	-	+	=	-	
26.	-	=	=	+	+	=	-	=	+	=	-	+	=	=	=	=	
27.	+	=	+	=	-	-	+	=	-	-	+	=	=	+	-	=	
28.	+	=	=	-	=	+	=	+	-	=	=	=	=	+	=	=	
29.	=	-	=	=	=	+	+	=	+	+	+	=	=	+	+	+	
30.	=	=	=	+	=	+	+	+	+	=	=	=	+	+	+	=	
31.	=	=	+	=	=	+	+	-	+	+	+	+	=	+	=	+	
32.	+	=	=	=	=	+	+	+	+	+	+	=	=	+	=	=	
33.	=	=	+	=	-	=	+	+	+	=	+	=	+	=	=	+	
34.	+	=	=	+	=	=	=	+	+	+	-	=	=	+	+	+	
35.	+	=	=	=	-	+	-	+	+	-	+	-	=	=	+	-	

36.	+	=	=	=	-	+	=	+	+	-	+	=	=	+	+	=
37.	+	=	+	-	-	-	=	-	=	=	+	=	=	=	=	+
38.	+	+	=	=	=	+	=	+	=	=	=	=	=	=	=	=
39.	+	-	=	=	=	=	-	+	+	+	+	+	+	+	=	=
40.	=	-	+	=	+	+	-	+	-	=	-	+	=	=	+	=
41.	=	-	+	=	-	+	+	-	+	=	+	+	=	=	+	=
42.	=	-	=	=	=	+	=	+	=	-	=	=	=	+	+	+
43.	=	+	=	=	=	+	+	=	+	-	+	+	=	+	=	-
44.	=	+	+	+	-	+	=	=	=	-	+	=	=	+	=	=
45.	+	=	=	=	=	+	=	=	+	=	=	+	=	+	=	=
46.	=	=	=	=	=	+	=	=	+	-	-	+	=	=	+	=
47.	+	-	-	+	+	=	-	+	=	=	+	=	=	+	+	+
48.	=	=	+	-	+	+	-	=	+	=	=	+	=	+	+	+
49.	+	+	-	=	+	+	=	=	=	-	=	=	=	=	+	+
50.	=	=	-	=	+	+	=	=	+	+	=	=	+	+	=	+
51.	=	-	=	+	=	+	+	+	=	-	=	=	+	-	=	+
52.	+	=	=	+	=	=	+	+	=	=	=	=	=	-	-	+
53.	=	=	=	-	+	+	+	+	+	+	+	=	-	-	=	+
54.	+	=	=	-	=	+	+	+	+	=	=	+	+	-	=	+
55.	-	=	+	=	=	=	+	=	+	=	=	-	+	=	=	+
56.	=	+	+	+	=	+	=	+	+	=	-	=	+	+	=	=
57.	+	=	=	=	+	+	=	+	=	=	-	=	=	+	-	=
58.	+	=	=	+	+	=	=	+	+	=	-	+	+	+	+	=
59.	=	=	=	+	+	+	=	-	+	+	+	=	+	-	=	+
60.	=	=	=	=	+	+	-	+	=	=	=	=	-	+	+	=
61.	+	+	-	-	+	+	=	=	=	=	=	+	+	+	=	=
62.	=	=	-	-	=	+	=	+	+	+	=	+	+	=	=	=
63.	+	=	=	=	=	+	+	+	+	=	+	=	=	=	=	=
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65.	=	+	=	=	-	+	+	-	+	+	=	+	+	-	+	=
66.	+	=	=	=	+	+	+	+	+	=	-	+	+	+	=	=
67.	=	=	=	=	=	+	=	+	+	+	=	+	=	+	=	=
68.	+	=	=	=	+	+	=	+	+	=	=	+	+	+	-	=
69.	+	+	=	=	+	+	=	=	+	=	=	+	+	+	+	=
70.	-	=	=	=	=	+	-	=	+	+	=	+	=	+	=	+
71.	-	=	=	=	+	+	=	=	+	-	=	=	+	+	+	=
72.	-	=	-	=	+	=	=	+	=	=	-	+	+	+	+	+
73.	=	-	=	=	+	+	-	=	+	=	-	+	+	+	=	+
74.	=	+	=	+	+	+	-	=	=	-	+	+	=	+	+	=
75.	=	=	=	=	+	+	=	=	=	=	=	+	=	+	=	+

