STRATEGIES TO OVERCOME OBSTACLES IN THE
FACILITATION OF CRITICAL THINKING IN
NURSING EDUCATION

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AGNES MANGENA

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Promoter: Prof. MM Chabeli
Co-promoter: Dr. EJ Arries
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THIS STUDY IS DEDICATED TO MY MOTHER MAMAPEDI MAHKENE

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SUMMARY

Critical thinking is the ideal of a democratic citizenry of a country. Intellectual liberation is the characteristic of the human mind, but it is learned as the individual takes a conscious step into developing his/her critical thinking skills. The virtues of a critical thinker are open-mindedness, intellectual integrity, intellectual empathy, intellectual courage, accommodation for ambiguity, ability to metacognise and acceptance of one’s faults in thinking and a willingness to adapt one’s beliefs and values. The nursing profession has a dire need for critically thinking practitioners, who will be able to make calculated judgements that brings about life-saving decisions.

Nursing education need to adopt an educational approach that integrates development and facilitation of critical thinking in students. Scholars support the ideal of development and facilitation of critical thinking in the classroom as well as in practice. The purpose of this study is to describe strategies that can be used to overcome obstacles in the facilitation of critical thinking in nursing education. To realize this purpose the researcher undertook a qualitative, exploratory, descriptive and contextual research approach (Mouton 1998). The research design is conducted in 2 phases.

The focus group interviews (Krueger 1994), is the method of data collection used to collect data from both the nurse educators and student nurses. Ethical considerations (DENOSA) are explained to the participants and adhered to throughout the study. Data is collected separately from both groups of participants in phase 1 of the study. The participants are requested to describe the obstacles in the facilitation of critical thinking in nursing education. They are further requested to describe the strategies that can be used to overcome these obstacles. Guba’s framework (Lincoln & Guba 1985) of qualitative research is used to establish trustworthiness. Tesch’s (in Cresswell 1994) protocol of qualitative data analysis is used to analyse the data.

Conceptualisation (Mouton 1998), is undertaken in phase 2 of the study whereby the strategies described by the participants are integrated into existing conceptual frameworks. The findings of the study gave an indication that the participants described the appropriate obstacles in the facilitation of critical thinking in nursing education with relevant strategies to overcome them. It became apparent that there is a need for nurse educators to develop their own critical thinking skills in order to be able to facilitate critical thinking in students. Strategies includes a change in the attitude of educators, continued education for the educators, consideration of the students’ educational background, appropriate selection process of nursing students, consideration of language, socialization and culture of the student and the use of appropriate teaching strategies that are facilitative of critical thinking. These strategies are inductively and deductively drawn from the described strategies through the use of inferences.

The recommendations arising out of the study are based on the findings that there is an urgent need to make a concerted effort to facilitate critical thinking in students and further research on how to integrate critical thinking in the curriculum as well as appropriate evaluation of the skills.
OPSOMMING

Kritiese denke is die ideaal van 'n demokratiese burgers van 'n land. Intellektuele bevryding is die karaktereis van die menslike brein, maar dit word geleer wanneer individu 'n bewuste stap neem om sy/haar kritikal denkvaardighede. Die deugde van 'n kritiese denker is verligtheid, intellektuele integriteit, intellektuele empatie, intellektuele waagmoed, akkommodasie vir dubbelsinnigheid, vermoë om te metakogniseer, 'n aanvaarding van jou eie foute in denke en 'n bereidwilligheid om jou gelowe en waardes aan te pas. Die verpleeg professie het 'n nypende nood vir krities denkende praktisyns wat in staat sal wees om berekende uitsprake te maak wat lewensreddende besluite meë sal bring.

Verpleeg-opvoeding moet 'n opvoedkundige benadering aanneem waat ontwikkeling en fasilitering van kritiese denke in studente integreer. Geleerdes onderstun die ideaal van ontwikkeling en fasilitering van kritiese denke in die klaskamer asook in die praktyk. Die doel van hierdie studie is om strategie te beskryf wat gebruik kan word om struikelblokke in die fasilitering van kritiese denke in verpleegondergrond te oorkom. Om hierdie doel te realiseer het die navorser 'n kwalitatiewe, ondersoekende, beskrywende en kontekstuele navorsingsbenadering onderneem (Mouton 1998). Die navorsingsontwerp word in twee fases gedoen.

Die fokus-groep onderhoude (Krueger 1994), is die metode van data-insameling wat gebruik is om data van beide verpleegopvoeders en student-verpleegsters in te vorder. Data is afsonderlik van beide groep deelnemers aan fase een van hierdie studie ingevorder. Die deelnemers is versoek om die struikelblokke in die fasilitering van kritiese denke in verpleegopvoeding te beskryf. Hulle is ook versoek om die strategie wat gebruik kan word om die struikelblokke te oorkom, te beskryf. Etiese oorweging (DENOSA) word aan die deelnemers verduiide en word nagevolg reg deur die studie. Guba se raamwerk (Lincoln & Guba 1985) van kwalitatiewe navorsing word gebruik om vertrouenswaardigheid te vestig. Tesch (in Cresswell 1994) se protocol van kwalitatiewe data analise word gebruik om die data te analiseer.

Konseptualisering (Mouton 1998), is in fase twee van die studie gedoen waartydens strategie deur die deelnemers beskryf in bestaande konseptuele raamwerke geëntergreer is. Die
bevindings van die studie gee 'n aanduiding van dat die deelenemers die toepaslike struikelblokke in die fasilitering van kritiese denke in verpleegopvoeding met relevante strategie om dit te oorkom, beskryf het. Dit het duidelijk gesord dat daar 'n behoefte is dat verpleegopvoeders hulle eie kritiese denke moet ontwikkel om sodoende die kritiese denke van die studente te kan fasiliteer. Die strategie sluit 'n vernadering in die houding van die opvoeders, volgehoue opvoeding vir die opvoeders, in ag neming van die student se opvoedkundige agtergrond, toepaslike keurproses van verpleegstudente, inag neming van taal, sosialisering en kultuur van die student en die gebruik van toepaslike onderrigstrategie wat fasiliterend is van kritiese denke. Hierdie strategie induktief en deduktief vanuit die beskrywe strategie deur die gebruik van gevolgtrekkings bekom.

Die aanbevelings wat uit die studie voortspring is gebaseer op die bevindings dat daar 'n dringende behoefte is om 'n daadwerklike poging te maak om kritiese denke in studente te fasiliteer en verdere navorsing oor hoe om kritiese denke in die kurrikulum en evaluering van die vaardigheid te integreer.
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CHAPTER 1

AN OVERVIEW OF THE STUDY

1.1 BACKGROUND AND RATIONALE

Many countries all over the world are looking for better ways of educating their people and organizing their education systems. There is a global outcry for an universal practitioner with critical thinking skills that will enable them to form community partnerships, understand the role of politics and law in reimbursement and health care delivery, and creating interdisciplinary approaches to community based plans. The paradigm shift is from education for employment – developing the ability to a specific job – to education for employability – developing the ability to adapt to acquired skills to new environments. This requires educational institutions to produce practitioners who have the ability to identify and solve problems and make decisions displaying the use of critical and creative thinking, among other critical outcomes, (SAQA, 1995).

Gibbon 1998, (in National Plan of Higher Education 2001) is of the opinion that the necessary skills for the 21st century are computer literacy, knowledge reconfiguration skills, information management, problem solving in the context of application, team building, networking, negotiation / mediation competencies and social sensitivity. These multiple skills can only be demonstrated by a graduate who is a critical thinker. Critical thinking includes more than just the intellectual domain of human functioning as it is supported by other domains such as the emotional domain, (Paul, 1984 in Costa, 1991: 77). Zimmerman and Phillips, (2000: 422-423) asserted that attention should also be given to the affective domain of teaching as it is vital to enhancing critical thinking as well as being essential for developing student’s attitude of caring.
The South African government is of the viewpoint that training programmes should teach practitioners to treat customers courteously and with consideration, (South Africa, Batho Pele, White Paper on Transforming Public Service Delivery, 1997). Educational programmes should be such that they provide a climate conducive for critical discourse and creative thinking, cultural tolerance and a common commitment to humane, non-racist social order, (National Plan for Higher Education, 2001). Therefore nurses should embrace the principles of beneficence, non-maleficence, autonomy, justice and fidelity.

Critical thinking is an essential component of practice, communication, problem solving ability, theoretical and conceptual understanding of nursing concerns and research endeavors that advance the knowledge base of nursing, (Shin 1998: 415). Therefore the demonstration of critical thinking in the clinical setting is a universal expected behavior of professional nurses in practice. According to the American Philosophical Association in Clarke and Holt, (2000: 72) critical thinking is a purposeful, self regulatory judgement which result in interpretation, analysis, evaluation and inference, as well as explanation of the evidential, conceptual, methodological, criteriological or contextual considerations on which judgement is based. Although there has now been considerable discussion and much work done on the goal of cultivating student thinking all over the world, in many ways we still have a long way to go. There is still insufficient appreciation of the global shift that a genuine cultivation of student’s thinking is required, (Costa, 1991: 77).

Critical thinking is considered essential for democratic citizenship, (Goodland in Schiever 199: 48). The goal of teaching critical thinking is to develop people who are fair-minded, objective and committed to clarity. The ever changing and increasing complex state of knowledge development is demanding higher order thinking skills in students of all disciplines. In almost all academic disciplines critical thinking has been adopted as an educational goal. The development of critical thinking abilities in the professional education is a complex affair. According to Glen, (1995: 170-176) critical thinking is regarded as an
indispensable component of education, a trait of an educated person. Educated people are not only well learned, they think well. She further asserts that critical thinking as an educational idea is based on the philosophy that critical thinking is essential to true autonomy in a complex society. In an environment of skepticism it is composed of analyzing complex meanings, critiquing solutions, exploring alternatives and making contingency related value judgement.

Swarts and Parks, (1994: 339) are of the opinion that thinking skillfully about causal explanation, prediction, generalization, reasoning by analogy, conditional reasoning and reliability of sources of information is essential in our lives and professional work. Students will quickly develop the habit of mind necessary to become good critical thinkers when these skills are taught across the curriculum and suitably reinforced. The downfall is, one cannot teach critical thinking if they are not critical thinkers themselves. Most educators did not have their own critical and reflective thinking developed when they were learners, which makes it difficult for them to facilitate critical thinking. Educators are textbook bound and are focused on transmission of content, (Van der Horst & McDonald 1997: 28).

The common practice in schools is as observed by Paulo-Freirre (in Weil & Anderson (1992: 75), students are asked to answer questions rather than question answers. He describes this as a"banking" education where teachers deposit information and skills in students' memory banks. Consequently the role of the student is nothing but to parrot back the previously deposited information. This method is prevalent in most compensatory education programs where the purpose is to remediate so called disadvantaged students through drill and practice, rather than engaging in guided inquiry that enables them to critically question and reflect on issues.
Genuine freedom is intellectual, it rests in the trained power of thought, in the ability to “turn things over”, to look matters deliberately, to judge whether the amount and kind of evidence for decision is at hand, if not where and how to seek such evidence, (Dewey 1960: 9). Society as a whole is said to benefit from a critical thinking citizenry, and indeed this is said to form the very basis of democracies and is fundamental to maintaining the democratic way of life, (Glacer 1985, Paul 1984 in Daly 1998: 323). Critical thinking is a liberating force in all human thoughtful activity, including that of nurses. Critical thinking offer methods to transform students into active participants in their own intellectual growth. Bandman and Bandman (1995: 4) are of the view that education is training in how to think rather than what to think, it is a confrontation dialogue between ways of assessing evidence and supporting conclusion. Paul (in Costa 1991: 75) asserts that skilled thinkers are driven by a passion for getting to the bottom of things, are devoted to seeking the truth and are inclined to ask probing questions about why things are believed to be the way they are asserted to be, are persistent in thinking their way through perplexing problems and are averse to sloppy ambiguous thinking. These virtues are seldom seen, if at all in nurses, as they tend to think as a group and are bound to follow standard rather than question issues, (Botes 2000: 30).

Glen (2000: 24-25), asserted that nurse educators still rely heavily on teaching factual information and do not foster independent learning, critical reasoning or problem solving among in students. Through critical thinking students can be empowered to control their own destiny, to encourage them to ask questions, to look for evidence, to seek and scrutinize alternatives, to be critical of their own ideas and those of others. Mpaka and Uys (1999: 17) observed that students have difficulty in applying or transferring content across various contexts in practice. Students are unable to organize, prioritize or interpret facts learned and this means rote learning and memorization of facts as the only method used in
nursing education. Critical thinking could liberate students as critical thinkers are free of control of unjustified beliefs and attitudes that cannot be supported.

Siegel (in Bandman and Bandman 1995: 5) affirms that to teach critical thinking is to facilitate students' self-sufficiency and autonomy, to help students to act and judge on the basis of reasoned appraisal of the matter at hand. The appropriate form of liberal education flourishes when it prepares the way for a discussion of a unified view of nature and man's place in it, which the best minds debate on the highest level, (Sellers 1994: 59). In contrast a study by Mashaba (1986: 395-401) brought to light the fact that students lack independent learning and study skills and are completely dependent on the teacher. These students are rote learners and superficial thinkers and they proceed to become non critical thinking practitioners. This is supported by Fichardts et al (2000: 88) who evidenced that many students lacked problem solving and critical thinking skills. Passive academic behavior was common and some students demonstrated an inability to integrate and apply knowledge from the basic sciences in the clinical context.

According to document 15 of 1999, the South African Nursing Council envisages a practitioner who will fulfill the role of provider / collaborator of health care, professional and advocacy role. Competencies required for these roles are problem solving and critical thinking among others. Marks-Maras (1997: 158) emphasizes that nursing education should sharpen the students critical thinking, make them responsive to their own reflection, foster creativity, build moral purpose, enhance their capacity to be in a relationship with patients, create caring and enable them to tap into their intuition. In recent years nurses have been exhorted to critically examine or critically analyze nursing knowledge and theory, (Clarke & Holt 2000: 17). It is common to both hear and read statements about the need for nurses to develop critical thinking in order to analyze situations or events and to examine research findings. In a study by Botes (2000: 30) it was found that nurses are not curious, open-minded, have no humility, courage and perseverance, which are virtues of critical thinking. There is
pressure from within and without regarding the nursing profession`s purposes, educational preparation, practice role, theory, research and its relation to medicine.

Critical thinking is a routine part of nurses` work and an integral part to their decision making in practice. Jones and Brown (in Girot 1995: 387) asserted that critical thinking is a requirement for nurses to be safe, competent and skillful practitioners and essential to true autonomy. In general, as Glen (1995: 173) observed, nurses tend not to analyze their professional role, thereby fulfilling a prescriptive social stereotype. Nurses stop thinking after they have developed some comfortable, secure and safe habit of patient care. Habits not only feel good, but they discourage the use of critical thinking, inquiring and new ideas.

Miller (1989: 84) found that educators insist on finding the right answer from students, thereby interfering with the interactive facilitation of critical thinking. Students see their goal as merely to commit information to memory and to physically demonstrate safe practice in the clinical setting. They are not given the opportunity to develop higher order thinking (Haddock 1996: 922). Students are socialized into extensive lecture method, whereby the teacher handles the subject matter. They become frustrated when student centred methods of teaching are used and they are required to take responsibility of their own learning, (Simelane et al 1997: 612-617). Therefore students tend to perceive text as hard objective that they must be understood literally, (Girot 1995: 390).

Nurses should be aware of their thinking and reasoning and that of other people so as to be able to identify reasoning and thinking error. Critical thinking is one alternative to formula driven nursing practice. If nursing is to survive and meet the clients` demands in society increasingly concerned with consumer rights and professional issues, future practitioners must be flexible, adaptable, proactive to change and be able to think critically, (Burrow 1993: 346). Educators are obligated to prepare practitioners with skills to meet the vast situations they will
confront. Therefore educators must expand their teaching to include a broader range of thinking skills, critical thinking included.

1.2 PROBLEM STATEMENT AND RESEARCH QUESTIONS

In spite of the objective of the SANC (15 / 1999), SAQA (1995) critical outcomes, National Plan for Higher Education (2001) and Batho Pele document (1997) of producing a practitioner with problem solving and critical thinking skills, there is still a problem as far as this objective is concerned. Based on observation by the researcher and supported by other research studies nurses seldom engage in critical thinking, if they ever do. Nurses tend to think superficially and are unable to question situations they are faced with, and engage in constructive argument in their everyday practice. There is a tendency to practice in a rigid manner, even though they use the nursing process for problem identification and intervention. The scientific method of the nursing process is used in a robotic manner and there is no critical thinking and analysis of issues in its application. This is evidenced by an increase in the negative reports about nurses' inhumane and gross negligence of clients and patients in the media. There has also been an upsurge in reported cases for disciplinary by the SANC. Therefore a study to explore and describe strategies to overcome obstacles in facilitation of critical thinking in nursing education is essential.

The following research questions arise from the problem statement:

a. What are the obstacles in the facilitation of critical thinking in nursing education?

b. How can the obstacles in the facilitation of critical thinking in nursing education be overcome?
1.3 PURPOSE AND OBJECTIVES

The purpose of this study is to describe strategies to overcome the obstacles in the facilitation of critical thinking in nursing education. This purpose will be attained through the following objectives:

a. To explore and describe the perceptions of nurse educators and students with regards to obstacles in the facilitation of critical thinking in nursing education and how these can be overcome.

b. To explore and describe strategies that can be used to overcome obstacles in the facilitation of critical thinking in nursing education.

1.4 ASSUMPTIONS OF THE RESEARCHER

The assumptions of the researcher will be clearly stated as they will direct the research, (Mouton 1996: 174). The researcher's assumptions are based within the framework of the Theory for Health Promotion in Nursing, (Rand Afrikaans University, Department of Nursing, 1999).

1.4.1 Meta-theoretical Assumptions

These assumptions originate from the researcher's philosophy and are not testable, (Mouton 1996: 174). They will serve as a framework within which the researcher will make theoretical assumptions.

1.4.1.1 Person: Nurse Educator and Student.

The nurse educator and student are seen holistically as beings consisting of body, mind and spirit. They function in an integrated, interactive manner within the nursing education context to facilitate
critical thinking.

1.4.2.1  **Environment: Nursing education.**

The nursing education context is an environment consisting of both the external and internal dimensions. The internal environment consists of body, mind, spirit, while the external environment consists of physical, social and spiritual dimensions. The nature of the interaction between these dimensions contributes to or interferes with provision of an environment conducive to overcoming obstacles in the facilitation of critical thinking in nursing education.

1.4.1.3 **Interactive facilitation.**

Interactive facilitation refers to a holistic and mutual involvement between the nurse educator and student in an integrated manner in nursing education in an attempt to facilitate critical thinking.

1.4.2  **Theoretical Assumptions**

The researcher believes nursing education is an open system that is in continuous interaction with other systems in the larger environment. The input (students) enters the system and as throughput is synthesized through the nursing education process. The output is graduates with critical thinking skills.

The study will depart from the constructivistic learning theories, theoretical frameworks for critical thinking and Bloom's Taxonomy (1956). These frameworks will give direction on what strategies could be used to overcome obstacles in the facilitation of critical thinking.
1.4.2.1 The constructivistic view to teaching and learning.

The constructivistic approach to teaching and learning as described by Ausabel (1968) and Vygotsky (1962) will give direction on what strategies could be used to overcome obstacles in the facilitation of critical thinking in nursing education.

1.4.2.2 Theoretical framework for critical thinking.

The study will depart from the theoretical frameworks of Paul (1993), Costa (1985) and Beyer (1988). Bloom's Taxonomy (1956) will direct the phases of critical thinking.

1.5 DEFINITION OF KEY CONCEPTS

This study constitutes of the following key concepts: critical thinking, strategies, obstacles, facilitation and nursing education.

1.5.1 Critical Thinking

Critical thinking is a high level of complexity of thought processes that involves a purposeful and self regulatory willingness or predisposition to think reflectively in order to make a decision in what to believe or do, by reasoning, analyzing, synthesizing, and evaluation of arguments, claims and assertions, so as to make justified explanation, inferences or judgement based on evidential, conceptual, methodological, criteriological or contextual considerations, (Schiever 1991, Swarts & Parks 1994, Costa 1991, Van der Horst & McDonald 1997, American Philosophical Association 1990 in Clarke & Holt 2001).
1.5.2 Strategies

Strategies are long-term plans, policy or the art of doing or moving into a favourable position.

1.5.3 Obstacles

Obstacles refer to something that stands in the way of and obstructs progress, a hindrance or impediment, (Oxford English Dictionary 1998).

1.5.4 Facilitation

Facilitation is a dynamic, interactive process for the promotion of critical thinking through the creation of an environment conducive to such thinking, (Theory for Health Promotion in Nursing, Rand Afrikaans University 1999).

1.5.5 Nursing Education

Nursing education is the process whereby students are guided, assisted, and provided with means which enable them to learn the art and science of nursing so that they can apply it to the nursing care of people who need such care, (Mellish et al 1998: 7)

1.6 RESEARCH DESIGN

The research design is the structure within which the study will be implemented, (Burns & Grove 1993: 225). It comprises of the research strategy, population and sampling, data collection method, data analysis and trustworthiness.
1.6.1 Research Strategy

The research strategy for this study will be a qualitative, exploratory, descriptive and contextual in nature, (Mouton 1996: 102-107, Burns & Grove 2001: 30). The purpose will be to describe strategies to overcome obstacles in the facilitation of critical thinking in nursing education. These strategies will be based on the explored and described perceptions of the participants of obstacles in the facilitation of critical thinking, as well as explored theoretical frameworks of critical thinking and concept related studies. This study will be conducted in two phases, whereby phase one will be divided into two stages, in which the perceptions of the nurse educators and student nurses with regard to obstacles in the facilitation of critical thinking in nursing education and how these could be overcome will be explored and described respectively. Phase two will be the conceptualization phase, whereby the concluding statements will form basis for strategies to overcome the obstacles in the facilitation of critical thinking will be described.

1.6.2 Population and Sampling

The population of this study will consist of nurse educators and student nurses in two nursing colleges in Gauteng. The non-probability purposive sampling method, (Burns & Grove 1993: 246) will be used.

1.6.3 Data Collection

Focus group interviews, (Morgan 1997: 6, Krueger 1994: 6) will be used to collect data from the samples.
1.6.4 Data Analysis

Tech’s (in Creswell 1994: 154-155) protocol of qualitative data analysis will be used to analyze data. A co-coder purposively selected will be used to verify the trustworthiness of data analysis.

1.6.5 Trustworthiness

Guba’s framework (Lincoln & Guba 1985: 316-327) of qualitative research will be used to establish trustworthiness. Credibility, transferability, dependability and confirmability, which are components of Guba’s framework will be maintained throughout the study. These components will be discussed in detail in chapter two.

