Adapting to and Implementing a Problem-and Community-based Approach

to Nursing Education

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Opsomming

Die proses van verandering wat deur die Skool vir Verpleegkunde aan die Universiteit van die Oranje-Vrystaat geimplementeer is ten einde 'n paradigmaverskuiwing in benadering tot verpleegonderrig op voorgraadse vlak teweeg te bring, word beskryf. Die noodsaak vir verandering, die vasstelling van eksterne en interne veranderlikes wat verandering beinvloed, die daarstelling van 'n ondersteuningstelsel, die voorkoming van weerstand teen verandering, die evaluering van die proses van verandering en die opsies vir die toekoms word uiteengesit.
Die rasionaal vir die implementering van 'n probleemgebaseerde onderrigstrategie en die infasering van 'n gemeenskapsgebaseerde benadering tot onderrig as kern van die veranderingsproses word bespreek.

Abstract

The process of change, implemented by the School of Nursing at the University of the Orange Free State so that a paradigm shift in approaches to nursing education at undergraduate level could be achieved, is outlined. The necessity to change, the identification of external and internal variables that impact on change, the founding of a support system, the process of overcoming resistance to change, the evaluation of the process of change and options for the future, are discussed.
The rationale for the implementation of a problem-based teaching strategy and the phasing in of a community-based approach to teaching as the heart of the process of change are discussed.

Introduction, aim and problem statement

The School of Nursing is one of three Schools in the Faculty of Health Sciences at the University of the Orange Free State. The four-year generic degree programme in Nursing has been offered at this School since 1969. This integrated programme leads to registration with the South African Nursing Council in General Nursing, Community Health Nursing, Psychiatric Nursing and Midwifery.

The University of the Orange Free State was traditionally an Afrikaans university that trained mainly white Afrikaans students in the apartheid era. The political changes in the country became one of the greatest forces in the process of change, especially in precipitating change in the composition of the student population.
For the past five years South Africa has been a country where change has become an everyday word and a lifestyle. In spite of this, the staff of the School of Nursing are in awe of the complexity of the change process, which was alluded to some four and a half centuries ago (1513) by Machiavelli (cited by Engel, 1989:96).

...there is nothing more difficult to plan, more doubtful in its success, nor riskier to achieve than change.

The changes brought about in the country and the new Health Care System as a whole, have demanded a paradigm shift in the approach to training on offer in the School of Nursing. The former programme was community orientated and students spent a substantial amount of time in clinics and community health centres, but the programme was primarily hospital-based, and the health-care needs of communities were not considered as important variables in programme planning. In addition, the teaching approach was not consistent with the

principles of adult learning.

The aim of this article is to describe how, with the passage of time, the staff of the School of Nursing, rather than merely concentrating on change, regarded change as a process of successive challenges.

As progress was made the team also realized that barriers to new initiatives were not unique. The barriers identified by Kaufman, Mennin, Waterman, Duban, Hansbarger, Silverblatt, Obershain, Kantrowitz, Becker, Samet & Wiese (1989) were also relevant to the new programme: *fear of loss of control; fear of the unknown; feeling comfortable with the status quo; the perception that academic promotion was based more on research than on teaching; the view that academic innovations are too costly; and concerns about resources.*

Since initiating the process of change, the team soon realized that the four strategies for overcoming barriers to change had to be implemented as the change process evolved:

- Developing of broad ownership for the proposed innovation;
- Wining converts by inviting participation;
- Forming new alliances to broaden the support base; and
- Sharing successes (Kaufman *et al.*, 1989).

goal was therefore set to start the programme two years after planning commenced.

For change to achieve broad support, it must be relevant to an audience wider than the small group who perform the planning, and should be linked to important forces outside the institution. Taking external motivation into account, it is beyond doubt that the political changes in the country were the most significant driving forces in the process of change. The national and international forces are discussed briefly.

Health - for - All Agenda for Action

The need for change was certainly augmented by the powerful global movement towards Health-for-All by the Year 2000, and the necessity to orientate national health care delivery systems towards primary care to serve that goal (WHO Alma Ata, 1978). The role of the health-professions education institutions in response to the health needs of populations gained prominence during the eighties. In an Agenda for Action the universities internationally were challenged to prepare health professionals for the prospective needs and demands of society (World Health Organization, 1991).

National Health Care Policy of the New Government, South Africa

In the National Health Care Policy the then new government places much emphasis on Primary Health Care, as a means of improving and maintaining the health of the South African population (Department of Health, 1996). The delivery of a comprehensive, high-quality primary health-care service has been a priority, especially for communities in underserviced areas.