Graph 2:



The summarized score of the male participants illustrated by the graph indicates that twelve of the sixteen participants had an increase in the way they perceive their level of resilience after administering the Resilience Enhancement Kit. Four of the participants (Aa, Dd, Ee and Oo) showed a decrease in their perception of their resilient functioning. Ten of the participants (Aa, Cc, Dd, Ee, Hh, li, Jj, Kk, LI and Oo) all viewed themselves as very resilient in the pre-and post tests. Participants Mm and Nn viewed themselves as having average resilience competencies in the pre-test but in the post test viewed themselves as being very resilient. Although four of the participants (Bb, Ff, Gg and Pp) showed an increase in resilient functioning, they still viewed themselves as having average resilience competencies. Participants Aa, Ee and Oo all showed a one-point decrease in functioning while Participant Dd showed a two-point decrease in his perception regarding his resilient functioning. Participants Bb and Mm both showed a four-point increase in their perception of their resilient functioning. Participants Cc and Jj showed a one-point increase while participants Gg and Hh

showed a seven-point increase in their perception regarding their resilient functioning after participating in the Resilience Enhancement Kit. Participant Ff showed a three point increase; Participant li a two points; Participant Kk eight points; Participant Ll six points; Participant Nn showed a seventeen point increase and Participant Pp showed a ten point increase in the way they perceive their level of resilience. If the items that constitute the different resilient modalities are compared (pre-and post-tests) the following became apparent:

❖ **Emotional Competence:**

➤ **Identifying, management and communication of emotions**

In the subdivision identification, management and communication of emotions eight of the participants (Aa; Ff; Gg; Hh; Ll; Mm; Nn and Oo) experienced an increase in their perception compared to their scores in the pre-test. Five of the participants (Bb; Cc; Dd; Ee and Kk) experienced a decrease in their views regarding their resilient functioning pertaining to emotions. Participants li and Jj did not show significant deviations in the scores from the pre- and post test, although their answers were in favour of the positive range of the scale. Participant Pp's answers reflect that three of his five answers that remained the same as in the pre-test fell within the negative range of the scale, two answers showed a decrease in perception while three answers showed an increase in his perception regarding his emotions. Although there was an increase in the learner's perception regarding this subsection on emotions, it did appear that the male learners experienced difficulties with applying the skills to calm themselves down if they feel angry; feeling remorse when they did something wrong or hurt someone. They also had difficulty with identifying their emotions and physical reactions they are experiencing, discriminating between the intensity of volatile emotions such as anger and being able to discuss their feelings with others.

➤ **Empathy**

Eleven of the male participants (Aa; Bb; Cc; Gg; Hh; Jj; Kk; Ll; Mm; Nn and Pp) experienced an increase in their perception regarding their level of empathy. Three participants (Dd; li and Oo) scores for the pre- and post tests remained the same in favour of the positive range of the scale. Participants Ee and Ff experienced a decrease in their level of resilient functioning related to empathy. However, there is questions related to empathetic behaviour that they experienced in a more positive light. There seems to be an increase in the way the male participants view their level of empathy but the male participants seem to experience difficulties with trying to understand why people think the way they do; being able to place themselves in other people's shoes and to be able to identify when people need help or support.

➤ **Ego-resiliency**

The subsection ego-resiliency revealed that eight of the participants (Aa; Bb; Ff; Gg; Hh; li; Jj and Nn) experienced an increase in their resilient functioning. Another seven participants' (Cc; Ee; Kk; Ll; Mm; Oo and Pp) answers remained the same during the pre-and post test but they fall within the positive side of the scale. Participant Dd showed a decrease in his perception regarding his ego-resiliency. The male learners revealed that they found it difficult to wait before they act or achieve a goal and to think about the situation they do not understand and then ask for help.

❖ **Social competence:**

➤ **Healthy positive relationships**

The results from the subsection healthy relationships revealed that seven of the sixteen participants (Aa; Ff; Hh; li; Jj; Kk and Nn) experienced an increase in their resilient functioning after participating in the Resilience Enhancement Kit. Seven of the participants (Bb; Cc; Dd; Ee; Ll; Mm and Oo) showed little deviation

in their answers from the pre- and post tests and fell within the positive side of the scale and participant Pp's answers fell within the negative side of the scale. Participant Gg showed a slight decrease in his perception regarding his relationships, however there were three answers that showed an increase and two answers that remained the same in favour of the positive side of the scale. Although there has been an increase in the male participants' perception regarding their resilient functioning within relationships, some of the participants still experience difficulties with identifying a teacher who really cares about them and listens to them as well as allowing negative criticism from family and friends to bother them.