1.6 ETHICAL CONSIDERATIONS

1.7.1 Quality of the research

The researcher has undergone training in research methodology and her study promoter is an expert in qualitative research, therefore the highest quality possible will be maintained in this study. The researcher will adhere to the standards of planning, implementation, evaluation and reporting of this research project. The researcher will maintain honesty, act in good faith and adhere to predetermined agreements throughout the research. The researcher will ensure that the process and results are trustworthy. The research will be conducted meaningfully and will contribute to the improvement of nursing practice.
1.7.2 Consent

Written informed consent will be obtained from all participants. The purpose, objectives and nature of participation in the study will be explained fully to the nurse educators and student nurses. Additional permission to use a tape recorder during the focus group interviews will be sought and all the tapes will be destroyed after the research. A debriefing session will be done before the focus group interviews. The participants will be made aware of the fact that they will benefit from this study as there are no inherent risks. The participants will be made aware of their right to terminate participation despite their initial consent to participate.

1.7.3 Confidentiality and Anonymity

No participants and / or institution will be referred to by name. No names will be used on the recorded tapes but symbols. The participants will be requested not to refer to one another by name but as colleague A, B etc. Should anonymity be threatened all research records will be destroyed. The participants will be informed that confidentiality will be wavered only during publication of the results.

1.7.4 Privacy

The dignity and worth of the participants will be maintained throughout the study. Only the data necessary to reach the objective of the study will be collected and the researcher will not go beyond what is necessary to achieve the objective of the study. No information will be used to embarrass the participants. Should privacy be threatened in any way or standards not adhered to, the participants will have a right to withdraw despite their initial consent to participate.
1.8 ORGANISATION OF PROPOSED CHAPTERS

Chapter 1 : Overview of the study

Chapter 2 : Research Design and methods

Chapter 3 : Results of the perceptual surveys

Chapter 4 : Conceptualization

Chapter 5 : Strategies, evaluation, limitations, recommendations and conclusion.

1.9 SUMMARY

There is a world wide outcry of critical thinkers in all educational disciplines. Governments also want citizens who are critical thinkers in order to sustain democracies and economies. South Africa is also in need of critical thinkers (SAQA 1995, SANC 1999). This study is essentially necessary to explore and describe the perceptions of nurse educators and student nurses with regard to obstacles to the facilitation of critical thinking in the current nursing education system in Gauteng. The main purpose of this study will be to formulate strategies that could be used to overcome obstacles in the facilitation of critical thinking, so that the nation and global demand of critical thinkers is met. In this chapter an overview of the research study was described, and it consisted of a background and rationale, problem statement, purpose and objectives, assumptions of the researcher, definition of key concepts, an overview of the research design and methods, ethical considerations and the organization of the chapters. Chapter two will describe in detail the research design and methods of the study.
CHAPTER 2

RESEARCH DESIGN AND METHODS

2.1 INTRODUCTION

The aim of this chapter is to describe the research design and methods of this study. The components of the research strategy will be described first, followed by a description of the reasoning strategies used in this study. As this study will be conducted in two phases, whereby phase one consists of two stages, the methods used in each stage of phase one and those in phase two will be described. Lastly a description of trustworthiness will be given.

2.2 THE DESIGN

The design of this study is qualitative, exploratory, descriptive and contextual in nature,(Mouton 1996: 102-107). This design is found to be appropriate to explore and describe the obstacles in the facilitation of critical thinking in nursing education and how these could be overcome. Based on the perceptions of nurse educators and student nurses of what these obstacles are and how they can be overcome, strategies to overcome obstacles in the facilitation of critical thinking will be described with the use of existing frameworks and subject related literature. The research strategies which are qualitative, exploratory, descriptive and contextual will be described within the context of this study, followed by a description of reasoning strategies.

2.2.1 RESEARCH STRATEGIES

The research strategies for this study are described under the following headings: qualitative, exploratory, descriptive and contextual. Reasoning
strategies which are, analysis, synthesis, deductive reasoning, inductive reasoning, bracketing and inference will be described as well.

2.2.1.1 Qualitative

The qualitative nature of this study is a means by which the depth, richness and complexity inherent, (Burns & Grove 1999; 339), of obstacles in the facilitation of critical thinking in nursing education will be explored. The insight gained from this exploration will provide a database from which strategies to overcome these obstacles will be described. The researcher is exploring human perceptions which are qualitative in nature, hence this study is qualitative.

2.2.1.2 Exploratory

The design of this study is exploratory because the empirical data will be explored through focus group interviews. The perceptions of the nurse educators and student nurses with regards to the obstacles in the facilitation of critical thinking in nursing education will be explored in phase one of the study. The insight gained during this exploration will aid the researcher to break new ground,(Mouton 1996: 102) with respect to the facilitation of critical thinking. An extensive exploration of subject related literature will be done during conceptualization, in phase two of the study.

2.2.1.3 Descriptive

According to Burns and Grove, (2001: 30) descriptive research is a way of discovering new meaning, describing what exists and provide a knowledge base. Therefore this study is descriptive because the explored the perceptions during the perceptual surveys in phase one of the obstacles in the facilitation of critical thinking and how these obstacles could be overcome will be described. A description during conceptualization forms an important part of this study as
relational statements will be deductively analyzed and stated. Based on the
described perceptions of the participants, and a literature control, strategies on
how to overcome these obstacles will also be described.

2.2.1.3 Contextual

Phenomena are studied because of their intrinsic and immediate contextual
significance, (Mouton 1996: 133). This study is therefore contextually significant
in this era of transformation in nursing education, the general education in South
Africa and a global outcry for critical thinkers. The researcher has an inherent
interest in this study because a learning/teaching environment that is free of
obstacles in the facilitation of critical thinking in nursing education is of utmost
necessity. Critical thinking is the aim of an educational program that is outcomes
and community based and the described strategies will provide the nurse
educators and student nurses with knowledge, skills and attitudes to overcome
the obstacles in the facilitation of critical thinking.

2.2.2 REASONING STRATEGIES

The following reasoning strategies that will be used to analyze and organize data
are: analysis, synthesis, inductive reasoning, deductive reasoning, bracketing
and inference will be described.

2.2.2.1 Analysis

Analysis involves taking a complex whole and resolving it into its parts, (De Vos
1998: 336). Through analysis the researcher will take data apart and identify the
relationships between constant factors that are relevant to the obstacles in the
facilitation of critical thinking. Analysis will be used inductively during phase one
of the study to deconstruct ideas, thoughts and feelings brought forward by the
participants during the perceptual surveys. Analysis will be used again
deductively during conceptualization in phase two of the study, to describe strategies to overcome obstacles in the facilitation of critical thinking in nursing education.

2.2.2.2 Synthesis

Synthesis involves interpretation or explanation of the data. It is the process of building up separate ideas into a connective whole, (De Vos 1998: 336). Therefore in this study synthesis will be used to build a connected whole of the ideas, thoughts and feelings deconstructed from the perceptual surveys of the participants.

2.2.2.3 Inductive Reasoning

Inductive argument is when the premises of an argument provides only partial support for the conclusion, (Rossouw 2000: 33). The research design is qualitative, exploratory and descriptive, which means the empirical data is collected inductively. More evidence will be added during discourse and deliberation in the focus group interviews till data is saturated. The data generated during the focus group interviews will be analyzed and interpreted through inductive abstraction and generalization.

2.2.2.4 Deductive Reasoning

Deductive reasoning is used when the researcher wishes to depart from or test existing frameworks, (Mouton 1996: 80). In this study deductive reasoning will be used during conceptualization in phase two of the study as existing frameworks and subject related literature will be used to describe strategies to overcome obstacles in the facilitation of critical thinking in nursing education.
2.2.2.5 Bracketing

The researcher will suspend what is known to her about obstacles in the facilitation of critical thinking in nursing education. All preconceived ideas and constructs, (De Vos 1998:337), will be eliminated as to enhance seeing of all facets of obstacles in the facilitation of critical thinking as perceived by the participants.

2.2.2.6 Inference

Inference refers to the process whereby premises support the conclusion based on other premises,(Mouton 1996: 71). In this study the researcher will use inference from the explored and described empirical data, existing frameworks and subject related literature to describe strategies to overcome obstacles in the facilitation of critical thinking in nursing education.

2.2.3 RESEARCH METHOD

The research method constitutes a description of the population, sample and sampling method, data collection, data analysis and trustworthiness.
2.2.3.1 PHASE 1

STAGE 1: PERCEPTIONS OF NURSE EDUCATORS WITH REGARDS TO OBSTACLES IN THE FACILITATION OF CRITICAL THINKING IN NURSING EDUCATION.

2.2.3.1.a POPULATION 1

The accessible nurse educator population is 163 educators in all three colleges,(Statistics from college Principals). These nurse educators are responsible for teaching students in the comprehensive course leading to registration as nurse (general, psychiatry, community health) and midwife.

2.2.3.1.b SAMPLE AND SAMPLING METHOD

The non-probability purposive sampling method, (Burns & Grove, 1993: 246) will be used to select the sample. A purposive sample of 7-12 nurse educators will be selected to participate in the focus group interviews in each college based on the following criteria:

- A nurse educator who holds a post basic diploma, degree or post graduate degree in nursing education.
- A nurse educator who has a teaching experience of three years and above, and is involved in teaching of students in the comprehensive course leading to registration as nurse (general, psychiatry and community health) and midwife.
These criteria are set in an effort to get nurse educators who have been teaching for a long time and will be able to impart with indepth information and rich information that will provide a valuable database from which strategies will be described. Through dialogue and discourse in depth will come forth from the nurse educators’ perceptions of obstacles in the facilitation of critical thinking in nursing education. Since data collection, data analysis and trustworthiness of stages 1 and 2 are similar strategies will be discussed simultaneously.

STAGE 2: PERCEPTIONS OF STUDENT NURSES WITH REGARDS TO OBSTACLES IN THE FACILITATION OF CRITICAL THINKING IN NURSING EDUCATION

2.2.3.1. a POPULATION 2

The accessible student nurse population consists of 323 students (Statistics from college Principals).

2.2.3.2.b SAMPLE AND SAMPLING METHOD

The non-probability purposive sampling method, (Burns & Grove 1993:246) will be used to select 7-12 student nurses to participate in the focus group interviews. Participants will be purposively selected from each college based on the following criteria:

❖ A fourth year student nurse in the course leading to registration as nurse (general, psychiatry, community health) and midwife.

This criterion is set in order to obtain a sample of student nurses senior enough in their training that they will understand the concept “critical thinking”, as a briefing session will be held with them to clarify the concept. These student nurses will be able to give a valuable input of their perceptions with regards to
obstacles in the facilitation of critical thinking in nursing education as recipients of this education and how these could be overcome.

TABLE 1: DISTRIBUTION OF THE ACCESSIBLE POPULATION

<table>
<thead>
<tr>
<th>Nurse Educators</th>
<th>Student Nurses</th>
</tr>
</thead>
<tbody>
<tr>
<td>College A</td>
<td>48</td>
</tr>
<tr>
<td>College B</td>
<td>47</td>
</tr>
</tbody>
</table>

2.2.3.3.c DATA COLLECTION

The data collection method used in both stage one and two will be focus group interviews (Morgan 1997: 6). Two separate focus group interviews will be set up for each nurse educator and student nurse sample respectively at each college.

FOCUS GROUP

Morgan, (1997: 6), defines a focus group as a research technique that collects data through group interaction on a topic determined by the researcher. It is the researcher's interest that provides the focus, whereas the data themselves comes from the group interaction. On the other hand Krueger, (1994: 6) purports that a focus group is a carefully planned discussion designed to obtain perceptions on a defined area of interest in a permissive, non threatening environment. It is conducted with seven to twelve people, facilitated by a skilled interviewer.
In this study focus group interviews will be used to collect data from nurse educators and student nurses. Two separate focus group interviews will be held in each of the three nursing colleges, to maintain homogeneity of the sample, (one for nurse educators and one for the fourth year student nurses). "Interview" signifies the presence of a trained moderator, Schrunik (in De Vos, 1998: 314), whom the researcher will use to facilitate the discussion. The discussion will be limited to the theme under investigation. The focus group interviews will enable the researcher to inductively reflect the intimate knowledge of the participants, with regards to obstacles in the facilitation of critical thinking in nursing education. Krueger’s (1994: 6-7) guidelines will be used to conduct the focus group interviews.

Two central questions for both the nurse educator and student nurse groups will be:

- What are the obstacles in the facilitation of critical thinking in nursing education?

- How can the obstacles in the facilitation of critical thinking in nursing education be overcome?

The guidelines are as follows:

**PREPARATION**

- Permission will be requested from the Gauteng Department of Health to conduct the research.

- An environment that is comfortable and conducive to discussion will be created, distractions like ringing telephones etc. will be removed. Chairs will be arranged in a circle that will facilitate face to face interaction, around a
centrally placed table. The researcher will ensure that the environment is non-intimidating or non-threatening by creating an informal atmosphere. Written permission will be requested from the participants to include them in the research. The discussions will be tape recorded with the permission of the participants.

- The researcher will be in charge of the tape recorder, with a clean cassette in place and extra ones on standby, for when there is a need. The participants will use alphabetic pseudonyms to avoid calling one another by name to ensure confidentiality and anonymity.

- To be able to run the interview smoothly both the facilitator and the participants will set ground rules. Time for the discussion will depend on saturation of data collected.

- Participants will be served with refreshments during breaks between sessions and after the meeting.

TECHNIQUES, SKILLS AND ATTITUDE OF THE FACILITATOR

- The role of the researcher will be to welcome the participants as they arrive. When all are in, the researcher will once more welcome all present and introduce the facilitator. The facilitator/interviewer is purposively selected because of his expertise in interviewing and knowledge of qualitative research method (holds a masters degree in nursing science).

- The researcher will explain the purpose of the study and hand out written consent forms to the participants to sign before the focus group interview is commenced. The researcher will give a brief overview of the study. The participants will be encouraged to ask questions so as to enhance interaction,
with regards to obstacles in the facilitation of critical thinking in nursing education.

- The central questions to the study will be given to the facilitator. The facilitator will be made aware of how important it is to obtain in depth information from the participants. During the discussions the researcher will take field notes, taking note of mostly importantly the participants' group dynamics, both verbal and non verbal cues. The researcher will control the tape recorder. It will be placed centrally on the table so as to capture every participant's voice. The researcher will also pose questions and allow discussion and dialogue to establish the depth of the obstacles in the facilitation of critical thinking as perceived by the participants.

THE ENVIRONMENTAL SETTING

- The focus group interviews will be conducted in a classroom in the identified nursing college. The researcher will ensure that there are no noises or distracting ringing telephones etc. in the vicinity. Chairs will be arranged in a circle with a centrally placed table to facilitate face-to-face interaction.

THE ROLE OF THE FACILITATOR

After laying the ground rules the facilitator will ask the central questions of the study. The facilitator will display the following attitudes during the interview: unconditional acceptance, respect, empathy, openness, sincerity and modesty. The skills that will be used by the facilitator will include an accommodating body language and obvious interest in the participants by a nod, an encouraging listening attitude and maintaining eye contact. The facilitator will probe in a friendly, reassuring and non threatening manner, so as to get in depth information. The interviewer who is skilled in interviewing will use strategies, such as establishing of rapport, active listening, smiling warmly, reflecting, responding,
nodding, silence, paraphrasing, consistency, probing, empathetic understanding and bracketing to facilitate eliciting of important themes and feelings, (Krueger 1994: 115)

The facilitator will also use his skills of group dynamics and the ability to maintain enthusiasm. He will reflect consent and feelings, relate new information to previous information and remain non judgmental throughout the interview (De Vos 1998: 820). Participation will be balanced throughout the group so that participants don’t dominate one another. The facilitator will also use group dynamics to handle distraction. An atmosphere of openness and friendliness will be maintained.

2.2.3.4.d DATA ANALYSIS

Tesch’s (in Creswell 1994: 154-155) protocol of qualitative data analysis will be used to analyze data. Tesch’s eight steps of data analysis require of the researcher to be comfortable with developing categories and codes. The process involves “segmenting” the information and developing coding categories for the interviews. An independent co-coder will be given the following data analysis protocol as adopted from Tesch’s (in Creswell 1994: 154-155) protocol:

- Get a sense of the whole by reading through all the transcriptions carefully. Perhaps jot down some ideas as they come to mind.

- Pick one interview, the most interesting, the shortest and the one on top of the pile. Go through it, ask yourself, “What is this about?” Do think about the “substance” of the information, but also its underlying meaning. Write the thoughts in the margin.
After completing this task for several informants, make a list of all topics. Cluster similar topics together. Form topics into columns that will be arranged as major topics, unique topics and leftovers.

Take a list and go back to the data. Abbreviate the topic as codes and write them next to the appropriate segments of the next text. This preliminary organization scheme is tried to see if whether new categories and codes will emerge.

Find the most descriptive wording for the topics and turn them according to the manner in which they relate to each other. Perhaps draw lines between categories to show interrelationships.

Make a final decision on the abbreviation of each category and alphabetize codes.

Assemble material belonging to each category in one place and perform a preliminary analysis.

If necessary recode the existing data.

A consensus discussion between the researcher and the independent coder will be held to verify data obtained. This will increase the trustworthiness of data analysis.

2.2.3.5.e TRUSTWORTHINESS

Lincoln and Guba’s, (1985: 316-327) strategies will be used to establish trustworthiness. These strategies are credibility, transferability, dependability and confirmability.
CREDIBILITY

The researcher will use prolonged engagement to establish rapport and trust. Sufficient time will be invested to build trust. The researcher will first deal with her own personal distortions, (Lincoln & Guba 1985 316-327). An independent co-coder will be used to verify data and play the “devil’s advocate” during data analysis. The researcher has undergone training in research methodology and is supervised by a promoter who has a doctorate in professional nursing science, and therefore can attest to the authority of the researcher.

TRANSFERABILITY

Data will be collected till it is saturated and a thick description of the design and methods will be provided. Enough data will be produced, that can be used as a database for replicating the study by prospective researchers, (Lincoln & Guba 1985: 316-327). Data from the present study is suitable to the respective nursing colleges only and cannot be transferred to other nursing colleges.

DEPENDABILITY

The research methodology of this study is extensively and fully described to ensure dependability. Different sources of data collection, (nurse educators, student nurses) are used. A literature control and an independent co-coder will be used to verify the accuracy of data analysis.

CONFIRMABILITY

An independent co-coder will be used to verify the accuracy of data analysis and consensus. Different sources will be used to collect data as well as conceptual frameworks to confirm the data. Field notes will be taken to establish reflexivity, (Lincoln & Guba 1985: 316-327).
2.2.3.1 PHASE 2

CONCEPTUALISATION

Conceptualization is the clarification and analysis of the key concepts of a study and integrating them into existing frameworks, (Mouton 1996: 109). All the key concepts of this study will be identified and defined and will be integrated into existing frameworks.

In this phase the researcher will use the information gathered in phase one of the study, together with existing conceptual frameworks and subject related literature to describe strategies to overcome obstacles in the facilitation of critical thinking in nursing education.

2.2.4 SUMMARY

In this chapter the research design is described. The researcher chose a qualitative, exploratory, descriptive and contextual approach in order to get in-depth information from the participants. In phase one of the study the perceptions of nurse educators and student nurses with regards to obstacles in the facilitation of critical thinking in nursing education will be described in stage one and two respectively. The results of phase one will be used with a literature control in phase two of the study to describe strategies to overcome obstacles in the facilitation of critical thinking. Reasoning strategies are described as well as Lincoln and Guba's (1985: 290) framework of trustworthiness, which is used in this study are described. The perceptions of the participants are described in chapter three.
CHAPTER 3

RESULTS OF THE PERCEPTUAL SURVEYS

3.1 INTRODUCTION

In this chapter the results of the perceptual surveys are discussed as described from the nurse educators and the student nurses perspectives during the focus group interviews. The purpose of this study is to explore and describe strategies to overcome obstacles in the facilitation of critical thinking in nursing education. Data obtained during the perceptual surveys of the nurse educators and student nurses will be discussed separately. The participants’ citations will be highlighted in italics in inverted commas. Conceptualization and literature control will be done in the next chapter.

PHASE 1
STAGE 1

3.2 PERCEPTIONS OF NURSE EDUCATORS WITH REGARDS TO OBSTACLES IN THE FACILITATION OF CRITICAL THINKING IN NURSING EDUCATION.

Focus group interviews were conducted separately with nurse educators and student nurses. They were asked to describe the obstacles in the facilitation of critical thinking in nursing education and how these could be overcome. Their described perceptions were in response to the following questions:

- What are the obstacles in the facilitation of critical thinking in nursing education?
- How can the obstacles in the facilitation of critical thinking in nursing education be overcome?
Analysis is based on the data collected from these groups.

The nurse educator's perceptions of the obstacles in the facilitation of critical thinking in nursing education as described during the focus group interviews are listed in table 3.1 below.

### 3.2.1 OBSTACLES

| Type of student. |
| Selection criteria |
| Socialization |
| Rote learning |
| Questioning |
| Language |
| Reading and comprehension |
| Teaching strategies |
| Educator lack of knowledge |

**TABLE : 3.1 OBSTACLES AS DESCRIBED BY EDUCATORS**

#### 3.2.1.1 Type of student

The nurse educators were of the opinion that the caliber of the students coming to nursing is not of a quality good enough to make critical thinkers. One nurse educator said, "Most of our students are from a disadvantaged educational background. They cannot think for themselves, they just sit there and wait for the tutor to dish out information to them. Another added that the students are behind educationally, they haven't got any foundation for critical thinking". This they said was because of a poor educational background.

The educational approach has been traditionally a teacher centered one whereby the educator was the one person with knowledge and the students were just 'empty vessels' that needed to be filled with information.
3.2.1.2 Selection criteria

One nurse educator asserted that, "The methods used to select students do not tell us if the student we have selected is a critical thinker or not, nor does it tell us whether they are such that we can develop their critical thinking skills". This was supported by another educator who said, "Tests like psychometric testing have been found to be unreliable". Therefore they suggested that educators should find new reliable ways of selecting students but they did not say what.

3.2.1.3 Socialization

Socialization was also seen as an obstacle in the facilitation of critical thinking. One educator said, "Most of our students were brought up by non critical thinking parents, therefore they are socialized to just follow instructions without asking question". This was found to be an inherent trait of our students and this is further reinforced by coming into contact with non critical thinking educators and trainers both in class and practically. The students get into a mode of doing things in 'robotic' manner without any questioning.

