Development of an educational programme to facilitate critical thinking of student nurses in Namibia

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Abstract

The article focused on the development process of an educational programme to facilitate the development of critical thinking in the students. The study was conducted in four phases, beginning with the needs assessment in phase 1 through which the researcher determine the need of the students in terms of critical thinking. The deductive data analysis of phase 1 served as basis of the conceptual framework for the development of an educational programme. Phase 2 focused on the development of the conceptual framework and it was achieved by utilized a specific educational approaches and philosophical framework were employed. Phase 3 and 4 were conducted simultaneously. Phase 3 focuses on implementation while phase 4 focuses on evaluation. A quasi – experimental design was implemented which focused on active participation by the participants in the programme.

Keywords: *Development; Educational Programme; Facilitate; Critical Thinking; Student Nurses.*

1. Introduction

Nations around the world face "mounting problems in health care", which include rising costs, challenges in the access to services and calls for safety and quality, especially in developing countries such as Namibia. This phenomenon has been the incentive for nursing practice to change from being medically driven to being increasingly nurse-led (Banning, 2005, p.502; Kyrkjebo & Hage, 2005, p.167; Uys & Gwele, 2005, p. vii).

By implication this meant that nurses were expected to assist patients to protect, maintain, improve or gain optimal levels of health. Nurses, however, unlike many other professionals, find themselves in a complex world with different health care situations that call for certain skills to enable them to cope with these situations. As Alfaro-LeFevre (2004(a), p.1) puts it, "today's fast-paced health care setting is full of surprises – nothing is simple anymore!" The question is how to respond to the challenges?

This tendency is also applicable to Namibia. Namibia has a very complex and extensive health care delivery system, in which professional nurses are expected to make discretionary judgments autonomously. Professional nurses in Namibia are expected to act decisively and correctly, displaying critical thinking, in order to handle problematic and complicated nursing situations. They should also be able to debate issues around and solve the problems of clients/patients and communicate their knowledge to others in the profession. The nurse needs to bridge the gap between the technological aspects of care and the human responses to illness and disease by caring. The complex legal, educational and professional problems confronting nurses today emphasize the need for more than rote memory, knowledge of skills and the ability to follow directions. Critical thinking is undoubtedly one of the skills and competencies that is required from a nurse to cope with day to-day practice.

Critical thinking is a concept that is difficult to define because of its complexity and the different opinions surrounding it. Thus, the important first step of establishing a clear conceptual definition of critical thinking has not been accomplished and studies are still being undertaken to reach consensus on exactly what critical thinking is.

However, critical thinking is fast becoming the new focus for education at all levels of the educational system and it should be realized that critical thinking is not exercised in a vacuum but forms part of the educational milieu (Miller & Malcolm, 1990, p. 69).

Nevertheless, the view is that critical thinking is the process that helps a nurse to decide what really matters and what is important in different situations. It is also the ability to argue a case until the best solution for the problem is reached (Bandman & Bandman, 1988, p. 2; Burnard, 1989, p. 272; Jones & Brown, 1991, p. 529; Glen, 1995, p.170; Fonteyn, 1998, p. 305; Feingold & Perlich, 1999, p. 42)

The expression "critical thinking" has become so popular that people who are unable to agree on most of the important things in life can agree that they think critically. Critical thinking has been covered by a wide array of disciplines that cite specific reasons why critical thinking is important within their field and nursing is one of the disciplines which have realized that appropriate critical thinking skills are important for nurse practitioners (Thurmond, 2001, p. 3; Carroll, 2007, p.7).

Nurses caring for patients need to be skilled critical thinkers because the nurse is the one who is in contact with the patient for 24 hours. All other members of the health team come into contact with the patient for only fractions of the day. This scenario leaves the nurse to carry out fragmented instructions and prescriptions from every member of the health team who has seen the patient. The nurse has to be able to organize all these elements into a holistic nursing care plan that will enable her to meet the needs of the patient. In order to coordinate all the inputs from different

health team members, she/he needs to be an analytical critical thinker. This will enable the professional nurse to stay focused and thereby render quality care to individual patients (Pretorius, 2001, p.12).