➤ **Sense of self**

The items related to sense of self revealed that nine (Ff; Gg; Hh; Ii; Kk; Ll; Nn; Oo and Pp) of the sixteen participants experienced an increase in their perception of their resilient functioning. Six of the participants' (Aa; Cc; Dd; Ee; Jj and Mm) answers remained largely the same in the pre- and post test in favour of the positive side of the scale. Participant Bb showed a slight decline in his perception regarding this resilient functioning, however the same number of answers remained the same in favour of the positive side of the scale and on three items he showed an increase. The items some of the participants experienced difficulties with included drawing on their belief in themselves to get them through hard times, being flexible in dealing with stress, keeping a sense of humour when things get tough and feeling that they have a role to fulfil within society.

❖ **Cognitive competence:**

➤ **Meta-cognition**

The subsection meta-cognition revealed that eight of the participants (Aa; Ee; Ff; Hh; Ii; Ll; Mm and Nn) experienced an increase in their ability to problem solve and make decisions. Seven of the participants (Bb; Cc; Dd; Gg; Jj; Oo and Pp)

pre-test answers correlated with the post-test ones in favour of the positive side of the scale. Participant Kk's answers revealed that on two items he experienced an increase; four items remained the same as in the pre-test in favour of the positive side of the scale while four items showed a decrease in his perception regarding his resilient functioning. The participants answers indicated that they experience difficulties in their ability to find different solutions and thinking about alternative results by utilizing the "brainstorm" method as well as taking responsibility for decisions even if was the wrong ones.

➤ **Future expectations and goals**

Eight of the participants (Ee; Ff; li; Ll; Mm; Nn; Oo and Pp) experienced an increase in their resilient functioning for the subsection future expectations. The eight remaining participants' (Aa; Bb; Cc; Dd; Gg; Hh; Jj and Kk) answers remained the same in the pre- and post test in favour of the positive side of the scale. The item the participants felt a need for further development related to making choices and plans that are guided by their values.

❖ **Summary of the male participants' results**

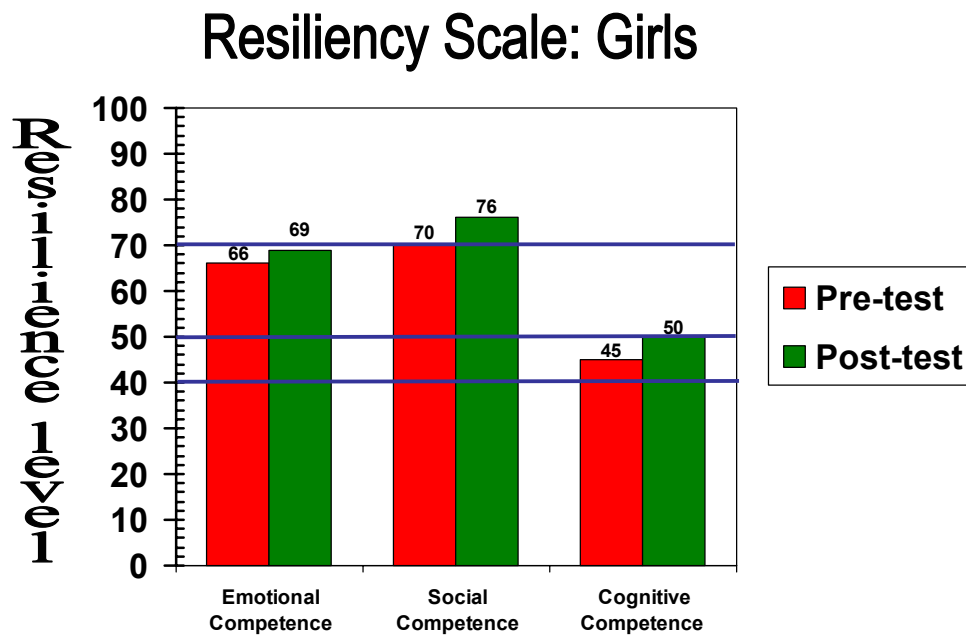
In summary, the male participants appeared to experience an increase in their competencies related to resilient functioning after participating in the Resilience Enhancement Kit. Twelve participants (Aa; Cc; Dd; Ee; Hh; li; Jj; Kk; Ll; Mm; Nn and Oo) view themselves as very resilient and four participants (Bb; Ff; Gg and Pp) view themselves as average in resilient functioning after the post-test phase. The results indicate that the competencies the male participants feel a need for further development is in the emotional competence (identification, management and communication of emotions; ego-control) followed by the social competence (sense of self). Due to social scripts, males are taught not to respond emotionally to situations, which could have an effect on why there is a need for further development. Boys tend to react more impulsively than girls do because they are focused on gratifying their needs because they are self-centered at this time in