3.2.1.4 Rote learning

One educator said, "The students are passive and rote learners, they come to class expecting the educator to provide them with knowledge while they sit and do nothing. Theirs is just to memorize facts and reproduce them on paper". This is again because of poor educational preparation from school. Another educator added that, "The students see everything in isolation which is the reason why most of them are superficial learners and cannot think critically. The students are routine bound and function as if they have been programmed and it's because they are rote learner".
3.2.1.5 Questioning

The method of questioning by nurse educators was seen to be another obstacle in the facilitation of critical thinking. One educator said, “We prevent our students from developing critical thinking by constantly asking low cognitive type of questions in our formative and summative assessments”. This was disputed by another educator who said “The students are the ones who want to be kept at a low cognitive level of thinking because they become very unsettled if you start asking ‘why’ in an attempt to steer them to higher cognitive thinking”.

3.2.1.6 Language

Language was also identified as another obstacle in the facilitation of critical thinking. One educator said, “The problem could be that most of our students are second language speakers and it becomes difficult for them to critically analyze facts for themselves. Therefore they end up memorizing the facts only to reproduce them on paper, which reinforces rote learning rather than critical thinking”.

3.2.1.7 Reading and comprehension

The ability to read critically and comprehend the underlying facts in what one is reading was also seen as another obstacle in the facilitation of critical thinking. “Our students are unable to read and comprehend what they are reading and this is because they have never learnt to analyze, not even synthesize facts, they don’t think broadly ,they are very context orientated”, said one educator.
3.2.1.8 Teaching strategies

The educators were of the opinion that teaching strategies were also an obstacle in the facilitation of critical thinking. This was supported by one educator who said, "Our teaching strategies don't always facilitate critical thinking. Most of us still prefer to lecture and lecture because it does not require much creativity to prepare a lecture". Another educator added, "We lecture because our students love lectures. If you were to use a different strategy other than lecturing the students label you as not wanting to do your job".

3.2.1.9 Educator lack of knowledge

"One cannot teach critical thinking if you are not a critical thinker yourself. Some of us stopped learning when they completed their educator training", one educator said. "Now with the introduction of outcomes based education many of us are unhappy because we have to move out of our comfort zone of teacher centered education to one that is learner centered. Many of us feel threatened by these changes", another added. This was supported by another educator who said, "We as educators need to keep abreast with what is going on in nursing education and general education in general and we can only do that by being lifelong learners. The question is, are educators critical thinkers themselves"?

3.2.2. STRATEGIES AS DESCRIBED BY NURSE EDUCATORS

Strategies to overcome the obstacles in the facilitation of critical thinking in nursing education, as described by the nurse educators are listed in table 3.2 below.
3.2.2.1 Selection criteria

A better selection criteria was identified as a strategy that could be used to select students with foundational critical thinking abilities that could be developed further. One educator said, "We should do away with the traditional psychometric testing because it does not really test critical thinking or general mental abilities. We need to find selection criteria that will specifically test for foundational critical thinking that we will built on".

3.2.2.2 Conscientise students

The educators were also of the opinion that there is a need to conscientise students about the importance of critical thinking in nursing. One educator said, "We need to teach critical thinking as a subject before we can even integrate it in the program content and link it to every lesson you give". Another added that, "We need to teach them what critical thinking means and is, in relation to our practice and the importance of critical thinking in the nursing profession".

3.2.2.3 Linking content together

Linking content together when teaching was also identified as one strategy that could be used to overcome the obstacles in the facilitation of critical thinking. "Show them the interrelationship between the different aspects of the content so that they stop seeing things in isolation, because they tend to compartmentalize the content which leads to rote learning. This will help the
students to apply their knowledge and develop critical thinking skills using analytical, synthesis and evaluative thinking skills”.

3.2.2.4. Teaching strategies

Educators should move away from traditional teaching strategies that encourage rote and superficial learning. “All educators are required to go the outcomes based route, which actually discourages teacher centered teaching strategies.” One educator added that...”We need to use other methods such as debates, value clarification, reflective journals etc, as these will encourage the development of critical thinking. Another cited that, educators need to refrain from asking low cognitive type of questions and start using verbs like compare and contrast, analyze and evaluate in order to facilitate critical thinking”.

3.2.2.5 Academic support

Academic support was mentioned as another strategy that should be used to overcome obstacles in the facilitation of critical thinking. One educator said "There is a need for reading and comprehension skills programs in place to assist students to improve their language proficiency, reading and study skills because I believe its only one who can read critically that will be able to think critically, especially for our previously disadvantaged students”.

3.2.2.6 Educator lifelong learning

Lifelong learning on the part of educators was identified as one strategy to overcome some of the obstacles in the facilitation of critical thinking. “The educators also need to keep abreast with what is going on in education by becoming lifelong learners themselves”, said one educator. “This is very
important because with new developments in education we need to adapt our teaching strategies and approaches to suit and facilitate our own critical thinking as well as that of our students”, she added.

STAGE 2

3.3 PERCEPTIONS OF STUDENT NURSES WITH REGARDS TO OBSTACLES IN THE FACILITATION OF CRITICAL THINKING IN NURSING EDUCATION

3.3.1 OBSTACLES

The perceived obstacles in the facilitation of critical thinking in nursing education as described by the student nurses during the focus group interviews are listed in table 3.3 below.

<table>
<thead>
<tr>
<th>Obstacle</th>
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<tbody>
<tr>
<td>Language</td>
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<tr>
<td>Educator resistance to change</td>
</tr>
<tr>
<td>Rote learning</td>
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<tr>
<td>Gap between theory and practice</td>
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<tr>
<td>Teaching strategies</td>
</tr>
<tr>
<td>Educator attitude</td>
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<tr>
<td>Lack of student independence</td>
</tr>
<tr>
<td>Fear of challenge</td>
</tr>
<tr>
<td>Lack of facilitation of critical thinking</td>
</tr>
</tbody>
</table>

TABLE: 3.3 OBSTACLES AS DESCRIBED BY STUDENT NURSES

3.3.1.1 Language

One student said, “Language is one obstacle in the facilitation of critical thinking because most of the time during group work what I find is instead of understanding the discussion and analyzing the content critically to form an opinion of your own, you are busy trying to translate in order to get a better
understanding, this I find to be hindering critical thinking and it is because of our different languages”.

3.3.1.2 Educator resistance to change

A student mentioned that, “Nurse educators still belong to the old school of thought, they don’t want to change. They come with their old methods that they used when they started with nursing and they come and implement these methods. This stereotypes the students”. Another added that, “The clinical practitioner also minimizes our initiative and creativity because if we suggest that things be done differently, the sisters get irritated and you just get blown away and told to do as you were taught”. This student felt that this prevents them from thinking critically as people are not open to their suggestions and creativity, therefore they stop thinking about what they are doing and just follow routine.

3.3.1.3 Rote learning

“We are forced to memorize facts and rote learn because we are often told if it’s not in the book its wrong, hence we just memorize and reproduce the book”, one student said. Another student added that the learning material is structured such that it does not enhance their critical thinking because, “The questions are word for word from the book and all you do is what is in the book and put it down on paper as is, I mean where is your critical thinking there”.

Another student said, “When answering a question in class or in an exam you must answer exactly as the book says because that’s what the tutor knows, if you are to write something that is not in the book according to her you are wrong, so if you are to follow the book or procedure as is, it also
minimizes critical thinking because you end up not thinking at all. So we just memorize facts in order to pass.

3.3.1.4 Gap between theory and practice

The students asserted that there is no communication between the educators and clinical practitioners which impacts negatively on their critical thinking. One student said, "Most of the time I read my books and get an overview of things so I can apply them in practice but because of staff shortage you are not given an opportunity to integrate what you have learnt in class but you get allocated for basic nursing tasks, for example observations, there is no relevancy of practice to the learning objectives. Imagine a 4th year student doing observations, when do I get to practice problem solving and decision making?" Another student said, "The tutors don't know what is going on in practice. The way they know how things are done is according to the book, and the way things happen in practice is completely different. Your registered nurse teaches you in one way and the tutor will come and tell you it is wrong, where is the correlation? You end up being confused.

3.3.1.5 Teaching strategies

The student felt that the teaching strategies used by the educators do not enhance their critical thinking, as cited by one student who said, the tutors should sometimes instead of lecturing come with a topic and instead of writing notes we sit and discuss and in that way you get the ideas, opinions of others and what they think. Another student added," You can't learn by cramming notes. The most memorable time in class is when we discuss and debate issues rather than listen to this stupid lecture and the end of the day you walk out of class not knowing what you have achieved by being there."
3.3.1.6 Educator attitude

According to the students educators don't prepare adequately, if they ever do before going to class and they find that to be an obstacle in the facilitation of their critical thinking. One student said, "What I find is when you ask a tutor a question she does not know what to say because she did not prepare, or she says to you ... if you don't know I also don't know. You end up saying if this is the attitude why must I bother? Why should I bother and waste my energy and time to prepare if they don't prepare".

3.3.1.7 Lack of student independence

"Tutors regard students as people who do not know anything and often don't accept the student's opinion or frame of reference when they are answering a question. They don't encourage student independence in thinking, they force their opinions on us", said one student. Another student added that, "What I find in practice is when you use your critical analysis to improvise and do things differently you are shut down without being asked what your rationale is,...it's not in the book it's wrong".

3.3.1.8 Fear of challenge

One obstacle described by the students was fear of challenge on the part of educators. Nurse educators feel threatened by students who ask questions. One student said, "In a classroom setting there must be room for challenge, tutors must be open to challenge. I for one I like asking questions, and the tutor will say I'm always distracting the class. If I ask a question and I'm told "ag" you just want to get confused". This was supported by another student who said," I was asking a question and the tutor said to me....be quiet you are irritating me, if a tutor does not know an answer she must acknowledge that she does not know and come back with an answer. And you should tell
me how are we suppose to think, let alone critically if you can’t challenge the tutor”.

3.3.1.9 Lack of facilitation of critical thinking

“How can you facilitate students critical thinking if you are not a critical thinker yourself”, asked one student. “What I find is that tutors just go according to what the book says, they don’t make an effort to analyze the content and form an opinion for themselves. They just write things on a piece of paper and stuff it in the student’s face”. Another added that, “For instance in a test they just copy a scenario from a book, which is an American written book of course and just change the words, where is critical thinking there”?

3.3.2 STRATEGIES AS DESCRIBED BY STUDENTS

The strategies to overcome the obstacles in the facilitation of critical thinking, as described by the student nurses are listed in table 3.4 below.

| ➤ Consideration for students opinion |
| ➤ Continued education for educators |
| ➤ Change of attitude |
| ➤ Educator as critical thinker |
| ➤ Teaching strategies |

TABLE: 3.4 STRATEGIES AS DESCRIBED BY STUDENTS

3.3.2.1 Consideration for student’s opinion

Consideration for student’s opinions was identified as one strategy that could be used to overcome obstacles in the facilitation of critical thinking. One student said, “I think the tutor must start taking students seriously,
because I'm not stupid and must stop making assumptions I don't know what I'm talking about when I give my opinion. I also want to give input in how and what I'm taught.

3.3.2.2 Continued education for educators

It was with great interest to note that both the students and the educators identified continued education for educators as one strategy that could be used to facilitate critical thinking. One student said "The tutors should go for some lessons at least every two years to refresh or to catch up on the new things that are happening, so that there are no clashes between what the students and the tutors know."

3.3.2.3 Change of attitude

The students were of the opinion that the educators need to change their attitude towards being challenged by students. One student said "As for the attitude of the tutors should change, they should be open to challenge by the students and stop feeling threatened by students who ask questions. Tutors must be open minded and not fear challenge."

3.3.2.4 Educator as a critical thinker

"The tutors should start practicing critical thinking themselves, because they can't teach critical thinking if they are not critical thinkers", one student said.

3.3.2.5 Teaching strategies.

The students were of the opinion that different teaching strategies could help with the facilitation of their critical thinking as asserted by one student
who said “Sometimes the tutor should just come to class with a topic and we just sit and debate the topic rather than giving a lecture”.

3.4 OBSTACLES IN THE FACILITATION OF CRITICAL THINKING IN NURSING AS DESCRIBED BY NURSE EDUCATORS AND STUDENT NURSES

The obstacles in the facilitation of critical thinking education as described by all the participants during the focus group interviews are listed in table 3.5 below.

<table>
<thead>
<tr>
<th>Obstacles</th>
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<tbody>
<tr>
<td>Educator lack of knowledge</td>
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<tr>
<td>Lack of facilitation of critical thinking.</td>
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<tr>
<td>Educator attitude.</td>
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<tr>
<td>Educator resistance to change.</td>
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<tr>
<td>Teaching strategies.</td>
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<tr>
<td>Student selection criteria.</td>
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<tr>
<td>Student educational background.</td>
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<tr>
<td>Socialization and culture.</td>
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<tr>
<td>Language</td>
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</tbody>
</table>

TABLE: 3.5 OBSTACLES AS DESCRIBED BY PARTICIPANTS

3.5 STRATEGIES TO OVERCOME OBSTACLES IN THE FACILITATION OF CRITICAL THINKING AS DESCRIBED BY ALL THE PARTICIPANTS

The strategies to overcome the obstacles in the facilitation of critical thinking in nursing education are described in table 3.6 below.

<table>
<thead>
<tr>
<th>Strategies</th>
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<tbody>
<tr>
<td>Teaching strategies</td>
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<tr>
<td>Continued education for educators</td>
</tr>
<tr>
<td>Conscientising students</td>
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<tr>
<td>Academic support</td>
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<tr>
<td>Consideration of students opinion</td>
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<tr>
<td>Change of attitude</td>
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</tbody>
</table>

TABLE: 3.6 STRATEGIES AS DESCRIBED BY PARTICIPANTS
3.6 SUMMARY

During stages 1 and 2 of Phase 1 of the study the perceptions of the nurse educators and students with regards to obstacles in the facilitation of critical thinking in nursing education were described. Strategies to overcome these obstacles were described as perceived by them. These obstacles will be conceptualised in Chapter 4.
CHAPTER 4

CONCEPTUALISATION

4.1 INTRODUCTION

The purpose of this chapter is to conceptualise the categories of obstacles in the facilitation of critical thinking as described in the empirical data and integrate them into existing conceptual frameworks. Strategies to overcome these obstacles will be derived from the conceptualisation and will be discussed in chapter 5. Conceptualisation involves embedding or incorporating one's research into the body of knowledge that is pertinent to the research problem being addressed (Mouton 1998:119). First conceptualisation of the context in which obstacles in the facilitation of critical thinking occur will be described, then the obstacles will be described as follows: educator lack of knowledge, lack of facilitation of critical thinking, educator attitude, educator resistance to change, teaching strategies, students selection criteria, students educational background, socialization and culture and language.

4.2 CONCEPTUALISATION

Conceptualisation of the context where these occur obstacles to facilitation of critical thinking will be made first, followed by categories as indicated in figure 4.1 on page 46a.
CONSTITUTION OF THE REPUBLIC OF SOUTH AFRICA

NATIONAL PLANNING FOR HIGHER EDUCATION

NURSE EDUCATOR

LACK OF FACILITATION OF CRITICAL THINKING

TEACHING STRATEGIES

EDUCATOR ATTITUDE

EDUCATOR LACK OF KNOWLEDGE

STUDENT SELECTION CRITERIA

STUDENT EDUCATIONAL BACKGROUND

SOCIALISATION AND CULTURE

LANGUAGE

SOUTH AFRICAN NURSING COUNCIL

NATIONAL QUALIFICATIONS FRAMEWORK

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

STUDENT NURSE

BATHOFELA

NURSING CONTEXT

FIGURE 4.1 OBSTACLES IN THE FACILITATION OF CRITICAL THINKING IN NURSING EDUCATION
4.2.1. Nursing context

This study takes place in the higher education and specifically within the nursing education context in specific nursing colleges in Gauteng. The purpose of the study is to formulate strategies to overcome obstacles in the facilitation of critical thinking in nursing education.

The current education system in South Africa is such that the focus is on ensuring quality so as to make sure that South African scholars are able to compete on the global milieu. The SAQA (1995) focuses on placing the learners in the center of education and training system. The South African Qualifications Authority Act, (Act No 58:1995), the National Qualification Frame work, the South African Nursing Council (1999), the Batho Pele White Paper on Transformation of Public Service Delivery document (Batho Pele Act, 1997), National Plan for Higher Education (2001), the Higher Education Act (Act No 101 of 1997) the Constitution of the Republic of South Africa, (Act 108 of 1996) and the Outcomes Based Education approach to education and training, make provision for ensuring and maintaining quality education in nursing.

The important aspect of quality assurance in education and training is "how he student learns. The teaching and evaluation should develop and enhance critical thinking skills. In order to produce practitioners of a high quality, the SANC policy on nursing programs ( 1993:6) purports that the purpose of nursing education programs should be the development of the learner's ability in relation to analytical, critical, evaluative and creative thinking and to exercise independent judgment. They envisage a professional who can think critically and facilitate the development of this skill in others as they fulfill their professional role.
According to the Batho Pele White paper (1997:13) the customer first concept implies that students as customers must have their views listened to, and taking into account the need for them to make decisions about how they should be educated. They should be treated with consideration and respect, as displayed through intellectual humility and integrity in a critical thinker. Educators must ensure that the level and quality of education is always of the highest standard and facilitative of critical thinking. The principles of Batho Pele are consultation, access to services to which they are entitled, courtesy, information, openness and transparency among others (Batho Pele 1997).

The educator needs to treat students with respect, be open-minded and acknowledge the students' input into the teaching/learning process. Information sharing with transparency, dialogue, negotiation and collaboration is of utmost importance if critical thinking is to be facilitated. These principles are in line with the principles of adult education and learning. There is evidence that employers, in addition to technical skills, want graduates who can "demonstrate" a strong array of analytical skills and a solid grounding in writing, communication, and presentation skills (National Plan for Higher Education, 2001).

On the other hand Gibbons (in the National Plan for Higher Education 2001), the skills that all graduates will require in the 21st century are computer literacy, knowledge reconfiguration skills, information management, problem solving in the context of application, team building, networking, negotiation / mediation competencies and social sensitivity. It is therefore very important that the students are equipped with these skills whereby through consultation and collaboration they are able to engage in collaborative debate with their counterparts in the world on a level of critical thinking.

According to the constitution of the Republic of South Africa (Act 108 of 1996), all citizens in the country have a right to education. These rights include access to basic education, including adult basic education. Education must be equitable,
practical and needs to redress the results of past racially discriminatory laws and practices. The outcomes based education is aimed at developing a thinking, problem-solving citizen who will be empowered to participate in the development of the country in an active and productive way. This educational approach is future- oriented, learner centered, focused on knowledge, skills and attitudes / values, characterized by high expectations of all learners and a base for further instructional decision making (Van der Horst and McDonald, 1997:7,13)

The classroom in the nursing colleges must provide a “safe” environment in which students will freely share their feelings and thoughts without being ridiculed. They need to know that they can take risks and even make mistakes (Costa, 1991:11-12). This safety allows the students to put their energy into exploration rather than spending it being over cautious and self conscious. This means that the classroom should be a non-threatening environment in which critical thinking can be enhanced. Costa (1991:11-12), further goes on to say, to be educational, the environment must be egalitarian, sororal and fraternal democratic. This kind of relationship implies a teacher - student interaction of a dialogical nature and student empowerment with shared control of the learning process. It is therefore imperative for educators to start implementing teaching and evaluation strategies that will facilitate critical thinking skills in students. Educators should discard the belief that the use of one paradigm will answer our needs.

Bevis (1993:103), is of the opinion that behaviour modification in today's world is irrelevant, because it has failed to allow for connected learning and constructed knowledge for emancipatory education for critical thinking, and for participatory power structures. According to Clarke and Holt (2001:71), there are many factors that may contribute to the development of critical thinking ability. These include the student's disposition towards critical thinking, the methods of instruction or teaching utilized by educators contributing to programs of education and also the inclusion of specific reflection or philosophy, which are actively
designed to develop the critical thinking ability in students. The American Philosophical Society (1990), is of the view that a critical thinker is one who is habitually inquisitive, open-minded, flexible, fair-minded in evaluation, honest in facing personal biases, prudent in making judgments, willing to reconsider, clear about issues, orderly in complex matters, diligent in seeking relevant information, reasonable in the selection of criteria, focused in inquiry and persistent in seeking results as precise as the subject and the circumstances of the inquiry permits.

The Outcomes Based Education and Training defines what the learner is to learn and apply the knowledge appropriately to the relevant context, the emphasis is thus placed on learning and not teaching as it used to be previously. The focus is therefore on promotion of lifelong learning, as what is important is what the learner knows, understands and can do. The epistemological and ontological dimensions are of importance as knowledge, skills and values gained should be applied for their relevance in the real world of people, to solve real practical problems and to improve the quality of life of all citizens on South Africa (Department of Education, 1996:15). The nursing education system as a component of the general education system of the country has an obligation of upholding the ideal of producing critical thinkers, who will be able to function effectively and efficiently in practice.

Chenoweth (1998: 281) asserts that an essential feature of the professional nurse is the expectation of being able to make discretionary judgments autonomously. Such judgment marks the practice of a well educated person. Therefore faculties of nursing have a mandate to support a learning environment that encourages the intellectual development of students. This is supported by Siegel (in Costa 1991:45), who is of the opinion that the quality of a critical thinker can only be acquired through skilled facilitation and positive learning opportunities. The aim of nursing education should not be to transform students ideas characters, ways of being and thought processes, but it should be to encourage autonomy in making important decisions, to listen to and to seek
understanding of why things exist and happen. This can only happen if educators regularly engage in critical thinking and teach their students to think critically.

Therefore nursing colleges have and obligation of producing practitioners who have critical thinking skills. This objective can only be achieved by exploring teaching/learning strategies and adopting those that facilitate critical thinking. This is the reason why the researcher engages in this study to formulate strategies to overcome obstacles in the facilitation of critical thinking in nursing education.

4.3 OBSTACLES IN THE FACILITATION OF CRITICAL THINKING IN NURSING EDUCATION.

4.3.1 Educator lack of knowledge

It has become a known fact that to be the most effective teacher, one must know the subject being taught. This was asserted by one student who said, "Tutors need to go for regular update courses on what is happening in education at least every year so that there are no clashes between what they teach and what the students know".

In teaching, the teacher should know the subject matter well in order to teach effectively. Beyer (1987: 252-258) assert that in teaching of thinking the subject consists of the skills and strategies that constitute thinking, of knowledge related to these operations, and of dispositions that direct and support thinking. Teachers should know in some detail the various features of these dimensions of thinking. Not knowing what it is that one is teaching greatly handicaps both teaching and learning. On the other hand Webster (1997: 184-187) believes that a teacher has to know their subject thoroughly. The teacher should not assume that students are to know as much as they do by the end of the course. Rather
than seeking to pour all you know into your students' heads, it is advisable to first cultivate their desire to know your subject as well as you do. The teacher should even before teaching critical thinking, understand the conceptual, strategic, epistemological, and philosophical-educational ramifications of critical thinking. It is up to teachers to grasp the dimension of critical thinking, through reading as well as participating in seminars, workshops, and conferences and introduce them both to colleagues and students.