The rapidly changing conditions of patients in the clinical set-up often necessitate that nurses think critically. The realities of the new millennium have made it essential to teach nurses to think independently within the health team and the community (Uys & Gwele, 2005, p. vii).

Rowles and Brigham (1998, p. 249) emphasized that every patient deserves caregivers who are able to think critically and by so doing solve problems that might crop up during the patient's care. Nurses should formulate nursing problems by weighing up evidence, clarifying beliefs and evaluating conclusions, as well as by examining nursing assumptions, clues and data. This would make it possible to handle each patient's case on merit and plan and deliver care tailored to the individual (Bandman & Bandman, 1988, p. 3). Green (2000, p.3) is also of opinion that once nurses have been engaged in exercises that focus their attention on attitudes during the process, they will become aware of how such attitudes affect their own thinking.

The concept of the development of critical thinking skills poses a challenge to nurse educators because it is their responsibility to educate and train students in this regard. Critical thinking skills will enable students to render quality nursing care once they have become registered nurses.

It is therefore imperative that nurse educators assist students, through role-modelling, coaching and mentoring, to strengthen and develop their thinking skills.

Applegate (1998, p. 202) states very clearly that students can no longer be the receptables for knowledge acquisition. Instead, students should learn how to obtain and

manage information. Teaching students how to obtain, organize and use information to solve complex problems in nursing is an empowering activity that prepares them for lifelong learning. If nurse educators do not emphasize those skills in their teaching sessions, a lack in problem solving and critical thinking skills will be apparent when nurses have to provide nursing care. This will put the patient at a disadvantage.

The challenges for nurse educators in Namibia became apparent when the researcher did a Master's degree on the role of the clinical instructor in the development of the critical thinking skills of student nurses in Namibia.

It was found that professional nurses in training hospitals in Namibia do not understand the concept of critical thinking, nor do they know how to apply critical thinking skills in nursing practice and therefore they do not focus on the development of critical thinking in student nurses. A need was therefore identified to make student nurses aware of critical thinking in nursing practice since they are the professional nurses of tomorrow, and they will be expected to solve complex problems by thinking critically.

The skills that were found to be lacking in student nurses were both cognitive and affective in nature. In the cognitive sphere, the ability to analyze and evaluate, and see things in perspective, along with creativity, contextual sensitivity and alertness to the use of critical thinking were absent. This need could be addressed by means of an educational programme, in which the student nurse could be assisted to develop his/her own critical thinking.

Student nurses need to be encouraged to ask questions about nursing practice and be willing to attempt to seek answers about practice, because critical thinking in nursing means to constantly strive to find a better way by focusing on two key issues: What are the outcomes? And how can I do better? Paul (1995, p.ix) wrote that critical thinking is essential for education and that it is a highly

systematic way of shaping and applying one's thinking within daily learning.

It was also found that nurses were not able to interpret and assign meaning and significance to what they observed and to draw reasonable conclusions on the basis of their results or to discriminate between observation and inference.

For the nursing profession of Namibia, it is imperative that nurses develop the affective domain of critical thinking. According to the previous study conducted among nursing students and nurses in Windhoek training hospitals, as mentioned, nurses did not have organized judgment, intellectual courage, open-mindedness or the reflective ability to ponder on findings in order to plan the best nursing care for their patients. Neither did nurses display persistence through difficult decisions and complex scenarios.

Against the background sketched above, and through regular contact with student nurses in the health services, the researcher identified the following problem: student and professional nurses in Namibia are not critical thinkers in nursing practice and therefore do not confront problem scenarios with an inquisitive and open mind but rather choose the "easier" and comfortable familiar way of handling problems. The implication of this is that patients will suffer as a result because superficial care will be rendered to them instead of well-thought out and focused care of high quality. The complex legal, educational and professional problems confronting nurses today underline the need for more than just a superficial approach and the ability to follow orders. Nurses are called upon to practise higher order thinking skills in a critical spirit (Green, 2000, p.1). According to Burnard (2005, p.86) the time has come for nurse educators to wake up to the current need for critical thinking in nursing practice.