their development. Just as with the female participants, the male participants are also still developing their identity (sense of self) which is part of this developmental phase.

6.8.3.3. Summary of combined Resilience competencies

If the average mean of the emotional-, social- and cognitive competencies regarding the girls' Resiliency Scale is taken into account after the Resilience Enhancement Kit was administered and the post-test phase completed the results can be indicated as follows:

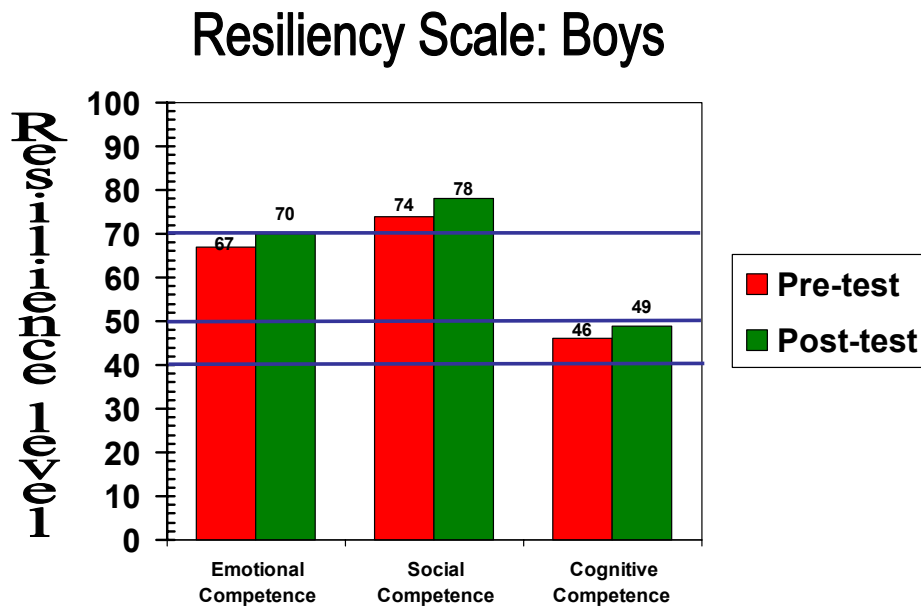
Graph 3:



The social resilience competencies are dominant in the female participants' life. This can be contributed to the strong bond female middle adolescents have with each other and as a result, they discuss all their problems with each other and use each other as a support system. After administering the Resilience Enhancement Kit there was an increase of 6-points in this competency. The second dominant competence in the female's life appears to be the emotional

resilience competencies. Female middle adolescents appear to be more in tune with their emotions than males and this might be due to the acceptance (social scripts) that females can express their emotions freely and for example use crying as an outlet when confronted with adversities in life. There was a 3-point increase in this competency after administrating the Resilience Enhancement Kit. The competency in need of further development is the cognitive resilience competency. Although there was a 5-point increase after participating in the Resilience Enhancement Kit, the female participants view this as an area for growth. Due to their cognitive development during this middle adolescent phase, they might still have difficulty in utilizing their meta-cognitive skills as well as setting future goals.

Graph 4:



The social resilience competencies are also dominant in the male participants' life. This can be contributed to the important role that peer acceptance and being part of a group has for this phase in development. After administering the Resilience Enhancement Kit there was an increase of 4-points in this competency. The second dominant competence in the males' life also appears to be the emotional resilience competencies. There was a 3-point increase in this

competency after administrating the Resilience Enhancement Kit. Although social expectations might limit the way boys express themselves emotionally, it appears that they do feel they have the ability to manage their emotions. Just like with the female participants the competency in need of further development is the cognitive resilience competency. There was a 3-point increase after participating in the Resilience Enhancement Kit but the male participants also view this as an area for growth. Due to their cognitive development during this middle adolescent phase, they might still have difficulty in utilizing their meta-cognitive skills as well as setting future goals.