Costa (1991: 47-43) asserts that knowledge about thinking is vast, complex, uncertain and incomplete. In a school that is the home of the mind the inhabitants continually expand their knowledge base, gaining more content, learning more about learning and thinking. The teachers increasingly strive to invest thoughtful learning, craftsmanship, meta-cognition and rigor into the curriculum and instruction. Webster (1997: 184-187) is of the opinion that the teachers should move their courses and subjects away from the principles of the educational model into a conception of education as perceptual and disciplined cultivation of the mind. The construction of lesson plans and courses should be within a goal of improving coverage through an understanding of basic concepts and the inferential processes underlying problem solving. The teacher should regard the student as the potential or future teachers of their subjects. They are given opportunity to teach the teacher and other students, because we learn better when we teach others.

On the other hand Mellish (1998: 72-80) is of the view that the educator must have knowledge and skills that the students do not have. Educators must know and be up-to-date with the subject matter that they are expected to teach. Knowledge of one field of instruction is not adequate, one need knowledge of related fields as well and what is called 'world knowledge' so as to be able to relate what is being taught to the world around. The nurse educator needs to read widely, keep abreast of developments and be a continuous learner for the rest of one's professional life. There is no way that educators can be content with
the knowledge they acquired during their training and do nothing to improve
themselves. The nursing profession as well as nursing education is dynamic.
There is no way that nurse educators can sit back and relax and hope for the
best, as the type of student who comes to nursing nowadays might be an
individual with a very inquiring mind, who will pose a threat to the educator with
lack of knowledge.

It can therefore be concluded that it is important for nurse educator to keep
abreast with the changes in nursing education, new innovations in medicine,
health care and nursing care so as to be to teach relevant content to the
students. This can be achieved only if educators become lifelong learners by
continuously reading research articles, attending seminars, conferences and
workshops and evaluating their teaching on an ongoing basis.

4.3.2 Lack of facilitation of critical thinking

There is a need to conscientise the students about critical thinking. Critical
thinking is one of the critical cross fields outcomes required by SAQA, (SAQA
1995), and therefore there is no way educational processes can take place
without the added effort to teach students to think critically. The participants
were of the opinion that “There is a need to teach critical thinking as a subject,
even before it can be integrated into the program content and link it to every
lesson that is given”.

Costa and Lowerey (1989:77), are of the view that if learning is to become a
reality in education, then classroom time should be devoted to teaching thinking
skills directly. Teaching the process of thinking should become the content of
instruction. Critical thinking like any other skill needs to be taught and coached.
Classroom arrangement should be such that it encourages critical thinking.
Beyer, (1987:66, 67) on the other hand, is of the opinion that the classroom
should provide a supportive environment for teaching and learning thinking.
Seating arrangement should facilitate grouping and face-to-face interaction. In a supportive classroom, students feel free to and regularly do take the initiative to risk, challenge, question, guess, invent and test. There is a typical student-to-student and student-to-subject matter interaction. The teacher creates such a classroom climate by providing thought provoking learning tasks and time for students to engage in these tasks.

On the other hand, Bevis (1993:104) believes that caring, critical thinking and praxis must be taught in a reality context, (simulated or real) and must be taught in ways that allow students to share a dialogue with one another around real issues and ideas. Information can be transmitted through lectures, reading, movies and audiovisuals, alternatively it can be gathered by the students, but knowledge cannot be transmitted, knowledge assumes understanding. Bloom (1971:177) is of the opinion that analysis presupposes that the individual not only can comprehend what has been in a document, but can also separate himself from the message to view it in terms of how it does what it does. From here the student must be steered towards the direction of synthesis and evaluation, which are the highest cognitive skills. Synthesis, which is a form of divergent thinking, represents one terminal outcome of education. At this stage the student will no longer display to the teacher the particular types of knowledge as skills and abilities he has developed, he is now producing ideas, plans and products which are uniquely his.

It is only through critical thinking that a student can achieve this educational objective. Morrison and Walsh–Free (2001:20), assert that questioning during evaluation, be it formative or summative must be in such a way that it meets the requirements of multi-logical thinking. If the answer to a test item can be found on one page of a text, it is not a critical thinking test item. This item would be knowledge base because it only requires memorization. To challenge students to think critically, test items must require the ability to relate and apply concepts to clinically oriented situations. Such multi-logical test items promote critical
thinking as well as measure the student’s ability to think within the discipline of nursing. Questions that require calculation or ask what is best, most important, first, highest priority and so forth, require a high level of discrimination to answer and therefore facilitate critical thinking.

4.3.3 Educator attitude

The participants were of the opinion that the educators should change their attitude towards challenge by students. One student said “The educators need to be open to challenge by students and stop feeling threatened by students who ask questions. They must be open minded and not fear challenge”.

According to Paul and Heaslip (1995: 41), educators often talk of giving students a body of knowledge, but to be precise knowledge cannot be “given” to another. The educators can expose their students to a body of “information”, but only they by their intellectual work of figuring out and coming to terms with the logic of that information, can transform it to knowledge. Paul and Heaslip (1995:41), added that students require assistance in sorting through information i.e. analyzing, categorizing, doubting, synthesizing and testing it to “construct” a knowledge base that can be utilized in practice. This process occurs when students are afforded opportunities to engage in dialogue about their experiences. Ford and Profetto- McGarth (1994:19-20), believe that the nature of the teacher–student relationship must be transformed from the existing power relationship of superior–to subordinate, to a more egalitarian one, which emphasizes working with the student. This will promote a peer relationship whereby the educator and student go into partnership in teaching–learning with more emphasis on student centredness co-learning. According to the constructivistic educational approach, cognitive development takes place through our conversations and interactions with a more capable member of the culture or a more able peer. Educators should determine the student’s zone of proximal development, which is the gap between what a person can do now and what the student is developmentally able
to learn under guidance, (Vygotsky, 1978:85-86). Therefore the educator should encourage dialogue and dialect in the classroom which are strategies to encourage conversation and interaction between educator and student. Peters (2000 : 167), is of the view that the constructivist teaching is mediation. A constructivist teacher works as the interface between the curriculum and the student to bring the two together in a way that is meaningful to the teacher.

Paul (1993:78-79), asserts that no one can teach critical thinking if they are not critical thinkers themselves. Therefore educators should display intellectual virtues of critical thinking, which are independence of mind, intellectual curiosity, intellectual courage, intellectual humility, intellectual empathy, intellectual integrity, intellectual perseverance, faith in reason and fair mindedness. Paul (1993:125) further adds that the students are rarely encouraged to doubt what they hear in the classroom or read in their texts. Students' personal points of view are considered largely irrelevant to education. In most classrooms, the teacher talks and the students listen. The teacher should exhibit a willingness to deal with questions to which neither they, nor the text, nor other authorities have ready answers. They should remain attentive to and honor the products of students thinking. Rather than always asking questions or telling, these teachers help students articulate and critically analyze their own ideas, hunches and hypotheses. They model and share with students how to execute appropriate thinking skills and strategies, (Beyer, 1989: 67-68).

In a study by Chenoweth (1998:289) the students felt that the educators need to employ a variety of techniques to encourage questioning, analysis and reflection. They need to model critical thinking and encourage active debate in class rather than feel challenged by questioning students. On the other hand, Bevis (1993: 104) believes the relationship between the student and the teacher should enhance interaction of a dialogical nature and student empowerment with shared control of the learning process. Chenoweth, (1998: 291), added that teacher modeling is essential so that the students can see at first hand how to mediate
the process of abstraction. The educator's role is to become a facilitator or conduit whereby the students are challenged, stimulated and supported in discovering the means to solve these questions by using a range of sources. Glen (1995:175) asserts that to educate one needs to attend to what students think and value, not because one supports but because otherwise most powerful thoughts and values they possess, affecting all others, can be left untouched.

Paul (1993: 127), is of the view that much student talk in the classroom is a sign of learning. This assists students to learn dialogical and dialectical skills. Allowing the student to question and doubt issues will deepen understanding and strengthen belief by putting it on solid ground. He further adds that prejudices, biases and misconceptions are built up through actively constructed inferences embedded in experience and students must be allowed to reason their way dialogically and dialectically out of their prejudices, biases and prejudices. Costa (1991: 207), asserts that the reflective teacher is one who continually plans, monitors and evaluates her own decision—making processes as she designs learning environments that enhance her students' abilities to deal with life's ill—structured problems.

One quality that helps us to deal productively with these kinds of situations is mindfulness. The mind-full person is one who overcomes thinking in stereotypic ruts and categories to consider alternative pathways towards dealing with this "messy" situation. Barrel in Costa (1991:207) is of the opinion that a reflective teacher possesses disposition of confidence in herself that she can solve problems, openness and ability to listen to thoughts of and feelings of others. Reflective teaching includes listening empathically, modeling thinking, collaborating with students, designing learning as problem solving and experimentation, planning, monitoring and evaluating progress and empowering students towards self direction, added Barrel (in Costa 1991:207).
According to Paul (in Costa 1991:124-128) lesson plan modeling can become a powerful tool in critical thinking staff development. It is action oriented and puts emphasis on close examination and critical assessment of what is being introduced into the classroom on a day-to-day basis. Lesson plan remodeling is also developmental in that overtime, teachers can remodel more and more lesson plans, and what has been remodeled. It can provide a means of cooperative learning for teachers. Costa (1991: 124-128) cites five basic goals that need to be aimed for:

- To help teachers to clarify the global concept
- To help teachers understand component teaching strategies that parallel the component critical thinking values, processes and skills.
- To help teachers see a variety of ways in which the various component strategies can be use in classroom settings.
- To help teachers get experience in lesson plan critique
- To help teachers get experience in lesson plan remodeling.

On the other hand Killen (in Van der Horst and McDonald 1997:118-119), is of the opinion that the fundamental notion behind all approaches to reflective teaching is that teachers should question their classroom practices, their beliefs about teaching, the contextual forces that influence what they teach and how they teach it, and the moral and ethical principles implicating their teaching. In other words reflection requires a purpose, a focus, a methodology and a supportive environment. Van der Horst and McDonald (1997:119) assert that the important outcome of reflective teaching is that these things should be thought about and talked about. If teaching is simply taken for granted it becomes mechanical and ineffective, it must be placed under continual review if it is to improve. As teachers engage in thinking about their past actions, their current
situation and their future intentions, their teaching ceases to be routine and become reflective.

Therefore it can be concluded that for nurse educators to stay afloat on the world's rapidly changing situations especially nursing education, they need to continuously update the knowledge they have by becoming life-long learners.

4.3.4 Educator resistance to change

Student nurses are adult learners and they need to be treated as such. The students said the tutors must start taking students seriously, because students are not stupid and the tutors must stop making assumptions that students don't know what they are talking about. The participants want to give input in how and what they are taught.

Peters (2000:166) is of the opinion that the constructivistic educational approach will offer a symbiotic framework with the adult learning theory, that purports self directed learning and active learning processes like metacognition, and is ideal for facilitation of critical thinking skills in students. He further goes on to say, the constructivistic learning is not knowledge written on or transplanted to a person's mind, as if the mind were a blank slate waiting to be written on as an empty gallery waiting to be filled. Educators need to realize that students come to nursing with pre-existing knowledge that they need to build on. Therefore they cannot be treated as children, and be subjected to indoctrination. Candy in Peters (2000:168), asserts that constructivism is particularly congruent with the notion of self direction in emphasizing active inquiry, independence in the learning task and individuality in constructing meaning. This is supported by Bevis (1993:344) who cites that while information may be transmitted to the learner through various learning modalities, knowledge requires the active involvement of the learner with the information. In other words information will be transformed to knowledge through the cognitive processes.
Chenoweth (1998:291), believes that critical thinking can be facilitated by giving students plenty of freedom and encouragement to explore issues on their own, encouragement and supporting peer support in learning processes and revisiting these till learning has occurred. The ideal is to afford students freedom in the classroom. There is a fundamental interest in emancipation and empowerment to engage in autonomous action arising out of authentic, critical insights into social construction of human society. The key concepts are the reciprocal relationship between knowledge and action which is mediated by critical reflection, (Conger and Mezza 1996:11) In a study by Lofmark and Wikblad (2001:45) it was found that students would like to be allowed to take responsibility to work independently and to have opportunities to practice different tasks and receive feedback. Students need to be allowed to use initiative so as to increase their self confidence.

Students should be enabled to be proactive learners, because in that way they learn more effectively, than reactive students. They are more motivated and tend to retain more information and use it better for longer periods. Students will therefore achieve ownership of learning outcomes, (Patterson, 2000:25). Myrick and Yonge (2001:462-463), are of the opinion that valuing is a characteristic that is shared by educators who are effective in enabling students to think critically, a characteristic that is reflected in their approachability, openness and respect for students perspectives. If students do not feel valued, their ability to think critically may be impaired for they need to feel comfortable to voice their opinions. The worst thing educators can do is suggest by a verbal response or some kind of body language that their comment is substandard. Such behaviour can easily threaten students' self concepts, heighten their sense of vulnerability and instantaneously render them voiceless, which inhibits them to think critically. Knowles (1980:44), on the other hand is of the opinion that adults' experiences are a rich source for learning. Adults learn more effectively through methods such as discussion and problem solving, which utilizes their experiences. Adult
learning is in relation to the specific learning needs created by the tasks and problems encountered in their everyday life. Their readiness to learn depends on what they feel they need to know. Ausubel (1968:10,108) is of the view that the educators has a role of facilitating meaningful learning through the way in which learning content is presented. To have meaningful learning the student must have an appropriate learning set, meaning the student must consciously decide to learn the material meaningfully. The learning task must have a logical meaning which can be related to the students' own cognitive structure. The students' cognitive structure must contain relevant ideas to which the new material can be connected.

One of the central lessons that people think they have learnt about previous innovations is that they failed, because they did not change behaviours, norms and beliefs of practitioners. Evans (1996: 7) is of the viewpoint that first order changes try to improve the efficiency or the effectiveness of what we are already doing. Even when these efforts are large in scope, they are usually single, incremental and isolated. They do not significantly alter the basic features of the school or the way its members perform their roles. On the other hand, second order changes are systematic in nature and aim to modify the very way an organization is put together, altering its assumptions, goals, structures, roles and norms. They require people not to just do old things slightly differently but also to change their beliefs and perceptions.

Many educators, even if they dislike the status quo at their colleges, are not hungry for change, they cling to their culture. According to Evans (1996: 46-47) culture serves a vital anxiety reducing function, and so people grasp it tightly even after it becomes dysfunctional. When held strongly a basic assumption provides security. Learning something new in this context requires us to resurrect, re-examine and revise fundamental aspects of our worldview. The concept of "unfreezing" is the most thoughtful, realistic approach of change. The
approach recognizes the tendency of people and systems to maintain homeostasis, (Evans 1996: 56).

On the other hand Quinn (1996: 6) believes that making deep change is not easy. Organizations become structured and stagnant, and so do individuals. We have knowledge, values, assumptions, rules and competencies that make us who we are. As the world around us change we lose out sense of alignment and begin to have problems. Sometimes we need to alter our fundamental assumptions, rules or paradigms and develop new theories about ourselves and our surrounding environment. Deep change in the self necessitates the courage on the part of an individual to step outside the safety of traditionally prescribed roles.

According to Beckham and Harms (in Williams et al 2002:285) change will occur when people perceive a desirable future and a practical pathway for achieving that future. Focus should be on the future rather than the present. Ambivalent and uncertainty is a feature of most educational change, where the staff seeks to attach meaning to new structures and events, often employing of reassuringly familiar reality, (Morris in Stew 1996: 587). Therefore it stands to reason that educators resist change because of fear of venturing into the "unknown", opting to stay in the comfortable and familiar "known".

Therefore it can be concluded that continued and lifelong learning for nurse educators is important. There is no doubt that open-mindedness of the educators with the modeling of critical thinking is vital for overcoming obstacles in the facilitation of critical thinking. Valuing of students, treating them as adults will improve the teacher–student relationship to one where there is co-operation and co-ownership of the learning process. It can further be concluded that to overcome obstacles in the facilitation of critical thinking, there is a need to encourage argument, dialogue and dialect in the classroom. There is also a need for the educators to embrace change and be agents of change themselves.
4.3.5 Teaching strategies

The teaching strategies used by the educators in nursing education are seen to be one of the obstacles in the facilitation of critical thinking. The educator participants said "There is a need to discourage the use of teacher-centered teaching strategies'. They said, "Teaching strategies such as debate, value clarification, reflective journals and so on should be used more. The student participants see the lecture method as an obstacle. One student said, "Instead of lecturing the educator should sometimes come with a topic and instead of writing notes we sit and discuss. In that way they get the ideas and opinions of others and what they think".

According to Costa (1991:273), a teaching strategy is a sequential pattern of instructional activities that is employed overtime and is intended to achieve a desired student learning outcome. Incorporated within a teaching strategy are specific teaching skills such as questioning, communicating directions, structuring and responding to students' answers, (Bevis 1993:103). On the other hand Beyer (1987:43-44), is of the opinion that any viable thinking skill curriculum should provide instruction in the criteria by which we judge the worth, accuracy and truth of our own thoughts and those of others, especially the rules of reasoning, the principles of logic and the evaluative criteria used in critical thinking. The following teaching strategies have been suggested by participants or emerged through literature.

4.3.5.1 Reflective journals

Reflection is one of the distinguishing strategies of experiential learning. During the process of reflection the student reflect on personal experiences and transformation of knowledge and meaning. Students reflect on personal experiences, discuss their thoughts with others and re-evaluate what is known
and understood. The interaction of reflection, discussion and re-evaluation ultimately leads to the transformation of knowledge into new meanings and new ideas (Fuszard 1995:9). The personal experiences, discussion with others and re-evaluation of what is know and understood are entered into a reflective journal. Reflective journal writing is one the learner centered teaching strategies, that can promote the learners' critical and reflective thinking, (Costa & Lowery 1989:90 and Chabeli 2001:269). Reflective journal is a teaching strategy whereby students write their experiences and feelings “uncensored”, in their own writing style for further reflection and analysis. This strategy is used by both the educator and student in the clinical setting to learn and assess the progress of the learner towards acquiring the skills of self directed learning, Heath (in Chabeli 2001:37). Effective reflective journal writing consists of three phases, which are critical appraisal, peer group discussion and self awareness and self evaluation, (Riley-Doucet and Wilson 1997: 965-966), as described in chapter 5 with the strategies.

4.3.5.2 Video simulation

Video simulation is an invaluable tool to address the unique and individual learning styles of students. The most important thing needed to use video as a teaching - learning strategy in nursing is creativity and a willingness to try (Fuszard, 1995:158). The nurse educator must not only recognize the need for a new approach, the educator must be able to say, “Great I’ll try it “, adds Fuszard (1995:158). It is suggested that a positive attitude and a willingness to experiment with the use of technology of video will greatly enhance not only the growth of the learner but also of the teacher. On the other hand Mellish et al (1998:191) are of the opinion that the possibilities of utilizing video in the teaching and learning process are endless. Videos may be used with great success to enhance the role of the nurse educator. Videos can be prepared to demonstrate procedures or especially complicated procedures such as strict nursing to prevent infection.
4.3.5.3 Narratives

Narrative is an ordered account of connected events. Narratives define reality for people by offering a way in which present circumstances, past experiences and future possibilities may be understood, Serloin (in Cooper 2000: 515). The construction of narratives to incorporate some element of role taking is to help students to step back from issues and to think about alternative views. It is an everyday tool that could be non-threatening and enjoyable in application (Cooper 2000:515). The production of multiple narratives framework can produce a coherent and plausible account of how and why something happened, added Cooper (2000: 515). Robinson and Hawpe( in Cooper 2000:513-518) are of the view that the narrative schema is a form of causal thinking, and developing a story out of experience in a heuristic process which provides a framework in which important information is unlikely to be left out. On the other hand Chabeli (2001: 218) is of the opinion that narratives reveal the learners thought processes, as well as what the learners view as significant because they examine their own ideas, feelings and perspectives concerning the experience.

4.3.5.4 Value clarification

Value clarification is a relatively new teaching strategy in nursing education. It is recommended for teaching ethics and decision making. The strategy attempts to make one consciously aware of the values and underlying motivations that guides one’s actions and provides opportunities for learners to clarify and defend their values through the “valuing process”, (Mellish et al, 1998:177). The valuing process as described by Rath includes

- Choosing from alternatives after thoughtful consideration of consequences of each alternative.
Prizing or cherishing and publicly affirming the choice made and acting on or doing something with the choice made.

Mellish et al (1998:177) are of the opinion that value clarification should be carried out in group sessions. A group process will provide additional opportunities to clarify one's values. The individual becomes aware of the values of others as well as learning about self with the help of the group members. Climate setting is important when a group strategy is selected so that respect for all group members is assured. Values cannot be strengthened in an atmosphere of fear and mistrust, added Mellish et al (1998:177).

4.3.5.5 Seminar

According to Mellish et al (1998: 126-127) seminar were originally used in German meaning a group of students working in a specific subject of study under a teacher. It is a method of organizing a class to allow for guided discussion of a specific topic or problem. Mellish et al (1998:126-127) further adds that the learners are allocated a subject to prepare. The presentation must be clear and concise. After presentation of all aspects of the subject, free discussion is allowed. The educator may briefly add an aspect that has been omitted, or give a different point of view, after which her role is only to keep the discussion flowing, to prevent dominance of one group by another. Mellish et al (1998: 126-127) assert that the seminar is a technique which requires a certain degree of knowledge and clinical experience, and is therefore more suited for senior students. Another method of introducing a seminar may be for one or two members to prepare a short paper for discussion. Forewarn students so that they can do background reading and formulate ideas which can contribute to subsequent discussion. Seminar gives the learners practice to express themselves, assess the thoughts of others and determine relationships between
the subject matter presented. It is a student centered teaching--learning strategy, and provides opportunities for practicing interpersonal relationship skills.

4.3.5.6 Problem based learning

Problem based learning is a process whereby a student learns by utilizing a problem as a stimulus to discover the information needed to understand the problem and hasten the solution (The WHO in Mellish et al 1998:99-100). The educator needs to put in a lot of time in planning and preparation of material, to be able to provide the right guideline for the students in the use of this strategy. Mellish et al (1998: 99-100), cited that the problem based learning may be difficult for some students at the beginning, but as students begin to accept their responsibility it helps them organise their learning toward being life long learners. This strategy focuses not only on the content but also on the process of learning. It is student centered and students have to actively participate. It encourages multidisciplinary learning. Fuszard (1995: 28) asserts that the problem-based teaching strategy is designed for teaching clinical problem solving. It presents the students with real-life problems, even before they necessarily have acquired all the principles and concepts needed to resolve the problem. The result in this learning methodology is that students can use it independently, at their own pace, and that not only it emulate real-life problems, but it develop the skills of inquiry and critical thinking. Woods (1994: 2-4) asserts that problem-based learning uses a posed problem to drive the learning process. Therefore in problem-based learning the process begins with a real life problem that could be solved using the critical thinking process.