2. Purpose of the study

The specific purpose of this study was to develop, implement and evaluate an educational programme that will promote critical thinking among student nurses in order to empower them to practise critical thinking as professional nurses after completing their studies.

3. Objectives of the study

The objectives of the study were to:
- Conduct a needs assessment on the needs of the student nurse in Namibia regarding critical thinking in nursing practice
- Develop an educational programme to facilitate critical thinking among student nurses in nursing practice
- Implement and evaluate an educational programme to facilitate critical thinking among student nurses in nursing practice

4. Methodology

The research for this study was conducted in four phases, namely; Phase 1: Needs assessment; phase 2 Development of the educational programme, Phase 3: Implementation of the educational programme and Phase 4: Evaluation of the educational programme. Figure 1, represents an outlay of the phases of the study as described in the preceding text. Since the detailed methodology of the study is described through the different chapters describing the phases, the research process and its activities are indicated in Table 1.
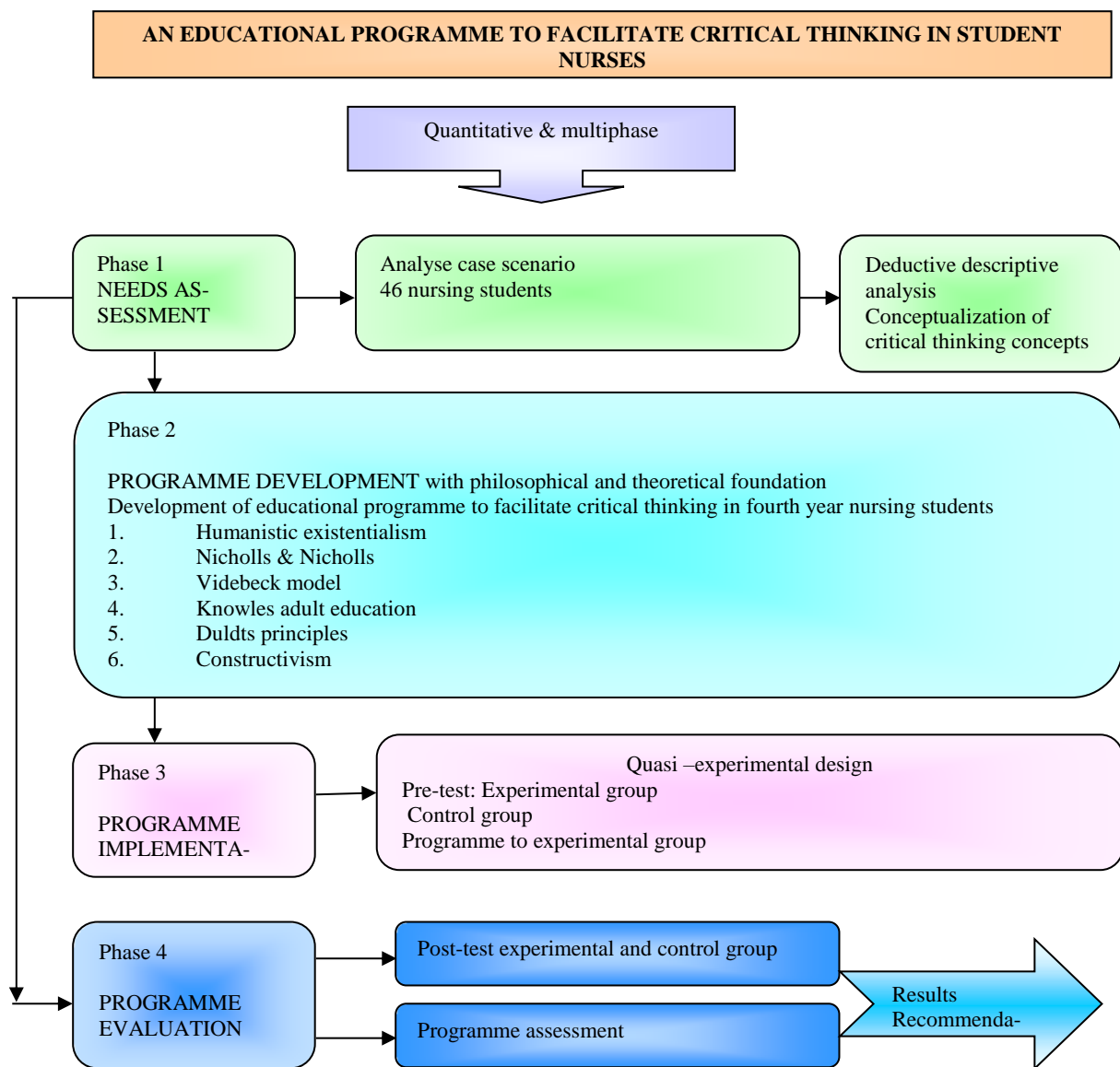
AN EDUCATIONAL PROGRAMME TO FACILITATE CRITICAL THINKING IN STUDENT NURSES