The results from the post test phase (Resiliency Scale) revealed that half of the female participants compared to a third of the male participants viewed themselves as average in resilient functioning while the rest of the participants viewed themselves as very resilient. This implies that the male participants appear to view themselves as more resilient than the female participants do. The items on the Resiliency Scale for learners that correlate between the female and male participants are:

➤ **Emotional competency:**

- ❖ to calm themselves down when they feel anxious;
- ❖ discussing feelings with others;
- ❖ thinking before acting;

➤ **Social competency:**

- ❖ reflecting and asking for help;
- ❖ identifying a teacher who cares about them and listens to them;
- ❖ having a role to fulfil in society and being able to contribute as an middle adolescent.

➤ **Cognitive competency:**

- ❖ their ability to understand why people think the way they do;
- ❖ being able to wait for a period of time before getting something they want or achieving a goal.

6.8.3.4. Gender specific results

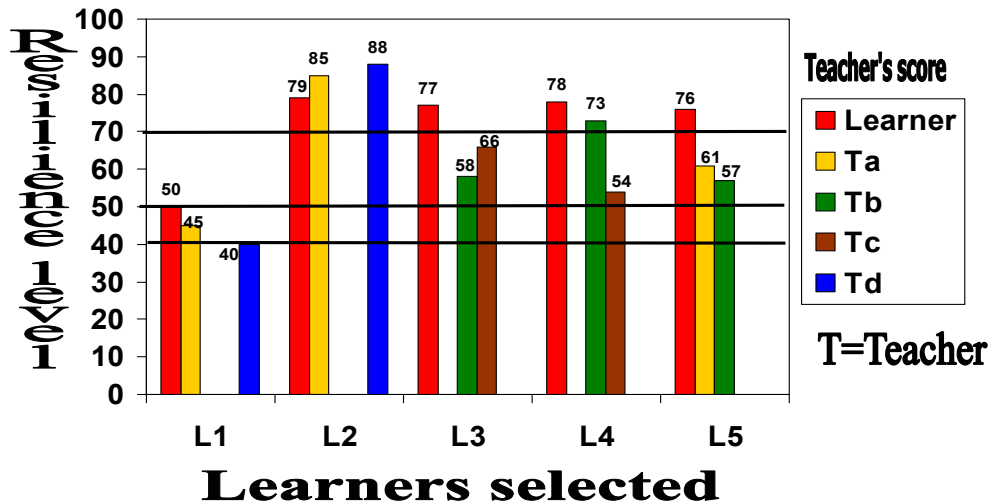
Some of the items identified by the female and male participants respectively appeared to be gender specific. The female participants appeared to have difficulties with being genuinely interested in what people have to say (adolescent girls are often malicious towards each other); manipulating people or situations to get what they want; creating their own safety when faced with physical threats or when they are exposed to violent situations. The male participants appeared to have difficulties with being able to place themselves in other people's shoes; feeling remorse when they have done something wrong or hurt someone; being able to identify their own emotions and taking responsibility for wrong decisions they make. Although society often attributes these above-mentioned aspects to males and females, it is noteworthy the middle adolescents themselves identified the aspects that have to be developed. As mentioned in chapters 2-4, child-rearing practices, social scripts and roles as well as naturalistic tendencies might all have an impact on the way middle adolescents view themselves.

6.8.3.5. Analysis of the comparison between the Resiliency Scale for Learners and Teachers.

The comparison between the middle adolescents' scores related to their resilient functioning to that of how the teachers perceive the learners' level of functioning in the pre-test phase can be illustrated as follows:

Graph 5:

Resiliency Scale: Teachers



Three of the learners (L1; L2 and L4) chosen by the teachers were male participants and two were female participants (L3 and L5). Learner one did not complete the post-test after participating in the Resilience Enhancement Kit due to relocation shortly after the last session was completed, but his pre-test indicated that he felt that he was average in his resilient functioning. Teacher A and D felt that learner one needed assistance with his resilient functioning and rated him 5-10 points lower than the learner's personal score. Learner two viewed himself as very resilient and both teachers A and D concurred. However, the teachers rated learner two higher (6-9 points) than the learner rated himself. Learner three views herself as very resilient but teachers B and C rated her average in resilient functioning with a 19-11 point decrease in the teacher's views. Learner four views himself as very resilient, which correlates with teacher B's view although there was a 5-point decrease in the teacher's view compared to the learner's score. Teacher C however, viewed learner four as average in his resilient functioning with a 24-point decrease in the teacher's view compared to the learners score. Learner five also experienced herself as very resilient but teachers A and B felt that she was average in her resilient functioning.