4.3.5.7 Debate

Debate is a "systematic contest of speakers in which two points of view of a proposition are advanced with proof". Debate provides opportunity for students to analyze objectively an issue or problem in depth and to reach an informed,
unbiased conclusion or resolution. Debate enables students to participate actively in a meaningful communication exercise (Fuszard 1995: 74-77). The purpose of debate is for the learner to go beyond merely identifying an issue. Learners must analyze the issue: What are its key elements? What historical precedents have contributed to the issue? What is the future of the issue? Analysis on this level leads to powerful leaning calling for the use of reasoning and other forms of higher order thinking (Fuszard 1995: 74-100). The strategy should be employed in courses that centers around issues or topics that raise debatable questions. Fuszard (1995: 74-100) further adds that the strategy can be used to facilitate students ability to implement thinking skills, systematically critique issues and arrive at salient points, and demonstrate more professional development related to group process.

The learning goals for the debate strategy include improving oral communication and library skills, structuring and presenting an argument, and exercising analytical skills. The strategy can be used with all levels or types of learners because the learning goals of debate are suitable for all groups. The educator should provide enough freedom to reach the learning goals independently. The students should be given enough structure or direction to help them plan and organize their work, but also should understand the responsibility they must take for researching debate positions, analyzing key issues and practicing speaking skills. Preparation for the debate should begin early in the course, to provide adequate opportunity for library research and exploration of issues, (Fuszard 1998:74-100).

Debate is an effective teaching method for enhancing critical thinking and verbal communication skills. The educator needs to explain the debate process to the students and reinforce the fact that debate will be used as a learning experience and not a test. The educator must also facilitate the selection of the debate topics as well as setting the emotional climate and the educational environment for the debate (Garrett et al 1996:38). An open discussion at the end of debate
should be held so that all members of the class can have an opportunity to voice alternative views.

4.3.5.8 Portfolio assessment

A portfolio is a file or folder that contains samples of the learners work, such as themes, homework, papers, teacher's rating on the work performed, descriptions of the learners accomplishments, scores on tests, and other significant material gathered by the learner during the term, (Van der Horst and McDonald 1997:193) Portfolios provide evidence of a learners knowledge, skills, attitudes and academic development that affords the teacher opportunities for formative and summative evaluation. It also offers a concrete way for learners to evaluate their work. Portfolios have the potential to enhance both teaching and learning because they engage the teacher and the learners in reflective self evaluation. Portfolios, according to Boschee and Baran (in Van der Horst and McDonald 1997:194) assess the learners' accomplishment of learning outcomes and the quality of the learners sustained work. They allow the learners to turn their own special interests and abilities into a show case. They provide a collection of work learners may use in the future for college or university application and job seeking and documenting improvement of learners work.

4.3.5.9 Poster presentation

Posters are large notices designed to convey information in such a manner that they attract attention. They should be vivid and attractive to look at and should convey the message clearly. Making posters for a specific purpose can be used as a teaching/learning activity for a group of students (Mellish et al 1998:195). The finished poster can serve as an instructional instrument on its own, but the potential for learning which is presented when students construct posters themselves is unlimited. Posters present the students with a challenge to plan, design, write draw and display, which offers them an opportunity to learn a great
deal more about the subject in the process, to pick out salient points and develop creativity, Mellish et al (1998: 195-196) added. The aim of a poster is to draw attention, elicit interest and create a generally enjoyable learning environment. It motivates the learner and assists the unlocking of the content. A poster should be aesthetically inviting and instructive, Van Der Merwe (in Chabeli 2002: 21)

4.3.5.10 Nursing process

The nursing process is a series of sequential actions that the nurse employs in carrying out her caring function. The dimensions included in the nursing process are assessment, planning, implementation, evaluation and record-keeping, (Mellish et al 1998: 166-167). According to Lewis' and Collier's (1992: 19) opinion the learner is expected to have sufficient domain-specific knowledge and intellectually have interpersonal and technical skills to be able to execute the nursing process efficiently, history–taking skills, health assessment, analytical, diagnostic, decision-making and problem solving, advocacy, counseling and referral, teaching and therapeutic, research and recording skills.

The use of the nursing process as a learning-teaching strategy promotes flexibility, critical and independent thinking, and guides nurses to take deliberate steps to avoid omissions and premature conclusions. Its humanistic philosophy promotes a caring attitude and helps identify unique problems, realistic goals, and individualized interventions that are likely to get results (Alfaro-LeFerve 1994: 11). On the other hand Fuszard (1995: 269-227) believes the nursing process is a tool to assist students to organise their thoughts and communicate them to others. It helps the students develop critical thinking skills by assessing the patient, gather information from patient and literature, select relevant points, relate all of this information to the patient's condition and care , establish priorities, seek relationships among information and build on previous knowledge.

Therefore it can be concluded that educators should move away from the traditional lecture teaching strategy, to minimize teacher dependence of students
and begin to use teaching strategies like reflective journal writing, video simulation, narratives, value clarification seminar, problem based learning, debate, portfolio assessment, poster presentation and the nursing process to facilitate critical thinking and students independence.

### 4.3.6 Students selection criteria

The selection of students is an obstacle to facilitation of critical thinking because the type of students that are selected do not have the foundational basis of critical thinking. This makes it difficult to facilitate and develop critical thinking in them. One educator said, "We should do away with the traditional psychometric testing because it does not really test critical thinking or either general mental abilities. There is a need to find selection criteria that will specifically test for foundational critical thinking that we can build on".

Mellish et al (1998:296-297) asserts that where public moneys are expended on nursing education, the public has a right to expect responsible use to be made of such money. To counteract attrition rate among student nurses, careful selection is essential. Mellish et al (1998:296-297) further add on that so far the determination of valid criteria against which to predict success in the nursing career has eluded researchers. Rothenburg (in Mellish et al 1998:296-297) cited that psychological tests was one of the influential and in some instances, crucial criteria in selecting candidates for schools and colleges of nursing. They have long been used, and during the last two decades have been discussed in literature. Generally it can be concluded that psychological tests.

- Do not predict success in nursing
- Do not predict success in practice, and
- May predict success in theory
Other criteria that may have been suggested include:

- Entrance examinations, letters of recommendation, parents and siblings in a health profession, previous interest and participation in the activities of organizations such as Red Cross and St John’s Ambulance. Participation in team activities at school, demonstrations of leadership abilities at school and impressions of self confidence, pleasant personality etc on personal interview (Mellish et al 1998: 297-298). Properly constructed recommendation forms contain reports on various characteristics such as ability to work with others, ability to work hard, achievements at school in fields besides academics, willingness to take responsibility emotional ability and length of time the person completing the form has known the candidate and in what capacity.

These forms should be completed and sent directly to the nursing college and should be treated in the strictest confidence (Mellish et al 1998:297-298). Although academic performance may be a good indicator of academic ability, they reflect nothing of a prospective nursing student’s ability to work among and with people which is important in nursing. It is much easier to use these criteria for selection but it is most important to try testing other attributes, Bennet & Walcefor (in Mellish et al 1998:298). Mellish et al (1998: 298) assert that a selection interview is always subjective and the interviewer may prefer to have another person present to help conduct the interview. This is debatable but may assist in eliminating prejudice. It may be a good idea for the interviewer to have some form of questionnaire containing questions regarding interest in being a student nurse, situations in which interviewee has worked with others or has been required to co-operate with others, general interests, information already received on nursing as a career.

Mellish et al (1998: 298), believes that it is expected that a prospective nursing student could be drawn out and final selection could take place by matching interview against the, health reports, academic achievement and results sent back from the recommendation / report form sent to teachers, the results of the
aptitude and other tests and the outcome of the interviews. Selection procedures should be reviewed constantly against the success rate of student selected, the attrition rate and the reasons for attrition and refined accordingly (Mellish et al 1998: 297-299) Poor selection is not the only reason for student wastage. Unsympathetic handling of the late adolescent and lack of understanding on the part of members in the teaching staff; as well as registered nurses in the practical or clinical sphere, can do untold harm. A poor role model can put off young, idealistic nurses, while lack of proper orientation to expected duties and behaviour can also play a part.

According to the National Qualifications Framework (SAQA 1995), to recruit candidates into an education system and maintain quality there are principles that must be observed. The principles include relevancy, accessibility, progression, portability, recognition of prior learning and guidance for learners. The prospective learner must be guided carefully with regard to what the nursing profession is, what progression is there when one is in the profession and that credits are portable and can be carried as one progresses in the profession. The learners should be made aware of systems in place to establish and recognize prior learning and assistance should be given to learners to understand and make decisions about entry into the nursing education and progression through it, so as to enable them to make informed choices about nursing as a career.

It is crucial to equip students with the skills and qualities, critical thinking among them, required for participation as citizens in a democratic society and as workers and professionals in the economy, (National Plan for Higher Education 2001). This calls for careful selection of student nurses in whom educators will be able to develop and facilitate critical thinking. To ensure an adequate supply of high-level of nurse human resources who are critical thinkers, for social and economic development the matured learner must be targeted (National Plan for Higher Education 2001). Careful consideration of school subjects like mathematics, science and biology is vital, because they form a foundational basis of critical thinking in the students.
Therefore it can be concluded that the selection criteria for nursing students should be improved, to ensure selection of matured students with foundational critical thinking skills and embedded knowledge based on life experiences, in whom the facilitation of critical thinking will be possible.

4.3.7 Student educational background

There is a need of academic support to facilitate the students' critical thinking. One educator said, "There is a need to have a reading comprehension skill program to assist students to improve their language proficiency, reading and study skills, because the students cannot be critical thinkers if they are unable to read critically, especially the previously disadvantaged students".

Reading critically according to Feuerstein and Scholnik (1995: 215), implies, among other things being able to recognize whether the writer is being subjective and is expressing personal opinions or is being objective and using undistorted facts. Encouraging students to read critically means helping them become aware not only of the author's bias but their own. Paul (1989: 100), on the other hand is of the view that critical readers of literature approach literature as an opportunity to live within another's world or experience, to consider someone else's view of human nature, relationships and problems. This involves detaching one's self from oneself to understand the world of others.

Paul et al (1989:100) further add on to say that reading and command of writing go hand in hand. Du Rand and Viljoen (1999: 6,7) are of the opinion that remedial tutorials can be offered to students as a form of academic support. The format of the classes should be small group discussions, with problem solving as the focus. Attention is paid to study methods, communication, reading and writing skills. Du Rand and Viljoen (1999: 6,7) further added that the academic support should be contained within the curriculum for examples, reading, writing and language should be built into the curriculum. The choice of teaching strategies should be such that they enhance active learning, co-operative learning, problem
solving independence in learning, fewer stressful experiences in the teaching environment and personal contact with the educator.

Reading comprehension is generally an important skill in college and one of particular importance for student nurses as an enormous emphasis is placed on text comprehension in nursing education. In addition to texts, students can be asked to use journal articles to prepare for academic projects and client care. Meta-cognitive skills instructions can be integrated into the course orientation period or concentrated on at every course entry level, (Worrell 1990: 172).

It can therefore be concluded that taking the students through the journey of developing their critical thinking requires the necessary academic support such as tutorials, small group discussions and peer group teaching, based on the individual needs of the student.

4.3.8 Socialisation and Culture

There is a need to take the cultural backgrounds of the students into consideration as the learning and thinking of individuals is influenced by the cultural background. One educator said, “There is a need for the educators to create a cultural non-threatening environment in the classroom. For instance children are socialized not to question anything said by an adult, this hampers critical thinking. The educator should encourage cultural discourse and debate”.

Culture plays an important role since it provides the basis for language acquisition. It enhances understanding because reasoning is empowered through language and culture. Culture facilitates comprehension for it the basis for language formation (Chabeli 2001: 215). Culture can either facilitate or hinder the thinking process since “different groups react differently to group interaction. They may not respect or tolerate one another readily. Therefore it is essential for the educator to know the learners’ cultural backgrounds and mix them accordingly to facilitate co-operative learning, added Chabeli (2001: 215)
Coutts, Biehler and Snowman (in Chabeli 2001: 215) suggest strategies for a social approach to facilitate co-operative learning and critical thinking. The educator need to identify the different cultural backgrounds of learners to be able to promote inter-racial socialization, with the greater possibility of empathy and understanding being developed between learners from different social backgrounds. The learners should be encouraged to help one another and the use of peer-tutoring, where a more able capable learner instructs the others throughout an activity is beneficial. Monitoring is used to keep control and regulate group activity, and unstructured tutoring can be used only when the need arises. Collaborative learning should be balanced with individual learning and issues of racism should be debated and discussed at meetings so that experiences and strategies can be shared. The educators should check their own non-verbal behaviour, name calling, insulting behaviour or physical threats should be challenged immediately.

According to Cumming (1994:287) a person’s access to oral and literate styles of discourse varies within a culture among individuals, developmentally and socially. The learning of such explicit impersonal styles in a second language is presumable enhanced for those learners whose first language competence already includes communicative strategies associated with literate styles, such as de-contextualization of information, precision in usage and lack of interpersonal involvement in discourse. Orality–literacy studies with application to second language acquisition is that of primacy ascribed to speech and interaction in oral cultures. Worrell (1990: 172) on the other hand is of the opinion that reading comprehension is generally an important and skill in college and one of particular importance for student nurses as an enormous emphasis is placed on text comprehension in nursing education. In addition to texts, students can be asked to use journal articles to prepare for academic projects and client care. Meta-cognitive skills instructions can be integrated into the course orientation period or concentrated on at every course entry level.
Feuerstein and Schcolnik (1995:215) are of the opinion that reading critically implies, among other things being able to recognize whether the writer is being subjective and expressing personal opinions, or being objective and using undistorted facts. Encouraging students to read critically means helping them to become aware not only of the author’s bias but of their own. Paul (1989:100) on the other hand is of the view that critical readers of literature approach literature as an opportunity to live within another’s world or experience, to consider someone else’s view of human nature, relationships and problems. Paul et al (1989:100) further asserts that reading and the command of writing go hand in hand.

According to Feuerstein and Schcolnik (1995:15-22) are of the view that teaching reading is a complex undertaking. A reading comprehension lesson may use either a text centred or strategy centred approach. The reading lesson can be divided into three main components; pre reading activities, while reading activities and post reading activities. Current research into reading process demonstrates clearly that reading just because “the teacher said so” does not produce the proper expectations and pre knowledge that are necessary for comprehension.

The teacher should induce a proper mindset in learners, introduce the theme, activates previous knowledge and motivate the learner before reading can begin. The components include pre reading activities which include prediction, skimming text exploration and activation of prior learning. The second component is while reading activities which include making prediction, revising prediction, scanning information, locating misplaced information, identify reasons and results in cause effect, noting text organization, locating markers that signal sequence, comparison, contrast, identifying main ideas, locating main ideas and supporting details, locating examples that illustrate generalisations, identify definitions, explaining or interpreting ideas, role playing or discussing ideas or characters, and recapturing what the reader knows. The third component is post
reading activities includes "in the text" designed to ensure students understanding and factual information, "between the lines" to ensure students are able to make inferences and understand implicit information, "beyond the text" which involves transferring and integrating information to other context, "text evaluation" to encourage students to go beyond the text, and consolidation and application activities which include summarizing main points and ideas, summary close activities and text mapping (Feuerstein and Schcolnik 1995: 15-22)

Therefore it can be concluded that to develop critical thinking in students, educators must begin with acknowledging the different cultural backgrounds of their students, and encourage culture-sharing. This will assist them with developing critical reading skills in students as language development has a cultural origin, for if students cannot reading critical, it will be difficult to teach them critical thinking skills. This can be achieved by using cultural strategies to enhanced critical thinking.

4.3.9 Language

Language was identified as another obstacle to critical thinking. One student said, "Most of the time in group work what I find is instead of understanding the discussion and analyzing the content critically to form an opinion of you own, you are busy trying to translate in order to get a better understanding. This I find to be hindering critical thinking and it is because of our different languages".

Mellish et al (1998:299) assert that a home language different from that in which the nursing course is offered presents an obstacle in the facilitation of critical thinking Costa and Lowery (1989: 53-63) assert that if language is central to the development of an individual's cognition, there are strong implication for classroom teachers involved in developing student's intellect. It implies that if we are to successfully develop programmes and practices for teaching thinking, we must also develop a "language cognition". Teachers must learn how to embed in
their everyday classroom language opportunities for students to hear cognitive terminology and be presented with day to day challenges to think. Similarly the students must understand the language of thinking in order to facilitate their own cognitive growth.

Costa and Lowery (1989: 55-63) further go on to say that because of the nature and importance of language, it is essential that teachers closely examine their classroom language to see that it encourages thinking. We need to search for opportunities to link language and thought, to redefine more precisely current terminology. On the other hand Costa and Marzano (1991:251-258) are of the opinion that language creates classroom culture, which is defined at the set of important understandings that class members share. Costa and Marzano (1991: 251-258) go on to say that teachers of admonish students to “think hard”. They sometimes criticize students for not having the inclination to think. The term think covers a range of thinking processes. Students may fail to think because the vocabulary is foreign to them or because they may not know how to perform the specific skill implied. Thus teachers should use specific cognitive terminology and show the students how to perform particular skills.

Teaching students to be alert to the cognitive process embedded in written and spoken language can help them become aware of their own language and thought. It can help them decode the syntactic, semantic and rhetorical signals found in all languages and it can help them integrate the complex interaction of language, thought and action. If language is central to the development of an individual cognition, there are strong implications for teachers involved in developing students’ intellect. Costa and Marzano (1991: 251-254) suggest thoughtful use of languages by asking critical questions, providing for specificity, developing metacognition as analyzing the logic thinking to develop students critical thinking through language. Osborn (200:12) believes that it is difficult to overstate the extent to which culture and language are intertwined. Some believe
that language determines one’s worldview whereas others believe that language transmits culture.

Therefore it can be concluded that language and especially cognitive language in the classroom plays a vital role in developing student’s critical thinking. It is thus imperative that educators start using the appropriate language that will get students thinking and above all enhancing critical thinking. Strategies as perceived by the participants are inherent in the conceptualization process.

4.4 Summary

In this chapter the obstacles in the facilitation of critical thinking in nursing education, described by the participants during the focus group interviews were described and integrated into existing knowledge bases. The main categories were drawn from the themes described from the results of the perceptual surveys in chapter three. The conceptual framework of the context and obstacles as they occur was depicted in Figure 4.1 In the next chapter the strategies to overcome obstacles in critical thinking will be formulated. Analysis and synthesis are used inductively and deductively to draw inferences to come to conclusions and describe strategies to overcome obstacles in the facilitation of critical thinking in nursing education. The evaluation of the study, conclusions, limitations and recommendations will also be described.
CHAPTER 5

STRATEGIES, EVALUATION, LIMITATIONS, RECOMMENDATIONS AND CONCLUSION

5.1 INTRODUCTION:

The purpose of this chapter is to describe the strategies to overcome obstacles in the facilitation of critical thinking in nursing education. The strategies are derived deductively and inductively and through the use of inferences from the empirical data as described by the participants.

The integration of the obstacles in the facilitation of critical thinking as described by the participants, into existing conceptual frameworks formed the basis from which these strategies are derived. Following will be a table of strategies to overcome obstacles in the facilitation of critical thinking. The study will also be evaluated to ascertain whether the study has addressed the problem statement, the purpose and objectives of the research. The limitations as well as recommendations will also be discussed and a conclusion made in this chapter.
### TABLE 5.2  
STRATEGIES TO OVERCOME OBSTACLES IN THE FACILITATION OF CRITICAL THINKING IN NURSING EDUCATION

<table>
<thead>
<tr>
<th>OBSTACLES</th>
<th>STRATEGIES</th>
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<tbody>
<tr>
<td>5.2.1 Nursing Context</td>
<td>Strategy to ensure that the context is facilitative of critical thinking is as follows:</td>
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<tr>
<td>Legal and Professional boundaries</td>
<td>- Consult regularly with students on matters that concern the teaching/learning process.</td>
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<tr>
<td></td>
<td>- Be courteous and demonstrate intellectual empathy.</td>
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<td></td>
<td>- Engage in regular information sharing with students through dialogue and discourse.</td>
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<td></td>
<td>- Be open to students' suggestions and opinions by encouraging them to give input without fear of being ridiculed.</td>
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<td></td>
<td>- Share power with the students in the control of the learning process by allowing them to make decisions about how they want to learn.</td>
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<td></td>
<td>- Encourage student autonomy to enhance co-ownership and co-responsibility of the learning process.</td>
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<td></td>
<td>According to SAQA critical crossfield outcomes, Batho Pele, and SANC.</td>
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<td></td>
<td>- Teach the learner to identify and solve problems using critical and creative thinking skills.</td>
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<td>- Encourage and support the learners to work effectively with</td>
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<td>OBSTACLES</td>
<td>STRATEGIES</td>
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<tr>
<td>others as a member of a team, group, organization or community.</td>
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<tr>
<td>- Encourage the learners to manage themselves and their activities responsibly and effectively.</td>
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<tr>
<td>- Teach the learners to collect, analyze, organize and critically evaluate information.</td>
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<tr>
<td>- Ensure that the learners communicate effectively using visual, mathematical and/or language skills in the modes of oral and written presentation.</td>
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<tr>
<td>- Teach the learners to use science and technology effectively and critically, showing responsibility towards the environment and the health of others.</td>
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<tr>
<td>- Ensure that the learners understand the world as a set of related systems by recognizing that problem-solving context do not exist in isolation.</td>
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<tr>
<td>- Enable the learners to participate in communities with the necessary responsibility (at local, national and international levels).</td>
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<tr>
<td>- Enable and encourage the learners to think about and explore a variety of learning strategies for effective learning.</td>
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<tr>
<td>- Encourage the learners to be culturally and aesthetically sensitive across a range of</td>
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<td>OBSTACLES</td>
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<tr>
<td>social context, e.g. religious contexts.</td>
<td>- Encourage and enable the learners to explore educational and career opportunities in order to achieve full potential and develop entrepreneurial abilities.</td>
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<td></td>
<td>- Respect and protect the learners' dignity.</td>
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<td></td>
<td>- Allow freedom of expression, academic freedom of artistic creativity and freedom of scientific research.</td>
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<td></td>
<td>- Make education accessible through RPL and reasonably practicable.</td>
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<td></td>
<td>- Treat learners courteously and with consideration.</td>
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<td></td>
<td>- Educate learners to practice professionally with independence and autonomy in clinical decision-making, case management, community empowerment using critical thinking skills.</td>
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<td></td>
<td>- Enable and encourage the learners to adapt to change, analyze and solve problems, develop reflective thinking skills, communicate effectively, adopt an ethos of caring and have a positive attitude towards learning that will inspire them to become life-long learners.</td>
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<tr>
<td>5.2.2 Educator lack of knowledge</td>
<td>- Know your subject and the related fields as thoroughly as possible.</td>
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<tr>
<td>- Don’t assume that the students know as much as you know by the end of the course.</td>
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<tr>
<td>- Understand the conceptual strategic epistemological and philosophical-educational ramifications of critical thinking.</td>
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<tr>
<td>- Construct lesson plans and courses within a goal of improving coverage through an understanding of basic concepts and the inferential processes underlying problem-solving.</td>
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<tr>
<td>- Move your courses and subjects away from the principles of the education model into a conception of education as perpetual and disciplined cultivation of the mind.</td>
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<tr>
<td>- Grasp the dimensions of critical thinking by reading research articles as well as participation in seminars, workshops and conferences and introduce these competencies to colleagues and students.</td>
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</table>