Quantitative & multiphase

Phase 1
NEEDS AS-SESSMENT

Analyse case scenario
46 nursing students

Deductive descriptive analysis
Conceptualization of critical thinking concepts

Phase 2

PROGRAMME DEVELOPMENT with philosophical and theoretical foundation
Development of educational programme to facilitate critical thinking in fourth year nursing students
1.   Humanistic existentialism
2.   Nicholls & Nicholls
3.   Videbeck model
4.   Knowles adult education
5.   Duldts principles
6.   Constructivism

Phase 3

PROGRAMME IMPLEMENTA-

Quasi –experimental design
Pre-test: Experimental group
 Control group
Programme to experimental group

Phase 4

PROGRAMME EVALUATION

Post-test experimental and control group

Programme assessment

Results
Recommenda-

Fig. 1: Outlay of Research Phases

5. Results

The discussions of the findings will follow the sequence of the fifteen questions as presented to the students in the case scenario. The outcome of phase one are described as illustrated in figure 2:

5.1. Phase 2

The findings revealed six main concepts and their related sub-concepts. These concepts included interpretation, analysis, evaluation, inference, explanation and self-regulation. These concepts were inferred from the deduction by the researcher. These concepts were the results of the concept analysis of critical thinking by 46 experts directed by Facione (1990, p. 6), together with the related dispositions.

These six main concepts constituted the framework within which the educational programme was developed.

As the study concerns nursing practice, the researcher deemed it necessary to indicate the association of these concepts with nursing as illustrated in fig 5.2.

The results of the conceptualization process were the denotations supported by the connotative meanings of critical thinking concepts which were used to develop an educational programme to facilitate critical thinking in student nurses.

Figure 4: Illustrates the relation between critical thinking concepts and sub- concepts in the nursing context.

5.2. Phase 3

The educational programme that was developed for the study was in line with the educational expectation that a programme should have a specific focus, based on a needs assessment. This is in fact considered to be crucial in the development of a programme (Fichardt & Viljoen, 2000, p.107; Thorpe & Loo, 2003, p. 567).

The focus of this educational programme was to facilitate the development of critical thinking in student nurses to increase their ability to solve problems and improve the quality of nursing care within the Namibian context. An integral part of this programme was to teach participants in the programme (the student nurses) how to use critical thinking to synthesize knowledge and abilities in providing holistic care for clients/patients across their life span. Given that we can never anticipate every possible problem, educating people to think remains our best chance of solving the problems that come our way (Facione, Facione & Giancarlo, 1997(b), p.2; Boland, 1998, p.135; Finke & Boland, 1998, p.122; Fichardt & Viljoen, 2000, p.107; Thorpe & Loo, 2003, p. 567).