The teacher's views reflected a 15-19 point decrease in comparison to the learner's score for her resilient functioning.

The results therefore indicate that the learners experience themselves more resilient than the teachers view them. This might be contributed to the fact that teachers do not know the learners' history of how they rebound against adversity but it might also be because the middle adolescent has an idealized view of his or her competencies in dealing with life's stressors. The teacher's answers did not show a significant deviation between the resilience modalities.

- ❖ One of the significant items that the learners identified, was a need for a teacher who they can trust, who will listen to them and who cares about them. This implies that the learners' experience the teachers (significant role players in the school context) as uninvolved in helping them cope against the onslaughts of life.
- ❖ Furthermore, it seems the discrepancy in the learners' and teachers' views regarding the learners' resilient functioning, indicate that there is a significant difference in identifying the resilience modalities that need to be enhanced and developed by the learners to rebound against adversities.

A word of caution must be given at this time that the Resiliency Scales rely on middle adolescents' perceptions and opinions and as a result the scores is not a totally unbiased reflection of the middle adolescents' real-life functioning and must be kept in mind when interpreting and comparing the scales. The need for teachers and psychologist to become involved with learners in enhancing and developing their resilience modalities became apparent in this research and should therefore be addressed to ensure that learners become productive and well-adjusted citizens who can adapt to changes in the country.

6.8.3.6. Factors identified by learners that influence their level of resiliency.

An open-ended question was posed to the middle adolescents to ascertain what they consider an influence on their level of resiliency. The middle adolescents considered friends who accept them and care about them when they go through a tough time as the primary aspect that contribute to their ability to cope and rebound. The love, support and comfort of their family members was the second most common reason given by the middle adolescents that contribute to their resilient functioning. Eight of the learners felt that having a sense of humour and making jokes about difficult situations helped them cope. Five of the middle adolescents linked coping with difficulties in life to school functioning and reported that working hard in their subjects, trying their best in the subjects they do not understand, getting good marks and asking a teacher for help if they do not understand work are strategies they use to rebound. Single aspects that influence their resilient functioning were also identified and these aspects include playing sports, bonding with their pets, listening to music and drawing strength from their religion. However, three of the male middle adolescents felt that they did not have any resources to help them cope but they felt better when they used alcohol, smoked a cigarette, played war games on the computer or hit the person who caused them problems. It can be concluded that these perceptions of the middle adolescents reinforce the need for schools to assist learners in identifying resources they can utilize and competencies they can develop to enhance the middle adolescents' resilience modalities. The Resilience Enhancement Kit provides a guideline to assist teachers and psychologists in achieving this goal.

6.9. Conclusion

- ❖ The results obtained from the Resiliency Scale for learners as well as the evaluation questionnaires filled in by the middle adolescents revealed that the Resilience Enhancement Kit developed and enhanced the resilience modalities of the 14-year old inner-city learners.
- ❖ The comparison between the pre-and post test results revealed that the majority of middle adolescents view themselves as very resilient.
- ❖ There appear to be a gender difference in the way middle adolescents perceive their level of resilience and the male learners seem to view themselves more resilient than the female learners do. This might be due to the way boys are reared because of social scripts and that they are focused on solving problems quickly to be able to move on (example they get into a physical fight and the situation is over where girls tend to brood over problems and not address them head on).
- ❖ The high correlation level in the answers given in the pre- and post tests by the middle adolescents indicate that the Resiliency Scale is reliable and valid and is therefore an appropriate instrument to measure the level of resilient functioning in middle adolescents.
- ❖ The Teacher scale indicated there is a discrepancy in the perception of teachers and learners' regarding the middle adolescents' resilient functioning.
- ❖ The learners experienced a need for teachers to be a resource to be utilized in the school context.

In the next chapter the summary, conclusions and recommendations of the research will be discussed.