5.2.3 Lack of critical thinking facilitation.

**To facilitate critical thinking:**

- Teach in a reality context, be it simulated or real.
- Allow students to share a dialogue with one another around real issues and ideas.
- Steer students towards higher order thinking by asking them to evaluate and synthesize information.
<table>
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<tr>
<th>OBSTACLES</th>
<th>STRATEGIES</th>
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<tbody>
<tr>
<td>- Meet the requirements of multi-logical thinking by the type of questions you ask during evaluation.</td>
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<tr>
<td>- Formulate test items that will require the demonstration of the ability to relate and apply concepts to clinically orientated situations.</td>
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<td>- Arrange group or face-to-face classroom sitting to encourage interaction.</td>
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<td>- Put teacher’s desk or work table to side or rear of classroom and use as work station rather than as bastion or pulpit.</td>
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<tr>
<td>- Give thought provoking learning tasks and allow time for students to engage in these tasks.</td>
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<tr>
<td>- Provide time for students to engage in dialogue with one another around issues and ideas.</td>
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<tr>
<td>- Assist students to sort through information, i.e. by analyzing, categorizing, doubting, synthesizing and testing it to “construct” a knowledge base that can be utilized in practice.</td>
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<tr>
<td>- Change the educator-student relationship from a superior- to subordinate one, to an egalitarian one, where there is a partnership, with educator working with the student.</td>
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5.2.4 Educator attitude
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<th>OBSTACLES</th>
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<tr>
<td>- Change teacher-centered learning to learner-centered learning.</td>
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<tr>
<td>- Determine the students “zone of proximal development”, which is a gap between what the student knows and can do, and what the student is developmentally able to do and build that by pairing the student with a more able peer during activities for guidance and support towards crossing the “zone of proximal development”.</td>
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<tr>
<td>- Act as a mediator or interface between the student and the curriculum to bring the two together meaningfully.</td>
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<tr>
<td>- Allow more conversation and interaction between weaker students with more able peers.</td>
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<tr>
<td>- Model or display virtues of critical thinking, which are:</td>
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<tr>
<td>➢ Independence of mind.</td>
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<tr>
<td>➢ Intellectual courage.</td>
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<td>➢ Intellectual humility.</td>
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<td>➢ Intellectual empathy.</td>
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<td>➢ Intellectual integrity.</td>
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<td>➢ Intellectual perseverance.</td>
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<td>➢ Faith in reason.</td>
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<tr>
<td>➢ Fair mindedness.</td>
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<tr>
<td>- Encourage students to doubt what they hear in class or read in their texts.</td>
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<td>- Allow students more talking and listen to what they say.</td>
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<tr>
<td>- Display willingness to deal with questions to which there are no ready answers in the books.</td>
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<tr>
<td>- Be open-minded and encourage challenge from students.</td>
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<tr>
<td>- Model and share with the students appropriate thinking skills and strategies.</td>
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<td>- Allow students to figure out and come to terms with what the logic of the argument is.</td>
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<td>- Help students to articulate and analyze their own ideas.</td>
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<td>- Encourage active debate in class.</td>
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<tr>
<td>- Share control of the learning process.</td>
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<td>- Give attention to what the student value and think.</td>
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<td>- Do not indoctrinate and treat students like children but allow self-direction in learning.</td>
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<tr>
<td>- Acknowledge students' pre-existing knowledge and build on it.</td>
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<tr>
<td>- Encourage active inquiry, independence in the learning task and individuality in constructing meaning.</td>
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<tr>
<td>- Allow students freedom and encourage them to explore issues.</td>
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<tr>
<td>- Encourage peer supporting in learning.</td>
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<tr>
<td>- Allow students to question and doubt issues to deepen understanding and strengthen belief by putting it on solid ground.</td>
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<tr>
<td>- Allow students to reason their way dialogically and dialectically out of their prejudices, biases and misconceptions.</td>
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<tr>
<td>- Refrain from body language or verbal comments that suggest that the students' comments are sub-standard.</td>
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<td>- Allow students to use their experiences to discuss and solve problems.</td>
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<tr>
<td>- Allow opportunity to practice different tasks and give feedback.</td>
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<tr>
<td>- Be open, approachable and respect students.</td>
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<tr>
<td>- Facilitate meaningful learning through meaningful presentation of content.</td>
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<tr>
<td>- Implement and encourage the use of adult education principles, which are:</td>
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<tr>
<td>&gt; Establish a physical and psychological climate conducive to learning. Do not always dominate students.</td>
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<tr>
<td>➢ Involve students' in indecisions about their learning. Plan content with students.</td>
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<tr>
<td>➢ Involve students in identifying own learning needs and gaps between what they know and need to know.</td>
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<tr>
<td>➢ Encourage students to formulate own learning objectives.</td>
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<tr>
<td>➢ Motivate students to identify own learning resources and find strategies to use these resources to achieve learning objectives.</td>
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<tr>
<td>➢ Support students in carrying out learning plans.</td>
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<tr>
<td>➢ Involve students in evaluation of their learning, preferably through qualitative evaluation methods.</td>
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</table>

- Continually plan, monitor and evaluate your decision-making processes as you design learning environments that enhance your student's ability to solve problems.
- Display the disposition of confidence in yourself to solve problems, openness and ability to listen to thoughts and feelings of others.
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<th>OBSTACLES</th>
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<tr>
<td>5.2.5 Educator resistance to</td>
<td>- Regularly question your classroom practices, your beliefs about teaching, the contextual forces</td>
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<tr>
<td>change</td>
<td>that influence the way you teach and how you teach it, and the moral and ethical principles implicated</td>
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<td>in your teaching.</td>
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<td></td>
<td>- Remodel your lesson plans by using the following steps:</td>
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<td>➢ Firstly clarify the global concept.</td>
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<td></td>
<td>➢ What is to think critically?</td>
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<td>➢ How is the critical thinker unlike the self-serving uncritical thinker?</td>
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<td></td>
<td>➢ Understand the component teaching strategies that parallel the component critical thinking values,</td>
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<td>processes and skills by asking yourself the following questions:</td>
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<td></td>
<td>➢ What are the basic values that critical thinking pre-supposes?</td>
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<td></td>
<td>➢ What are the macro-processes?</td>
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<td></td>
<td>➢ Why distinguish macro-processes from micro-processes?</td>
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<td></td>
<td>- Identify a variety of ways in which the various component strategies can be used in classroom setting</td>
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<td>by asking the</td>
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<tr>
<td>following questions:</td>
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<tr>
<td>➢ What do critical thinkers do and why?</td>
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<td>➢ What do they avoid doing and why?</td>
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<tr>
<td>➢ When can this aspect of critical thinking thought be fostered?</td>
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<tr>
<td>➢ What questions or activities foster it?</td>
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<tr>
<td>- Evaluate and critique your lesson plan by regularly asking yourself the following questions:</td>
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<tr>
<td>➢ What are the strengths and weaknesses of this lesson?</td>
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<tr>
<td>➢ What critical principles, concepts or strategies apply to it?</td>
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<tr>
<td>- Remodel your lesson planning by regularly asking yourself the following questions and acting on them:</td>
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<tr>
<td>➢ How can I take full advantage of the strengths of this lesson?</td>
<td></td>
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<tr>
<td>➢ How can this material best be used to foster critical insight?</td>
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<tr>
<td>➢ Which questions or activities should I drop, use, alter or expand upon?</td>
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<tr>
<td>➢ What should I add to it?</td>
<td>Do a full critique and reflection on your own or with a group.</td>
</tr>
<tr>
<td>- Do a full critique and reflection on your own or with a group.</td>
<td>Practice reflective teaching (reflection requires a purpose, a focus, a methodology and a supportive environment).</td>
</tr>
<tr>
<td>- Practice reflective teaching (reflection requires a purpose, a focus, a methodology and a supportive environment).</td>
<td>Ask yourself the following questions:</td>
</tr>
<tr>
<td>➢ What will I be reflecting on? The focus will form the purpose and will answer the question.</td>
<td>➢ How can my reflection be guided to help me achieve my desired purposes? The methodology will answer this question if suitable.</td>
</tr>
<tr>
<td>➢ How can my reflection be guided to help me achieve my desired purposes? The methodology will answer this question if suitable.</td>
<td>➢ Ensure that a supportive environment, with a caring community in which personal support is balanced with critical inquiry (including constructive critique), institutional norms of collaboration and structural arrangements that provide time and space for intensive collaboration is created.</td>
</tr>
<tr>
<td>➢ Ensure that a supportive environment, with a caring community in which personal support is balanced with critical inquiry (including constructive critique), institutional norms of collaboration and structural arrangements that provide time and space for intensive collaboration is created.</td>
<td>➢ Re-examine your motives and realign yourself.</td>
</tr>
<tr>
<td>➢ Re-examine your motives and realign yourself.</td>
<td>➢ Do personal value clarification in relation to nursing education.</td>
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<tr>
<td>- Acknowledge own weaknesses, greed, insensitivity and lack of vision.</td>
<td>- Replace pessimism with optimism.</td>
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<td></td>
<td>- Visualize your role in the facilitation of critical thinking in nursing education and improve compliance.</td>
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<td></td>
<td>- Reduce your uncertainty and feelings of insecurity and mobilize your internal energies to embrace change.</td>
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<td></td>
<td>- Focus your attention away from problems and symptoms to a consideration of what will make your facilitation skills in critical thinking of learners effective.</td>
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<td></td>
<td>- Develop a personal task aligned vision of how to facilitate critical thinking in the learners.</td>
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<td></td>
<td>- Continuously monitor yourself and strategize in response to predictable problems.</td>
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<td></td>
<td>- Actively develop new competence coherently and continuously train yourself.</td>
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<td></td>
<td>- Change not only your material and teaching techniques, but also your basic beliefs and the way you conceptualize your role in nursing education.</td>
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<tr>
<td>5.2.6 Teaching strategies</td>
<td>Reflective journal writing:</td>
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<td>Reflective journaling provides objectification and linear thinking skills as it allows students to relate to experience, which profoundly speaks to them at the moment (Baker 1996:21, Beyer 1987:66, 67). Reflective journal writing is divided into three steps (Riley-Doucet and Wilson 1997:965-966) which are:</td>
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<tr>
<td></td>
<td><strong>Step 1:</strong></td>
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<td><strong>Critical Appraisal:</strong></td>
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<td>- Give guidelines in line with the learners’ expectations.</td>
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<td></td>
<td>- Draw learners’ to the fact that they should feel free to include descriptions, feelings, emotional reactions and cathartic reflections of their experiences according to their interpretation.</td>
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<td>✓ Learners can use their own writing style.</td>
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<td>✓ There must be no refinement for academic format.</td>
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<td>✓ Learners write journal entries throughout the clinical day.</td>
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<td><strong>Step II:</strong></td>
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<tr>
<td></td>
<td><strong>Peer Group Discussion:</strong></td>
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<td></td>
<td>- Make the learners aware of what is expected in this stage, where reasoning and justification are developed.</td>
</tr>
<tr>
<td></td>
<td>- Allocate sufficient time and space conducive to brainstorming dialogue and discourse to occur and promote reflective thinking.</td>
</tr>
<tr>
<td></td>
<td>- Give rationale for the statement written as well as the content.</td>
</tr>
<tr>
<td></td>
<td>- Allow the nature of the judgment and allow learners to choose from a variety of justifiable answer or to generate their own answers.</td>
</tr>
<tr>
<td></td>
<td>- Seek more justification whenever anything seems unclear.</td>
</tr>
<tr>
<td></td>
<td>- Allow for the evaluation of the consistencies in the person's thinking across the content areas.</td>
</tr>
<tr>
<td></td>
<td>- Search throughout the given explanation sentence by sentence to identify the elements that constitute argument. Take note of signal words for conclusion like therefore and consequently.</td>
</tr>
<tr>
<td></td>
<td>- Identify how each reasoning is associated with the others and to the conclusion (inductive and deductive reasoning).</td>
</tr>
<tr>
<td>OBSTACLES</td>
<td>STRATEGIES</td>
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</tr>
<tr>
<td>- Provide a supportive climate and the will to promote interaction by:</td>
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</tr>
<tr>
<td>&gt; Being a good listener. Listen to cues that are life situations under guidance to correlate theory and practice. Observe and listen to congruency. Make effective use of silence as an opportunity to think and reflect on what is said.</td>
<td></td>
</tr>
<tr>
<td>- The facilitator should help to integrate the theoretical perspective with the experiences.</td>
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</tr>
</tbody>
</table>

**Step III**

**Self-awareness and self-evaluation**

- After the daily post-conference session, learners should complete the reflective process independently. They should document aspects of their own learning as an outcome of group discussion.

They should use references, experts and documents in the unit to analyze clinical incidents in relation to their own learning to provide higher-order reflection through self-reflection.

- Learners should use the written documents for the final evaluation and measure their progress in meeting clinical learning outcomes.
<table>
<thead>
<tr>
<th>OBSTACLES</th>
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</thead>
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<td>OBSTACLES</td>
<td>STRATEGIES</td>
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</tr>
<tr>
<td>- Feedback from the facilitator and peers should be constructive.</td>
<td></td>
</tr>
</tbody>
</table>

**VIDEO SIMULATION:**

The use of this strategy is as follows:

- Awaken the learner’s thought processes by pointing out the discrepancies between the model used for simulation and the real object.
- The model must be considered in relation to its proper surroundings.
- Stimulate the learners to make further inquiry.
- The sensory experiences should be correlated and integrated with the past, present and future. Considerations of materials presented by a particular simulation lesson.
- Give learners an opportunity to practice on realistic models.

**NARRATIVES**

Such learning must eventually be done in real life situations under guidance to correlate theory and practice opportunities to think critically (Cooper 2000:518). The strategy is implemented as follows (Chabeli: 2001).

- Consider the purpose of the narrative –must be a memorable exchange or encounter that taught you something new.
<table>
<thead>
<tr>
<th>OBSTACLES</th>
<th>STRATEGIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Keep the language simple.</td>
<td>- Identify learning outcomes and encourage learners to link the story to the learning outcomes. Each narrative must be a reflection of an experience or values.</td>
</tr>
<tr>
<td>- Identify learning outcomes and encourage learners to link the story to the learning outcomes. Each narrative must be a reflection of an experience or values.</td>
<td>- Provide an environment of mutual trust and respect for learners to be willing and eager to test their ideas and feelings and to risk self-disclosure in their narratives.</td>
</tr>
<tr>
<td>- There should be a predetermined agenda of how narratives should be structured.</td>
<td>- Narratives should be a place of “testing one’s wing”.</td>
</tr>
<tr>
<td>- Focus on analyzing events and grounding in lived experiences.</td>
<td>- Explore alternative ways of interpreting and responding to the event, including an evaluation of the feasibility and acceptance of each of the alternatives.</td>
</tr>
<tr>
<td>- Explore alternative ways of interpreting and responding to the event, including an evaluation of the feasibility and acceptance of each of the alternatives.</td>
<td>- Feedback must help the learner to focus on the reflective moment. It must help the learner derive personal meaning in the interpretation and analysis of their learning experience.</td>
</tr>
<tr>
<td>It should be supportive and encourage learners to construct knowledge actively.</td>
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</tr>
<tr>
<td><strong>OBSTACLES</strong></td>
<td><strong>STRATEGIES</strong></td>
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</tr>
<tr>
<td><strong>VALUE CLARIFICATION</strong></td>
<td></td>
</tr>
<tr>
<td>Value clarification help students understand and accommodate one another's point of view. The individual member becomes aware of one another's values as well as self with the help of others. Students also get to learn about their standpoint on issues they may be facing (Mellish et al 1998: 171, 178). The steps are as follows (Rath's Theory):</td>
<td></td>
</tr>
<tr>
<td>- Plan thoroughly and thoughtfully.</td>
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<tr>
<td>- Learning outcomes are clearly formulated.</td>
<td></td>
</tr>
<tr>
<td>- Establish a non-formal, non-threatening supportive environment.</td>
<td></td>
</tr>
<tr>
<td>- Each person's values are respected with dignity and integrity.</td>
<td></td>
</tr>
<tr>
<td>- Small groups sit around a table.</td>
<td></td>
</tr>
<tr>
<td>- Set the tone either by telling a narrative, doing poster presentation or showing a video of the selected theme.</td>
<td></td>
</tr>
<tr>
<td>- Explain the purpose of value clarification.</td>
<td></td>
</tr>
<tr>
<td>- The group sets the rules of the session.</td>
<td></td>
</tr>
<tr>
<td>- Do not allow coercion of any nature. Participation should be voluntary.</td>
<td></td>
</tr>
<tr>
<td>- Explain your own understanding</td>
<td></td>
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<tr>
<td>OBSTACLES</td>
<td>STRATEGIES</td>
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</tr>
<tr>
<td></td>
<td>of value clarification and illustrate with examples.</td>
</tr>
<tr>
<td></td>
<td>Introduce the theoretical framework of value clarification.</td>
</tr>
<tr>
<td></td>
<td>Handouts of Rath’s Theory of Valuing are given to the learners dealing with:</td>
</tr>
<tr>
<td></td>
<td>- Choosing freely from alternatives after thoughtful consideration of the consequences of each alternative. The learners can reflect on the basis of their decisions, the values they consider most important. Students should compare their rankings with those of others and discuss the similarities and differences in values that affect their decision.</td>
</tr>
<tr>
<td></td>
<td>- Prizing or cherishing the choice made, being willing to affirm the choice publicly.</td>
</tr>
<tr>
<td></td>
<td>- Students can then be assigned to compare the values they have clarified with international code of ethics.</td>
</tr>
<tr>
<td></td>
<td>- Acting on or doing something with the choice made repeatedly in some pattern of life.</td>
</tr>
<tr>
<td></td>
<td>- Students are encouraged to engage in debate and discourse based on evidence during the process of clarifying values. Respect, trust, empathy and justice should be the guiding principles.</td>
</tr>
<tr>
<td>OBSTACLES</td>
<td>STRATEGIES</td>
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<tr>
<td></td>
<td><strong>SEMINAR</strong></td>
</tr>
<tr>
<td></td>
<td>The student involvement which occurs in seminar teaching gives them practice in expressing themselves, assessing the thought of others and determining relationships between various aspects of the subject matter presented. It is student centered and gives opportunity to practice interpersonal skills.</td>
</tr>
<tr>
<td></td>
<td>- The facilitator together with the students clearly defines the theme according to the learning outcomes.</td>
</tr>
<tr>
<td></td>
<td>- The learners must have a clear understanding of what is required of them.</td>
</tr>
<tr>
<td></td>
<td>- Use small groups to encourage interaction in the form of debate, dialogue and discourse.</td>
</tr>
<tr>
<td></td>
<td>Cultural sensitivity and language style must be considered. Heterogeneous groups are preferable, but the choice lies with the learners.</td>
</tr>
<tr>
<td></td>
<td>- Accommodate assertive learning to develop skillful way of handling conflict, thus to reduce stress, anxiety in presentation and group discussion.</td>
</tr>
<tr>
<td></td>
<td>- A group leader who is strong enough to encourage equal participation in search of information and discussion is selected.</td>
</tr>
<tr>
<td></td>
<td>- Resourceful literature, Internet exploration and consulting experts will enrich the learners to</td>
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<tr>
<td>OBSTACLES</td>
<td>STRATEGIES</td>
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<tr>
<td>-----------</td>
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</tr>
<tr>
<td>engage in arguments and to justify their decisions based on evidence. Other members are expected to have read the theme and be prepared for the discussion.</td>
<td></td>
</tr>
<tr>
<td>- Encourage the group to bring up any form of aid, a model, and a poster to enhance their presentation and thus enhance a better understanding.</td>
<td></td>
</tr>
<tr>
<td>- Learners must discuss freely and except criticism positively. No domination must be allowed.</td>
<td></td>
</tr>
<tr>
<td>- Provide enough time for discussion and reflection. Allow for self-evaluation, peer evaluation and lastly comments by the facilitator.</td>
<td></td>
</tr>
</tbody>
</table>

**PROBLEM-BASED LEARNING**

Problem-based learning focuses not only on the content, but also on the process. It is student centered and students have to participate actively. It encourages multi-disciplinary learning.

The strategy is as follows:

- Give students a real world situation or simulation as a problem.

- Students commence the process of inquiry by defining the problem and generating a hypothesis.
<table>
<thead>
<tr>
<th>OBSTACLES</th>
<th>STRATEGIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Students then collect, move information/data on the problem using experts, the Internet, books, etc.</td>
<td></td>
</tr>
<tr>
<td>- Hypothesis is tested by analysis, synthesis and evaluation and making inferences.</td>
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<tr>
<td>- Integration of domain specific and related subject to make a whole.</td>
<td></td>
</tr>
<tr>
<td>- Learners generate alternatives or come up with themes and prioritize them.</td>
<td></td>
</tr>
<tr>
<td>- Consultation of subject experts, text and research articles.</td>
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<tr>
<td>- The students with the facilitator's aid make a clinical judgment</td>
<td></td>
</tr>
</tbody>
</table>

**DEBATE**

Debate facilitates students' ability to implement thinking skills, systematically critique an issue and arrive at salient points and demonstrate more professional development related to group process (Fuszard 1995:74). The strategy is implemented as follows:

- Learners form groups of four or five after choosing an area of interest.

- Formulate a topic based on learning outcomes.