In the light of the above arguments and with literature support relating to the essence and applicability of educational programmes in the development of critical thinking in nursing education, the researcher developed an educational programme (phase 2) to facilitate critical thinking in the student nurse. Planning and design of the educational programme are indicated in figure 5.
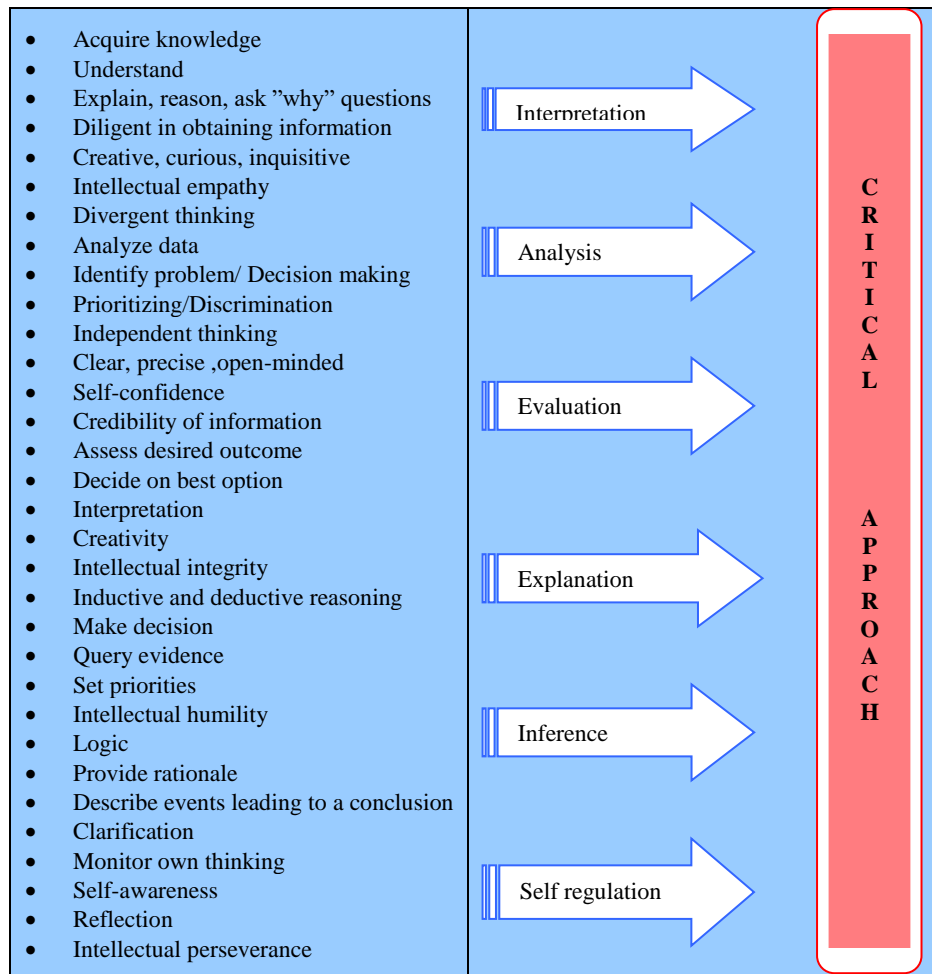
5.2.1 Purpose of phase 2

- Acquire knowledge
- Understand
- Explain, reason, ask "why" questions
- Diligent in obtaining information
- Creative, curious, inquisitive
- Intellectual empathy
- Divergent thinking
- Analyze data
- Identify problem/ Decision making
- Prioritizing/Discrimination
- Independent thinking
- Clear, precise ,open-minded
- Self-confidence
- Credibility of information
- Assess desired outcome
- Decide on best option
- Interpretation
- Creativity
- Intellectual integrity
- Inductive and deductive reasoning
- Make decision
- Query evidence
- Set priorities
- Intellectual humility
- Logic
- Provide rationale
- Describe events leading to a conclusion
- Clarification
- Monitor own thinking
- Self-awareness
- Reflection
- Intellectual perseverance

Interpretation

Analysis

Evaluation

Explanation

Inference

Self regulation

CRITICAL APPROACH

Fig. 2: Clustering of Concepts through Concept Synthesis.

NURSING CASE SCENARIO

Interpretation

Self-regulation

Analysis

Nurse's critical approach

Explanation

Evaluation

Inference
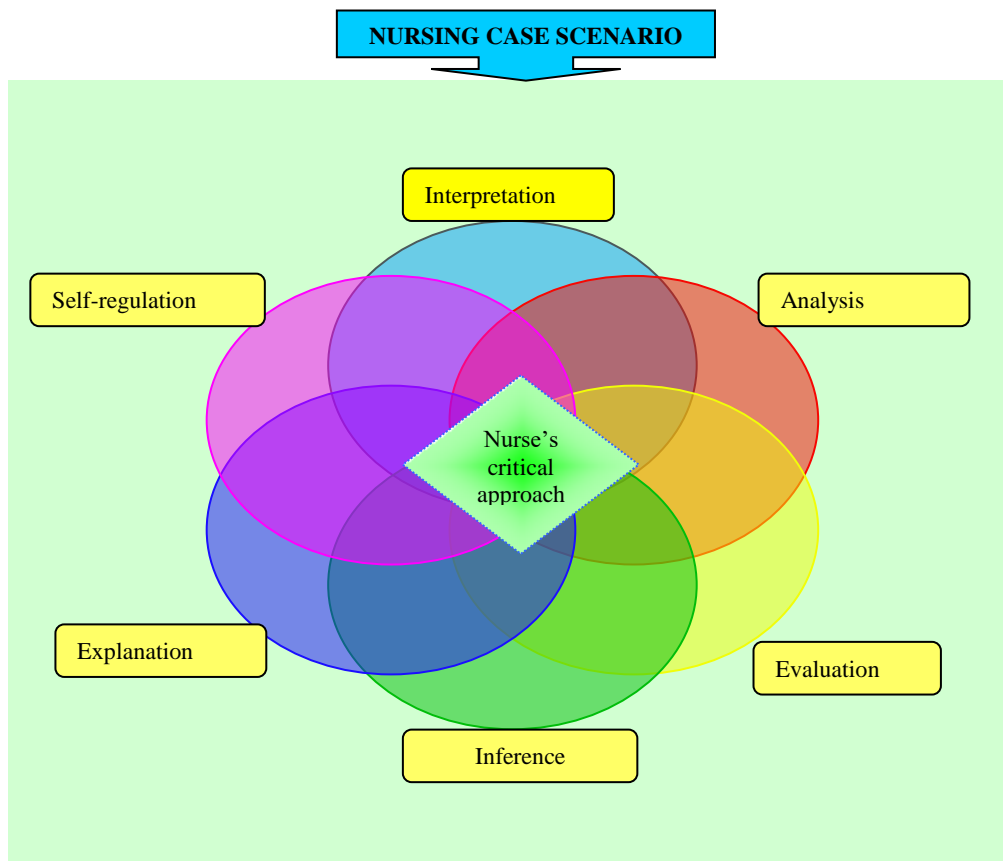
Figure 3: Schematic Presentation of Critical Thinking Concepts in the Nursing Context.

Sub- Concepts	Concepts	Outcome

Sub-Concepts

- Why? Inquisitive
- Basic knowledge   Curiosity
- Questioning
- Perseverance

- Breakdown   Facilitate thinking
- Make choices
- Divergent
- Examine detail

- Ongoing process
- Credibility of information
- Intellectual integrity
- Intellectual courage
- Reflection
- Judging value

- Reasoning   Intellectual humility   Prioritizing / Focus
- Goal oriented
- Purposeful
- Creativity /   Decision making   Conclusion

- Logic
- Clarify
- Give rationale
- Clear / Complete

- Reflection
- Intellectual perseverance
- Self- awareness
- Self-assessment
- Self-confidence

Concepts

- Interpretation
- Analysis
- Evaluation
- Inference
- Explanation
- Self- regulation

Outcome

Critical approach
Improved nursing care

Fig. 4: Graphic Representation of the Relation between the Main Critical Thinking Concepts, Sub concepts and A Critical Approach.