- Direct learners to read resources related to the topic.
<table>
<thead>
<tr>
<th>OBSTACLES</th>
<th>STRATEGIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each group develops a reading list of significant articles related to the debate topic and circulates the list through the whole class a week before the debate.</td>
<td>Give students enough structure to help them plan and organize the debate.</td>
</tr>
<tr>
<td>Each group meets as needed to organize presentation.</td>
<td>Present the debate in any classroom setting.</td>
</tr>
<tr>
<td>Ensure the debate team can be seen and heard by the audience.</td>
<td>In a group of five, two learners present the affirmative position, the other two present the negative position and the one student is a moderator.</td>
</tr>
<tr>
<td>The moderator presents the opening remarks.</td>
<td>Following the presentations the floor is opened to all for discussion.</td>
</tr>
<tr>
<td>The questions and comments based on the presentation and readings are generated by the class.</td>
<td>The debate moderator facilitates the discussion and provides a final summary of issues and discussion.</td>
</tr>
<tr>
<td>Debate may be concluded with the development of a resolution plan. Plan incorporates ideas</td>
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<tr>
<td>OBSTACLES</td>
<td>STRATEGIES</td>
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<tr>
<td>from both positions, encourage a “win-win” negotiation.</td>
<td></td>
</tr>
<tr>
<td>- Class members not participating in the debate are asked to evaluate each presented based on a rating scale based on presentation, individual performance and group effort as reflected in effectiveness of the debate.</td>
<td></td>
</tr>
<tr>
<td>- To reinforce learning from the debate, ask students to write a formal paper on one of the professional issues discussed in the debate.</td>
<td></td>
</tr>
<tr>
<td>To evaluate the paper:</td>
<td></td>
</tr>
<tr>
<td>- Look at presentation of the issue.</td>
<td></td>
</tr>
<tr>
<td>- Argument from both sides of the issue is supported by literature.</td>
<td></td>
</tr>
<tr>
<td>- Learner position and rationale of the selected position.</td>
<td></td>
</tr>
<tr>
<td>- Students apply ideas to practice.</td>
<td></td>
</tr>
<tr>
<td>- Encourage students to use references and format.</td>
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</tbody>
</table>

PORTFOLIO ASSESSMENT

Portfolios enhance both teaching and learning because they engage the educator and learner in self-reflective evaluation. The accomplishment and alignment of curriculum, instruction and assessment that is seldom achieved with other assessment strategies, (Van der Horst and McDonald 1997:194).
<table>
<thead>
<tr>
<th>OBSTACLES</th>
<th>STRATEGIES</th>
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</thead>
<tbody>
<tr>
<td>The strategy is as follows:</td>
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</tr>
<tr>
<td>- The portfolio can be stored in a file box, notebook, or other appropriate container and should have these components:</td>
<td></td>
</tr>
<tr>
<td>➢ A creative cover sheet that reflects interests and aptitudes of the student.</td>
<td></td>
</tr>
<tr>
<td>➢ Include a table of contents of a list of portfolio items.</td>
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</tr>
<tr>
<td>- Students' written comments and reflections on the portfolio contents, including reasons why specific pieces were selected.</td>
<td></td>
</tr>
<tr>
<td>- The student assess self by assessing portfolio.</td>
<td></td>
</tr>
<tr>
<td>- Teacher does formal assessment of portfolio.</td>
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</tr>
<tr>
<td>What to include in a portfolio:</td>
<td></td>
</tr>
<tr>
<td>- Representative samples of the student's work, such as homework tasks, quizzes and tests, learning logs, written work, self-assessment tools, independent and co-operative projects, video and audio tapes of performances, laboratory experiments, drafts of assignments and completed individual and group products.</td>
<td></td>
</tr>
<tr>
<td>- Involve learners in selecting the pieces that will make up the portfolio fit criteria.</td>
<td></td>
</tr>
<tr>
<td>&quot;My most difficult work&quot;</td>
<td></td>
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<tr>
<td>&quot;My best work&quot;</td>
<td></td>
</tr>
<tr>
<td>&quot;My most improved work&quot;</td>
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<tr>
<td>OBSTACLES</td>
<td>STRATEGIES</td>
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<tr>
<td>or these three approaches to...</td>
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<tr>
<td>- Final submission should include how much they have learnt. Include information that will reflect self-reflection and self-critic.</td>
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<tr>
<td>- Learners include rationale for solution.</td>
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<tr>
<td>- Each learner writes a guide to his/her portfolio, explaining how strengths and weaknesses are reflected in the work included.</td>
<td></td>
</tr>
<tr>
<td>- Include self-critique and peer critique.</td>
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</tr>
<tr>
<td>- Portfolio reflects learner's activities in learning.</td>
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</tr>
<tr>
<td>- Selection of projects, writing, drawings, etc., that relate to the expected learning outcomes are added to the content of the portfolio.</td>
<td></td>
</tr>
<tr>
<td>- At the beginning of the year, the portfolio might hold unfinished work or &quot;problem pieces&quot;.</td>
<td></td>
</tr>
<tr>
<td>- At the end of the year, portfolio contains only what the learner is willing to make public.</td>
<td></td>
</tr>
<tr>
<td>- To show growth, learners compile a history of their progress along certain dimensions and to illustrate points of their development with specific areas of work.</td>
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<tr>
<td>OBSTACLES</td>
<td>STRATEGIES</td>
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</tr>
<tr>
<td>- Keep models of good portfolios as examples, but stress that each portfolio is an individual effort.</td>
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</tr>
<tr>
<td>- Examine learners' portfolios frequently and give constructive feedback.</td>
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</tbody>
</table>

**POSTER PRESENTATION**

Poster presentation facilitates creative, critical and reflective thinking skills (Chabeli 2002:16).

The presentation should be as follows:

**Technical Aspects:**

- The purpose of a poster presentation used as an evaluation method should be clearly explained to the students. The purpose should be directed at one specific aim.

- A poster should be clear, neat, large enough, accurate, creative, comprehensive, colourful and striking to attract the reader.

**To facilitate critical and reflective thinking:**

- First, the group members should be willing, open-minded, committed, flexible, enthusiastic, responsible and accountable for their own actions.

- The group members should have an empathetic understanding, respect and a trusting relationship.
<table>
<thead>
<tr>
<th>OBSTACLES</th>
<th>STRATEGIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>- They should diligently seek relevant information about the topic and identify the kind of evidence that would exist if the claims were true, and that should exist if the claim were untrue.</td>
<td></td>
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<tr>
<td>- They should be reasonable in selecting the significant criteria for inclusion in the poster.</td>
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<tr>
<td>- They should appreciate the process of argument-making and argument analysis.</td>
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</tr>
<tr>
<td>- They should critically analyze and interpret information through discourse and argumentation.</td>
<td></td>
</tr>
<tr>
<td>- They should distinguish the relevant from the irrelevant.</td>
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<tr>
<td>- They should evaluate the reasons for the inclusion of the content (accuracy, sufficiency and significance).</td>
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</tr>
<tr>
<td>- They should place the information on a hard-board meaningfully and attractively.</td>
<td></td>
</tr>
</tbody>
</table>

**Group work facilitates learner participation.**

- Encourage active participation of learners in sharing of ideas and thoughts through interaction.
- Encourage cooperative and collaborative learning.

**Facilitating problem-solving skills.**

- Learn to identify and recognize a problem, and clarify key
### OBSTACLES

- Prioritize facts logically and meaningfully and evaluate the outcome.
- Engage in argumentation, justify and support your views and opinions based on evidence. Justify your decisions on rational grounds.
- Take time to collect information, weigh facts and consider the matter thoroughly.
- Think rationally, purposefully and use logical reasoning in the decision-making and solving of problems.
- Use creative imagination and make inferences in order to draw conclusions as to what is to be included in the poster to make it meaningful.

**Increase the learner's independence and a sense of ownership.**

- Identify and reflect on your strengths and weaknesses.
- Defend your decisions made on the poster based on evidence.
- Acknowledge your independence and a sense of ownership in your work.

**Fair evaluation.**

- Evaluation should be objective, relevant, valid, reliable,
<table>
<thead>
<tr>
<th>OBSTACLES</th>
<th>STRATEGIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>propedious and have clearly defined criteria for evaluation.</td>
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</tr>
<tr>
<td>- Engage in self-assessment and verbalize the assessment findings to the panel of evaluators.</td>
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<tr>
<td>- Use a panel of evaluators.</td>
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</tr>
</tbody>
</table>

**Consider the student's expectations.**

- Involve the students in the decision about the planning and formulation of the learning objectives with regard to the poster presentation as an evaluation method.

- Provide explicit and descriptive guidelines to the use of a poster as an evaluation method.

- Give learners the opportunity to defend their decisions on the inclusion of the content of the poster.

- Provide the students with a good example of a poster from the previous groups.

**Encourage group activity.**

- Encourage participation by all group members.

- Every group should elect a group leader to direct the group activities.

- Allow students to choose members of the group themselves.
OBSTACLES | STRATEGIES
--- | ---
- Group members should not exceed five (5).  
- Place the emphasis on non-domination by other members of the group.  
- Encourage heterogenous groups to promote inter-racial socialization and cultural sensitivity to maximize learning.

NURSING PROCESS

The strategy is as follows (Chabeli:2001):

ASSESSMENT:
- Use sound integrated theoretical knowledge to link the data observed or obtained through an interviewer.
- Establish a favourable rapport with the client and consider the condition of the client (pain, fatigue, anxiety) before collecting data.
- Create an atmosphere of sharing based on trust, respect and empathy.
- Collective the subjective and objective data.
- An empathetic listener. Do not show signs of impatience or irritability.
- Use simple language understood by the client, and be culture sensitive to ensure absolute comprehension.
<table>
<thead>
<tr>
<th>OBSTACLES</th>
<th>STRATEGIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Provide the learner with guidance throughout the assessment phase.</td>
<td></td>
</tr>
</tbody>
</table>

**FORMULATION OF NURSING DIAGNOSIS:**

- Validate the collected information accurately with the client, family or community.

- Analyze the value of the information in order to identify evidence of the health problems.

- Compare and contrast evidence found to establish patterns links or other inter-connections to make well-reasoned decisions with regard to the nursing diagnosis.

- Re-examine the data to find additional supporting or contradicting evidence.

- Organize, cluster or synthesize similar patterns of information.

- Apply creativity and imagination when synthesizing similar patterns of information to be able to generate hypotheses that will later be tested.

- Use existing frameworks as a guide.

- Learners must justify their thinking process of how they arrived at a nursing diagnosis based on the available database.
<table>
<thead>
<tr>
<th>OBSTACLES</th>
<th>STRATEGIES</th>
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</thead>
<tbody>
<tr>
<td></td>
<td><strong>PLANNING</strong></td>
</tr>
<tr>
<td></td>
<td>- Planning must be a co-operative and collaborative exercise.</td>
</tr>
<tr>
<td></td>
<td>- A client-centered conference is advocated where the nurse, client, family or other health care providers can play a worthy role in planning for the intervention.</td>
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<tr>
<td></td>
<td>- Plan for life-threatening problems first in order of their priority, actual problems and potential problems.</td>
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<tr>
<td></td>
<td>- The client’s perception of what is important is considered first, but the nurse may have to do some educating in this regard.</td>
</tr>
<tr>
<td></td>
<td>- The setting of more specific goals by the client and the nurse is necessary for systemic implementation and evaluation of the client’s progress.</td>
</tr>
<tr>
<td></td>
<td>- Goals must be worded as expected outcomes in terms of desired, observable behaviours and specifying the data of accomplishment of the goal.</td>
</tr>
<tr>
<td></td>
<td>- Goals should be realistic, achievable, measurable, observable, client-centered, time-designated and mutually set.</td>
</tr>
<tr>
<td></td>
<td>- Plan the available human and material resources for the successful implementation of the plan. Consider the family for the feasibility of the plan.</td>
</tr>
<tr>
<td>OBSTACLES</td>
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<tr>
<td><strong>IMPLEMENTATION</strong></td>
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<tr>
<td>- To choose the appropriate method of intervention, you need sound knowledge based on good assessment, nursing based on assessment, nursing diagnosis and decision-making ability linked to previous experience.</td>
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<tr>
<td>- Base interventions on sound rationales from behavioral and physical sciences, which constitute concrete domain-specific knowledge.</td>
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<tr>
<td>- Use ingenuity, creativity and past experience to tailor a plan to meet a client's needs.</td>
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<tr>
<td>- Consider the characteristics of the nursing diagnosis.</td>
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<td>- Consider research-based interventions, the feasibility and acceptability of the intervention by the client.</td>
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<tr>
<td>- Pose thought-provoking questions at different levels of complexity to keep the learners “on their toes – all the time thinking”.</td>
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<tr>
<td>- Encourage collaborative interaction involving argumentation, justifying opinions and validating conclusions.</td>
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<tr>
<td><strong>EVALUATION</strong></td>
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<tr>
<td>- Evaluation must be made against stated criteria formulated during the planning conference</td>
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<td>OBSTACLES</td>
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<tr>
<td>by all involved in the care of a client.</td>
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<tr>
<td>- Identify behaviour that gives evidence of the stated criteria (a checklist can be used as follows):</td>
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<tr>
<td>- Was sufficient data obtained to make a meaningful nursing diagnosis?</td>
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<tr>
<td>- Was the diagnosis evaluated accurately?</td>
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<tr>
<td>- Are the expected outcomes and interventions realistic and achievable? If not, a new plan should be formulated.</td>
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<tr>
<td>- Should the plan be maintained, modified or totally revised in view of the client’s status.</td>
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<tr>
<td>- Would different method of implementation of the same plan provide better results?</td>
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<tr>
<td>- Combine the results of matching to all criteria and determine your overall assessment.</td>
<td></td>
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<tr>
<td>- If the results are not satisfactory, the reassessment, reformulation of nursing diagnosis, re-planning, re-implementation and re-evaluation become necessary.</td>
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<tr>
<td>OBSTACLES</td>
<td>STRATEGIES</td>
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<tr>
<td>- Consider open-mindedness, justice, commitment, honesty to the self, the process and the patient when you evaluate.</td>
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</table>

**RECORD-KEEPING:**

- Records must be clear, complete, detailed, presentable and unambiguous.
- They must be accurate, legible, concise and relevant.
- Records must not be "doctored" changed or re-dated.
- Records must be kept safely for a stipulated period according to the policy of the institution.

**5.2.7 Student selection criteria**

According to the NQF students are to be selected as follows:

- Ensure that the education and training is relevant to social, economic and political development and to the learners' needs.
- Make it easy for the prospective learners to come into the nursing education system at the appropriate level and to pursue relevant learning and career pathways.
- Recognize and transfer the credits and qualifications which learners gain in one learning situation or institution to nursing.
- Give credits to learning, which has already been acquired either through life experiences or non-
<table>
<thead>
<tr>
<th>OBSTACLES</th>
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<tbody>
<tr>
<td>formal training by using the principles of RPL.</td>
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<tr>
<td>- Assist learners to understand and make decisions about entry into nursing education and training systems as well as progression through it.</td>
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<tr>
<td>- Design special intelligence, aptitude and attitude tests to test various characteristics and motivation.</td>
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<tr>
<td>- Consider mathematics, physical science and biology as these subjects form a basis and facilitate critical thinking in learners.</td>
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<tr>
<td>- Consider a symbol D in the higher grade for the English language as the medium of instruction is English in nursing education.</td>
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<tr>
<td>Recommendation form:</td>
<td></td>
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<tr>
<td>The recommendation form must include reports with the following:</td>
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<tr>
<td>- The ability to work with others.</td>
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<tr>
<td>- Willingness to take responsibility.</td>
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<tr>
<td>- Emotional stability.</td>
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<tr>
<td>- Length of time the person completing the form has known the candidate and in what capacity.</td>
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<tr>
<td>Completed forms should be sent directly to college and should be treated in the strictest of confidence.</td>
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<td>OBSTACLES</td>
<td>STRATEGIES</td>
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<tr>
<td>- Interview according to college criteria.</td>
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<tr>
<td>- Psychological tests can also be used.</td>
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</table>

### 5.2.8 Student educational background

**READING AND COMPREHENSION**

The reading and comprehension strategy is as follows (Feuerstein and Schcolnik 1995: 215)

**Pre-reading activities:**

- Ask students to predict content by reading title to establish a proper mindset.
- Learners skim through passage to allow development of realistic expectations about the actual content.
- Ask students to explore the "universe" of the text.
- Activate prior knowledge by asking questions that encourage thinking about the topic.
- Questions may be used for group discussions, stimulations or role-play and brainstorming.

**While reading activities:**

Before deciding on the above activities familiarize yourself with the text by asking yourself the following questions:

- What are the most salient features?
- Does it have a lot of new vocabulary?
<table>
<thead>
<tr>
<th>OBSTACLES</th>
<th>STRATEGIES</th>
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<tbody>
<tr>
<td>- Is this reading a procedural text?</td>
<td>- Does the text present cause-effect relationships?</td>
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</table>

**Post-reading activities:**

**In text:**

- Ask students questions that focus on who, what, where, why and how to strengthen factual comprehension.

- Ask yes or no questions.

- Students may be asked to fill in tables, match text to text, etc.

- Ask learners to locate main ideas or supporting details.

**Between the lines:**

Ask the students to make inferences and understand implicit information by:

- Ask inferences question such as... “What can we understand from?”

- Prompt them to look at text from another point of view.

- Ask them to continue or to conclude text.

- Ask them to match implicit with explicit information.
<table>
<thead>
<tr>
<th>OBSTACLES</th>
<th>STRATEGIES</th>
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<tbody>
<tr>
<td>Beyond text:</td>
<td></td>
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<tr>
<td>Transfer and integrate specific information to other contexts by including:</td>
<td></td>
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<tr>
<td>- Role-playing or recreating sections of the text or the whole text.</td>
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<tr>
<td>- Select items or ideas for further study.</td>
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<tr>
<td>- Apply ideas, characters or events from text to a different setting.</td>
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<tr>
<td>- Change genre for example, from narratives to a newspaper report.</td>
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<tr>
<td>Text Evaluation:</td>
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<tr>
<td>- Ask the students to distinguish facts from opinions and note bias.</td>
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<tr>
<td>- Ask the students to identify author’s point of view.</td>
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<tr>
<td>- Ask the students to identify and note connotations.</td>
<td></td>
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<tr>
<td>- Students are asked to perform a literacy analysis.</td>
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<tr>
<td>To consolidate and apply activities:</td>
<td></td>
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<tr>
<td>- Students summarize main points and ideas.</td>
<td></td>
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<tr>
<td>- Write a summary.</td>
<td></td>
</tr>
<tr>
<td>- Students do text mapping.</td>
<td></td>
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<tr>
<td>OBSTACLES</td>
<td>STRATEGIES</td>
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<tr>
<td>In preparing your lesson, plan for reading and comprehension:</td>
<td></td>
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<tr>
<td>- Don't attempt to do too much in one lesson.</td>
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<tr>
<td>- Don't activate a variety of skills simultaneously – this leads to confusion.</td>
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</table>

**TUTORIALS**

The strategy as described by Du Rand and Viljoen (1999: 6-10) is as follows:

- Present course in the form of lectures.

- Allocate individual reading.

- Give guidelines for the study material.

- Allow opportunities to consult individually or small groups to discuss individual reading and conclusions.

- Ask questions relevant to the assigned reading.

- Students answer questions designed to show they have grasped the subject matter and will show any gaps in the subject mastery.

- Guide students and suggest further reading and other means of acquiring the relevant information.

- Discuss problems and clarify difficult points.

- Encourage participation in the
<table>
<thead>
<tr>
<th>OBSTACLES</th>
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<tr>
<td>tutorial session.</td>
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</table>

**SMALL GROUP DISCUSSION**  
The strategy is as follows (Du Rand & Viljoen 1999)

- Learners choose a leader.
- The leader poses a question clearly.
- Leader invites opinions.
- After the opinions the discussion should flow freely.
- The leader must be ready to intervene and redirect the flow of discussion.
- Leader draws reticent members into discussion.
- It is occasionally necessary for the leader to recap or summarize what has been said.

**PEER GROUP TEACHING**  
Du Rand and Viljoen (1999)

- Educator assigns simple tasks to teach in the beginning.
- Display attitude of helpfulness, guidance and constructive

- Build the students' confidence by giving praise where it is due.
- Help students to gain perspective in order to understand the relative importance of various facets of nursing actions used in patient care.
<table>
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<tr>
<th>OBSTACLES</th>
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<tr>
<td>5.2.9 Socialization and culture</td>
<td>The strategy to facilitate culture sensitive nursing education (Chabeli 2001:215) is as follows:</td>
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<tr>
<td></td>
<td>- Identify and acknowledge the different cultural backgrounds of learners.</td>
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<td></td>
<td>- Create a climate conducive to group interaction that will foster group tolerance through open-mindedness, freedom of choice, respect, trust and empathy.</td>
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<td></td>
<td>- Encourage learners to examine their own ethnic background to be share before examining the backgrounds of others. Racism has a negative impact on the self-concept and thinking patterns of ethnic groups.</td>
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<td></td>
<td>- Help learners to develop a positive attitude about their ethnic heritage.</td>
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<td></td>
<td>- Encourage peer tutoring, comparing and contrasting each other's viewpoints.</td>
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<td></td>
<td>- Provide and explicit set of guidelines that inform the facilitator and the learner of their respective roles and responsibilities in peer tutoring.</td>
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<td></td>
<td>- Provide instruction on interpersonal and communication skills to promote group dynamics.</td>
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<td>- Encourage increased ability to analyze ideas from different perspectives and acknowledge higher levels of achievement.</td>
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<td></td>
<td>- Encourage co-operative learning by forming small heterogeneous groups to forge stronger interpersonal relationships and a better understanding amongst ethnically diverse learners.</td>
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<td>- Encourage willingness to persevere and accommodate diverse cultures by using creative teaching methods which clearly defined learning outcomes.</td>
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<td></td>
<td>- Assign projects and activities that allow learners to negotiate and demonstrate culture-specific knowledge and skills. Learners must be involved in activities that explore cultural differences in perceptions, beliefs and values.</td>
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<td></td>
<td>- Monitor the learners' progress in order to identify budding culture-related problems.</td>
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<td></td>
<td>- Encourage learners to help one another.</td>
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<td></td>
<td>- Balance collaborative learning with individual learning.</td>
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<td></td>
<td>- Debate issues of racism at meetings so that experiences and strategies are shared.</td>
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<tr>
<td></td>
<td>- Check your own non-verbal behaviour. Do you concentrate on the liked race and neglect the race you don't like? Do you give</td>
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<td>OBSTACLES</td>
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<tr>
<td>more attention to one side of the class and disregard the others because of their race?</td>
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<td>- Immediately challenge name-calling, insulting behaviour or physical threats.</td>
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5.2.10 Language

The strategy to improve the learners’ language and therefore critical thinking involves:

**Speaking thoughtfully:**

To improve the students’ language for critical thinking the educator must engage the learners in thoughtful language by regularly using the following strategy:

Ask questions in this manner.

- “What do you predict will happen?”
- “How can you classify?”

Let’s analyze this problem.

- “What do you speculate would happen if?”
- What conclusions can you draw about this story?”
- What hypothesis do you have that might explain?”
- What hypothesis do you have to support?”
- “How can you apply this?”