Purpose
To facilitate the development of critical thinking in student nurse

Participant

Facilitator

Verification
Peer review

Programme Plan and design

Approaches
Philosophical Educational

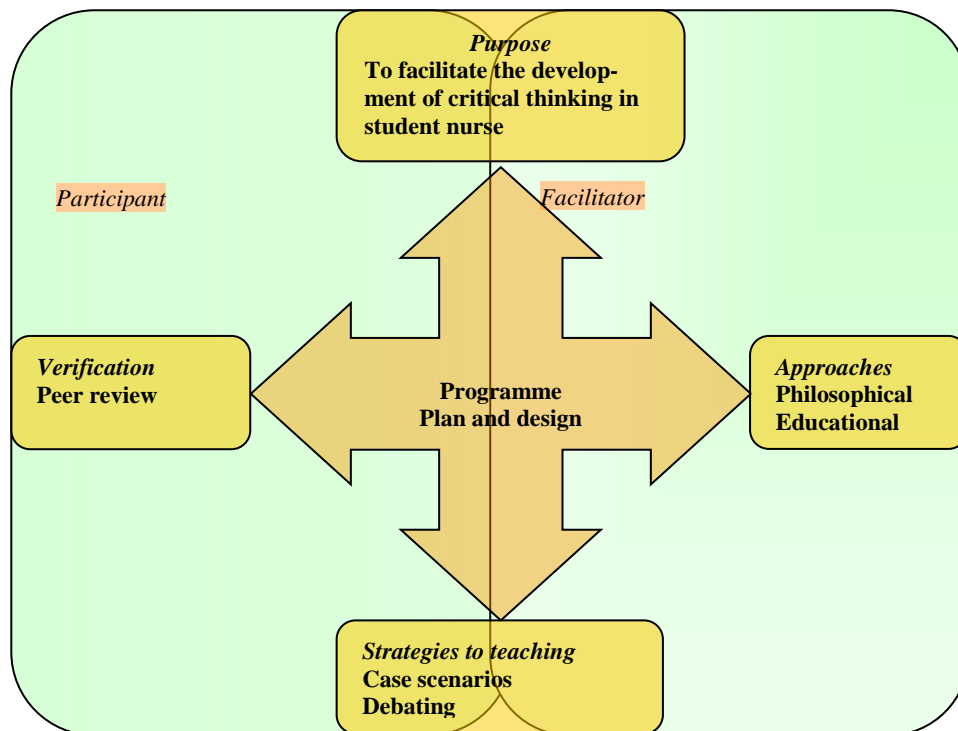*Strategies to teaching*
Case scenarios Debating

Fig. 5: Phase 2: Planning of Programme Development.

5.3. Phase 4

Implementation refers to the process of putting into practice an idea, educational programme or set of activities and structures for the people expected to change.Teaching and learning, as the most important features of this educational programme, are considered to be a dynamic process (Norton, 1998(b), p.211). It is, however, important to note that the emphasis of this educational programme was on the learner and the learning that takes place, rather than on the teaching. Teaching merely took the form of facilitation to develop critical thinking in the participants, because "without critical thinkers it is unlikely that much human progress would be made" – especially in the nursing profession (Wright, 2003, p.12). Although students normally like to be "spoon fed", the facilitator aimed, during the implementation phase of the educational programme, to promote active participation so that the sessions would be meaningful and would comply with the different approaches used to design the educational programme. Spoon feeding may be convenient in the short term, but the long-term implications of passive learning are profoundly negative (Youngblood & Beitz, 2001, p.39; Johns, 2002, p.1).

At an international critical thinking conference, a model for teaching critical thinking was discussed. The model proposes that one of the most effective approaches to teaching critical thinking is to conduct a two-day workshop where active participation by participants is proposed. Students should be encouraged to read critically and do self–assessment during this workshop. During such a workshop, the basic concept of critical thinking should be emphasized as well as the application to the specific discipline concerned, in this study the nursing profession (Anonymous, 1993, p.39).

6. Conclusion

Critical thinking requires that one thinks for oneself. Being an independent thinker does not mean ignoring what others think and doing whatever one pleases. Following the ideas of others makes one dependent only if one accepts the ideas without question (Wilkinson, 1996, p.29). The development of independent learning means the student becomes able and more willing to take on personal responsibility for learning. Nurses who think critically make high-quality judgments and draw valid conclusions and are thus indispensable to the nursing profession (Profetto-McGrath et. al., 2003, p.323).

Without an inquiring and insightful workforce, health improvements will not be achieved (Price, 2004, p.46) and no changes will be brought about in nursing practice to improve the standards of nursing care.

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