Consciously use language to evoke thinking in learners by:
<table>
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<tr>
<td>- Use specific thinking terms rather than vague abstract terms.</td>
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<tr>
<td>- Pose questions that cause students to examine their own behaviour, search for consequences of that behaviour and choose more appropriate action for themselves.</td>
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<tr>
<td>- Give date, divulge information about yourself or send “I” messages so that students must “process” the information.</td>
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<tr>
<td>- Cause students to define their terms, become specific about their actions, make precise comparisons, and use accurate descriptions.</td>
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<tr>
<td>- Cause the covert thought processes that students are experiencing to become overt.</td>
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<tr>
<td>- Help students to study and become alert to the cues in the language structure, which evoke thought.</td>
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</table>
5.3 EVALUATION OF THE RESEARCH

5.3.1 Introduction

The purpose of this chapter is to evaluate the entire in the order to ascertain whether the objectives of the study have been achieved. The limitations and recommendations with regard to strategies that can be used to overcome obstacles in the facilitation of critical thinking in nursing education practice and research will be described.

5.3.2 Evaluation of the study

5.3.2.1 Problem statement

The South African Nursing Council (15/1999), SAQA Act (Act 59 of 1995), the National Plan for Higher Education (2001) and the Batho Pele document (1997) objective is for educators to produce practitioners with problem-solving skills, decision-making and critical thinking skill among others. There is still a problem as far as this objective is concerned. Based on observations by the researchers and literature (Botes 2000), there is a lack of critical thinkers in nursing. Nurses seldom engage in critical thinking if they ever do. The nursing process, which is supposed to enhance critical thinking is often used in a rigid and robotic manner, without any use of critical thinking in its application. There has also been an upsurge in litigation against nurses as indicated by the disciplinary cases conducted by the South African Nursing Council. This prompted the researchers to undertake a study to explore and describe the obstacles in the facilitation of critical thinking in nursing education, the purpose being to describe strategies to overcome these obstacles. To address the problem the following purpose and objectives are formulated.
5.3.2.2 Purpose

The purpose of this study is to describe strategies to overcome obstacles in the facilitation of critical thinking in nursing education. The purpose is attained through the following objectives.

- To explore and describe the perceptions of nurse educators and student nurses with regards to obstacles in the facilitation of critical thinking in nursing education.

- To explore and describe the strategies that can be used to overcome the obstacles in the facilitation of critical thinking in nursing education.

The objectives answered the following research questions:

- What are the obstacles in the facilitation of critical thinking in nursing education?

- What strategies can be used to overcome obstacles in the facilitation of critical thinking in nursing education?

5.3.3 Design:

The design of this study is qualitative, exploratory, descriptive and contextual in nature (Mouton 1996:102–107). The design was found to be appropriate to explore and describe the obstacles in the facilitation of critical thinking in nursing education. Based on the perceptions of the nurse educator and nurses of what the obstacles are, strategies to overcome these obstacles were described and integrated into existing frameworks.
5.3.2.a Phase 1

The focus of this phase was on exploration and description of the nurse educators' and student nurses' perception with regards to the obstacles in the facilitation of critical thinking and strategies that can be used to overcome these obstacles. The obstacles are listed in Chapter 3, table 3.1. The purpose of the study was achieved as the obstacles and strategies to overcome these were explored and described as well as strategies to overcome these obstacles.

Focus group interviews were conducted with nurse educators and student nurses separately. The data collection method was proved to be suitable as both groups volunteered their perceptions in a natural and non-threatening setting without any coercion. Data that enabled the researcher to realize the study objective was given. The results of the perceptual surveys are discussed in Chapter 3.

5.3.2.b Phase 2

The focus of this phase was conceptualization of the described findings. The conceptualization is described in Chapter 4. Relevant literatures were reviewed as to determine facilitative strategies of critical thinking as described by other researchers and authors. The literature review is based on the strategies that were described by the participants as being facilitative of critical thinking. The strategies to facilitate critical thinking are described in table 5.2 in this chapter. The completion of this phase gave an indication that the purpose and objectives of the study with a subsequent addressing of the research problem is achieved. It is therefore imperative that the study be evaluated for its contribution to nursing education and practice.
5.3.2.4 Trustworthiness

To establish the credibility of the study the researcher used prolonged engagement with the participants whereby an initial meeting was set with each group of participants to introduce one another to each other and explain the purpose of the study so as to establish rapport and the focus interviews were done on a subsequent date. The study was supervised by a promoter who is an expert in qualitative research. Data was collected till it was saturated so as to provide a database for prospective researchers, and a thick description of the design and methods was provided to ensure replication of the study. The research methodology was extensively and fully described to ensure dependability and different sources were used to collect data (educators and students). Literature control and an independent co-coder were used to verify the accuracy of data analysis. A consensus meeting was held with co-coder to confirm data analysis.

The limitations of the study are discussed below.

5.3.3 LIMITATIONS OF THE STUDY:

Collection of data from nurse educators was difficult as it was not possible to get all educators together at the same time due to their duty obligations. However sufficient data was collected from those who were available. Permission to conduct the research at one of the colleges was denied, which influenced the data collection as the researcher had envisaged collecting data at three colleges in the Gauteng Province. In spite of this limitation data collected at the two colleges proved to be sufficient to answer the research questions and address the objectives of this study. The study was undertaken when fourth year students were out of block and this delayed data collection however the researcher waited for the period when the students were on block. The recommendations are discussed below.
5.3.4 RECOMMENDATIONS:

The recommendations are based on the findings of the study. Although the nurse educators and students were aware of the importance of critical thinking in the nursing profession, there is no real facilitation of this skill in nursing education. The result is production of non-critically thinking practitioners. It is therefore recommended that the strategies described in this chapter be implemented to improve nursing education and research so that we are in line with the global standards.

5.3.4.1 Nursing Education:

In spite of knowing the obstacles in the facilitation of critical thinking by the educators and the learner, there is no real effort on the part of the educators to attempt developing and facilitating this skill in nursing students. There is therefore a need for educators to:

- Review their teaching strategies and institute those that facilitate the use of critical thinking.

- Change the classroom environment to one that is dominated by dialogue and dialect in order to facilitate critical thinking in learners.

- Change the educational approach to a constructivist one, whereby students take ownership of the learning process.

- Change to a student-centered educational approach, whereby students are taught how to think and not what to think.
- Revisit curricula to ensure that critical thinking is entrenched in them.

- Develop and facilitate critical thinking from the first years of training.

- Teachers should be critical thinkers themselves.

5.3.4.2 Nursing Research

The researcher believes that the study should be taken further to research if nurse educators are critical thinkers themselves, as no one can teach critical thinking if they are not critical thinkers. Further research could be carried out to develop a model to facilitate critical thinking in nursing education. The absence of direction in facilitation could be the reason why this skill is not developed in nursing learners. It is therefore evident that following exposure to a critically thinking nurse educator at the beginning of training, nursing learners will demonstrate greater independence of mind, intellectual curiosity, courage, humility, empathy, integrity, perseverance, faith in reason and fair-mindedness at the end of their training.

5.3.5 CONCLUSION

This chapter brings the study to a conclusion. The study brought to light the fact that both the nurse educators and the student nurses are aware that there is no facilitation of critical thinking in nursing education. However there is a problem as there is no effort in the teaching-learning process to facilitate this skill. The study also revealed the fact that there is a need for continued education on the
part of the educators. It has also been found that there is a need for a change in the educational approach, with a move towards the constructivistic paradigm. It was as well realized that to be able to teach critical thinking an educator has to be a critical thinker him/herself. The purpose of this chapter is achieved with the evaluation of the entire study to ascertain if the problem statement, purpose and objectives were addressed. Recommendations for further research were also discussed.
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ANNEXURE A

TRANSCRIPTIONS OF THE FOCUS GROUP INTERVIEWS OF THE STUDENT NURSE PARTICIPANTS OF THE OBSTACLES IN THE FACILITATION OF CRITICAL THINKING IN NURSING EDUCATION.

NOTE: I = INTERVIEWER R = RESPONDENT

I: What are the obstacles in the facilitation of critical thinking in nursing education?

R: What I find to be a problem for me, is that you are not given enough time to prepare for whatever that you are going to do, you are given a few minutes and you are going to go quickly through the book as it is and only when you are in class do you realize that you could have taken another direction, and done things differently.

I: I understand what you are saying, but how do you think that affects your critical thinking?

R: It delays the process, you can't just start answering things you don't know, you first need to read and understand, and by understanding its then that you can think critically, analyse and answer the questions.

I: Mmm....

R: I actually agree with her, like she said now, you are given 30 minutes to an hour and you are told to go and prepare something and you struggle to get the information together because all have different ideas, and by the time you need to go back to class you are not finished and all you do is cram the work just so you pass the exam, so there is no critical analysis.

I: I can hear, I can hear your frustration. Any other obstacles to critical thinking?

R: I think the tutors, according to my view they still belong to the old school, because they come with their old methods and they still want to implement them. I think they must let the young ones take over.

I: How do the tutors’ methods affect your critical thinking?

R: It stereotypes us and we follow their outdated methods, we even become bored to study because they pile us with work.

I: Mmm....

R: I think if you come to class for the first time you expect a lot from the tutor, I don't say they must spoon-feed us, but they should guide you. Where I don't understand I must be able to go back to her for help. If you are given work to do and you are expected to work through it within a short period of time, firstly English is not my language, that's an obstacle, so how am I expected to think critically?

I: I can sense a lot of frustration and I'm glad we are bringing it out in the open. Let's hear from "H".

R: One other problem is that you are given a list of learning tasks to go and do as a group, only to find that all the questions are word for word from the book. I mean where is my brain working...
there? I just tell myself, you know what, just rewrite what is in the book, and you don’t need to use your brain to rewrite something.

I: Are you saying the type of questions you are asked also hinder your critical thinking?

R: They are... the questions are hindering critical thinking, you just look at the question and you rewrite what is in the book. What am I thinking about? Nothing!

I: What other obstacles do you think there are?

R: This OBE thing we are practicing now is not effective. It seems the tutors are just implementing what they do not know. It seems as if they did not go for training. We understand that the students must do 90% of the work and the tutor 10%, but how do they teach something that they don’t understand themselves? This I find to be an obstacle.

I: Do I hear you well when I say you are saying the tutors are an obstacle.

R: Yes, take somebody who has worked in the ward as a registered nurse before and has been a tutor for some time, you ask them a question and she says ...” if you don’t know I also don’t know”.

I: Am I hearing you well? Are you saying the attitude of the tutors is an obstacle?

R: I think the attitude of the tutors is an obstacle because we are not here for the sake of passing we are here for learning and understanding so as to be able to practice.

I: Let’s give “K” a chance.

R: Lack of preparation is actually another obstacle because they come to class not prepared. You look at the tutor as a role model right? And then if they come and they are not prepared, you look at them and ask yourself why should I bother and waste my time and energy to prepare when they don’t, so you just relax and that is really not good.

I: I am trying to understand what you are saying. Are you saying the tutors come to class not prepared at all?

R: Not at all, because sometimes you ask a question, and she does not know what to say because she did not prepare enough. Then you get an attitude, like this colleague of mine said....if you don’t know I also don’t know. Then you say to yourself if that is the attitude, why should I bother myself.

I: So we are talking about preparation by the tutors. Er....”H” is it the same or something different?

R; Um... what I also find to be a problem we are asked to apply what we are taught in the practical situation. How am I supposed to analyse anything critically especially in the practical situation because most of the time the students are used as workforce. You don’t get time to go through files to critically analyse the information. When you come back to class you are expected to correlate the two. How do you do that if you don’t have any frame of reference?

I: Very important point, before I come to you “E”. Um...basically what we are saying is there is no clinical facilitation, correct me if I’m wrong.
R: What I want to say is in a classroom setting there must be challenge. People must be open to challenge, like I for one I really like talking, I never keep quiet. I'm forever talking and if a tutor is standing there and I want to ask a question, they will say you seem to know too much or you want to disrupt the class. So I think there should be that acceptance of challenge. The tutors must accept challenge from students, so if a student does not understand she must have a right to stand and say but ma'am I don't understand, until they come to an understanding. Like sometimes you ask a question and the tutor says to you, “ag” you just want to confuse yourself, I'm not here to get confused I'm here to learn. So I think it will be beneficial to the students that the tutors are open to challenge by students.

I: Would you say this course is an adult education course or what?

R: What I find here is that tutors regard students as people who don't know anything. They don't take the opinion of the students or frame of reference when they are answering question.

I: Very important point again. You would like to have your opinions taken into consideration.

R: The main obstacle is lack of transformation, they are there and we are here, they come with their old methods and they don't want to change.

I: Mmm....

R: Like I wanted to add to what "H" said, when you are in class you are given work from a book and you must answer exactly as the book says because that is what the tutor knows, she was preparing the lecture, if she was preparing according to the book. If you are giving something that is not in the book, according to her you are wrong. Let's take for instance a ward situation, you sometimes don't follow the book, but at the end of the day you get the procedure done. So if are going to be following the book every time, that will also minimize critical thinking because you end up not thinking at all.

I: Let's hear “k”

R: In my first year I was told to improvise, and you come to the ward situation and you try to use your critical analysis and improvise to get things done, no matter whether you do get things done, you are shut down without being given a chance to give your rationale why you did things the way you did. You are just told it's not in the book, its wrong.

I: What do you think causes the gap?

R: I think the way the tutors know things from the book and the way things get done in the wards is completely different and when you do the things the way its done in the wards, and the tutor will jump in and say its wrong.

I: Are you saying the tutors need some kind of in-service education?

R: Yes.

I: What do you say should be done?

R: I would like the tutors to take the students' opinion without them thinking that you are just a stupid student who does not know what you are talking about.
I: In other words you are saying you would like your opinion taken into consideration, meaning there should be some information sharing between the tutors and the students.

R: I think what should be done is that the tutors should go for some lessons, at least every two years to catch up with what is going on in practice, so that there are no clashes of ideas between them and the students.

I: So you are saying continued upgrading or some kind of in-service education is necessary?

R: As for the attitude of the tutors, I think it should change and they should stop feeling threatened by students.

I: What else should be done?

R: I think it will also help if a tutor comes to class with a topic and you just sit like this and discuss instead of writing notes. You just talk and by so doing you get to know what others think and feel. You can't get all the work just by writing notes all the time, but by talking things over in an informal way, people get to relax and speak up.

I: Anything else?

SILENCE

I: That brings to the end of our interview, thank you once more.
ANNEXURE B

TRANSCRIPTIONS OF THE FOCUS GROUP INTERVIEWS OF THE NURSE EDUCATOR PARTICIPANTS OF OBSTACLES IN THE FACILITATION OF CRITICAL THINKING IN NURSING EDUCATION.

NOTE: I = INTERVIEWER	R = RESPONDENT

I: What are the obstacles in the facilitation of critical thinking in nursing education?

R: When it comes to critical thinking I think it is both the nurse educators and the students. At times you get students who are not of the calibre of understanding what you mean by critical thinking and as you go on trying to "push" you get discouraged at the end of the day.

I: So what are you saying is the problem lies with the students, that is if I get you right.

R: I agree with "A". It is definitely the character of the student that is an obstacle here. I think the selection process is not right, we are not really selecting right and the support system for the students is not right, because I feel that subjects like mathematics, science and biology play a vital role in nursing. Our students are really behind educationally and you have to try to pick them up and that is why they will always be behind.

I: What you are saying their educational background does not prepare them for critical thinking? They come to nursing and they are not critical thinkers already.

R: They haven't got any foundation, I'm just saying little things like comprehension, basic jigsaw puzzles, when you give them a crossword puzzle it "hits" them. They haven't got critical thinking. Something out of the way like saying to them the answer to that question you'll find in this paragraph, as soon as you deviate and use other strategies, they are up in arms. They cannot handle it.

I: Yes.....

R: I think it's not education only, I think the parents also contribute. They don't give them the opportunity to question and think for themselves. It's not only about education.

I: If I hear you well, are you saying it is also a cultural thing?

R: Yes, yes I think so too.

I: So we are saying culture can be an obstacle?

R: I think it also involves socialization as well, because the parents are not critical thinkers themselves.....you do it my way or you don't.

I: So what are you saying here?

R: "Ja" what I'm saying is they just follow and not question.

I: They don't question....okay?
R: And I don't think it is a specific culture, it is all cultures.

I: Okay...any other obstacles that you can think of.

R: My main concern is the fact that if you try to introduce new facilitative strategies to the learners to try and get them thinking critically they become so resistant, they are extremely resistant.

I: What do you think makes them resistant to new strategies?

R: They actually want to be “spoon-fed”. They don't want to work independently. They never debate, compare, analyse, we just ask them low cognitive questions.

Silence....... 

R: If you ask them to combine “A” and “B” to make “C” they can’t say how “C” is made. They can tell you how “A” is made and how “B” is made but not how they came about with “C”. Even with test questions as soon as you ask high cognitive questions they get low marks.

I: Why is that?

R: I was thinking maybe it is language, but language does not stop you from thinking.

I: Yes........

R: But maybe sometimes it has to do with their inability to read and understand things.

I: Mmmm.....

R: Right now you teach them in class and to take that and apply it in the clinical situation becomes a problem and that’s where critical thinking comes in.

R: But maybe it is because they don’t know how to link the information to the context.

I: Why is that?

Silence...

I: Do you think there are obstacles with us as educators or teaching strategies, the way we teach, the way we put ourselves across to students?

R: Could be....um...you know... with some of us lecturing is lecturing, um... I mean there should be more of alternative strategies.

I: So you are saying you don’t think there is no problem with us as lecturers?

R: I don’t know whether all the strategies that we use are facilitative of critical thinking.

I: Mmmm......
R: The thing is our students don't want these fancy things they want us to lecture, and don't want to think, instead they copy all those things that you give as examples.

I: What do you think about the way we ask questions?

R: To me critical thinking does not have to be for preparation for examination they should be able to take these skills and apply to their everyday life, especially in the clinical area because we need critically thinking practitioners.

R: You see the problem is that most lecturers don't change the set of their lectures. They don't use debate and they don't use role play, they just lecture and you can't change to do something different.

I: So are you saying it is resistance to change as well?

R: I don't think we are going to change this in the next two years or so.

I: Mmm....

R: The students are just expecting us to dish out information for them.

I: Okay, so what strategies can be used to overcome these obstacles?

R: They need academic support where they will be taught reading skills, study skills, how to take notes etc.

I: Okay, what other strategies can help us overcome these obstacles?

R: Better selection.

I: Better selection.

R: I think we must conscientise the students about critical thinking, because when I teach the nursing process I ask them what does the process mean in relation to critical thinking, they can not relate the two and yet it is written so nicely in their book.

I: What other strategies can we use?

R: Another thing is the lecturers need to keep abreast with what is going on, they need to be continuous learners.

I: Okay, "C" you were saying we should teach them what critical thinking is and link it to the content and how to apply it?

R: Yes, that's what I do with my post- basic students.

I: Right, are all the educators critical thinkers?

R: I was thinking about that now, because to apply critical thinking you have to be a critical thinker, and know what it is all about.

I: Yes, you can't teach critical thinking if you are not a critical thinker yourself.
R: I would like to think that I am a critical thinker because I think about it all the time and I think it comes naturally.

I: It does not come naturally, you learn and develop critical thinking through regular and conscious practice. Have we described all the strategies?

R: Another thing I think is to teach our students to improvise because to them this is the way I was taught and so I will do it as it is in the book.

I: Mmm....

R: To me you need knowledge to be able to think properly, therefore they should have science, mathematics and biology, because to me these subjects form a foundation for critical thinking. One builds on the other.

I: Mmm...

R; I think there should be a way in which we can teach them comprehension because they battle to understand simple questions.

R: Anything else ........(silence). If there is nothing else, this brings us to the end of our interview. Thank you once more for your valuable information.
MRS. A. MANGENA
NETCARE TRAINING ACADEMY
P. O. BOX 150
AUCKLANDPARK
2006

REQUEST FOR PERMISSION TO CONDUCT RESEARCH: STRATEGIES TO
OVERCOME OBSTACLES IN THE FACILITATION OF CRITICAL
THINKING IN NURSING EDUCATION.

Your application dated the 30 MAY 2002, received on the 23 July 2002, refers.

I have the pleasure in informing you that you are hereby granted permission to
conduct the above research in Nursing Colleges in the Gauteng Province provided
that the following conditions are met:

⇒ You receive permission from the Principals of the Colleges.
⇒ The Management is kept informed regarding progress of the research.
⇒ The research does not interfere with the learning environment of the
  respondents.
⇒ The confidentiality and the anonymity of the respondents and the
  institution is maintained at all times.
⇒ A copy of your completed study is donated to this Department.

Best wishes for your research. The Department looks forward in hearing about
your progress in this study. Please do not hesitate to contact us if we can be of any
assistance.

Yours sincerely

[Signature]

MS. P. C. NEL
ASSISTANT DIRECTOR:
PROFESSIONAL DEVELOPMENT
Dear Participant

CONSENT TO PARTICIPATE IN A RESEARCH PROJECT

I wish to conduct a research project entitled “Strategies to overcome obstacles in the facilitation of critical thinking in nursing education”, as part of the requirement for acquisition of a Masters Degree in Professional Nursing Science. This study will conducted under the supervision and guidance of Dr MM Chabeli and Mr EJ Arries, of the Department of Nursing Science, Rand Afrikaans University.

The aim of this research project is to describe strategies to overcome obstacles in the facilitation of critical thinking in nursing education.

With your permission you will participate in a focus group interview, whereby you will explore and describe your perceptions with regards to obstacles in the facilitation of critical thinking in nursing education and how these obstacles could be overcome. A tape recorder will be used during the focus group interviews to ensure trustworthiness. To protect your identity, participants will not refer to one another by name or indicate the name of their institutions during the discussions. The tapes will be destroyed after completion of the research project. Your participation will be highly appreciated.

Should you agree to participate, please sign your consent with full knowledge of the nature and purpose of the procedure below.

You have the right to withdraw your consent at any stage during the phases of the interview sessions. It is clearly understood that you are under no obligation to participate in this research project. About seven (7) to twelve (12) participants will be needed for the research project during the month of July. Focus group interviews will be held at your college. Date and time will be arranged as soon as your consent is obtained.

Should you have any questions with regard to this project, feel free to contact me (Tel. No. (011) 980 656 (H)).

Thanking you in anticipation.

Yours faithfully

SIGNATURE OF PARTICIPANT

MANGENA (MRS)
M. CUR. (PROFESSIONAL NURSING SCIENCE) STUDENT

MM CHABELI (DR)
STUDYLEADER

FJ ARRIES (MR)
CO-STUDYLEADER
Dear Mrs Mangena

APPROVAL OF FIELD OF STUDY

I wish to inform you that the field of study for your dissertation has been approved as follows:

"Strategies to overcome obstacles in the facilitation of critical thinking in Nursing Education in Gauteng."

Supervisor : Dr MM Chabeli
Co-supervisor : Mr EJ Arries

At this stage I would like to draw your attention to the relevant University Regulations, a copy of which is included. Please study it very carefully.

Yours sincerely

JA VERMEULEN
HEAD: FACULTY ADMINISTRATION