National Commission of Higher Education, South Africa

The National Commission of Higher Education recommended that health-education institutions should revise their curricula in order to equip health-care students and health-personnel educators with a comprehensive knowledge, competency and attitudes to respond to the health-care needs of the population of South Africa (National Commission on Higher Education, 1996). In reality this meant contextualizing of learning and narrowing the gap between curricular content and the realities of health-care practice.

Community Partnership Programme

In 1991 the School of Nursing became involved in the development of a University Community Partnership Programme in the black community of Mangaung in Bloemfontein. This project was eventually funded by the Kellogg Foundation. Although the process of becoming aware of and questioning the teaching process to which students of the School of Nursing were subjected, was initiated by many factors, awareness of the ne-

The srategies for implementing change

The strategies, described by Mennin and Kaufman (1989), served as framework for the implementation of change in the School of Nursing, and they are associated with five phases of the process (see Table 1 The process of change.) :

Getting started

Part of the very first phase was not too plan too far ahead, but to get started so that the innovative programme could become a reality expeditiously, and considering factors that could sustain change.

Numerous reservations, doubts and questions concerning the innovative track emerged in and outside the School. It was realized that while thoughtful planning and broad-based input could relieve anxiety, waiting too long could actually magnify doubts and paralyze decision making. The

Table 1 : The process of change

PHASE 1 Getting started
* Explore external motives for change;
* Explore internal motives for change;
* Select appropriate leadership qualities; and
* Obtain educational resources and seek financial support.

PHASE 2 Building support, overcoming resistance
* Build broad-based support early and avoid isolation;
* Compromise;
* Develop staff through staff training; and
* Describe the innovative track as an experiment.

PHASE 3 Evaluation
* Evaluate short and long term results; and
* Evaluate the process of change.

PHASE 4 Networking
* Establish links between the school and other similar institutions that are well-established (nationally and internationally).
* Develop a sister school relationship; and
* Affiliate with a larger, recognized and well-organized organisation or network.

PHASE 5 Options for the future of the programme
* Maintain the innovative programme;
* Merge the two tracks into a hybrid; and
* Convert the entire programme to the innovative track.

cessity for change became a reality during the course of contact with community members and the identification of their health-care needs. This particular project had a significant impact on the nursing programme.

Educational methods and strategies
The teaching approach followed in the School of Nursing was not adequately synchronized with principles of adult learning, with the result that many students lacked problem-solving and critical-thinking skills. Passive academic behaviour was common and some students demonstrated an inability to integrate and apply knowledge from the basic sciences in the clinical context. The staff of the School were eager to produce assertive graduates who would be scientific thinkers and lifelong learners, capable of addressing the changing health-care needs of communities.

Change in the student profile
The student profile in the School of Nursing has changed rapidly since 1994. Students from deprived school backgrounds were admitted to the degree course and had specific learning and developmental needs that demanded attention. This support and development had to take place within the programme in the academic environment and clinical practice. The programme that was developed to address the specific needs of these students indicated that the adaptation and teaching approach required that students had to:
- be actively involved in the learning material;
- learn to work together in groups, promoting their professional status, role and cooperation;
- learn to solve problems;
- learn that they could learn independently;
- be protected from stressful experiences in the teaching situation;
- make personal contact with lecturers;
- integrate learning material;
- learn culture sensitivity;
- read effectively;
- write effectively;
- learn language proficiency; and
- develop inter- and intrapersonal skills.

The conclusion was that the specifications for change, identified through the exploration of the external and internal forces, could be addressed by implementing the principles of adult learning that pertain to problem-based learning, whereas the emphasis on awareness, responsiveness and accountability in addressing the health care needs of communities, could be achieved through community-based education.

The Head of the School supported the movement towards an innovative programme, and initially identified one, and later two additional lecturers, to assist in taking the process forward as a team. After extensive national and international exposure, the team members became advocates of problem- and community-based learning. They also took a personal risk by supporting a then relatively unknown teaching methodology in the School. This team would be in charge of the process of change to a new teaching strategy for the two years that followed.

All innovative-tracks programmes require special financial allocations due to the cost incurred in the development phase. Financial support helps to validate the worth of the project, and encourages acceptance within the institution. It is also enormously costly in staff and time to create programme and resource materials de novo.

Educational resources and ideas were obtained from conferences, and visits to nursing schools and faculties of health sciences, nationally and internationally. External funding was sought and obtained, and these resources were used to support the planning and implementation of the project for five years. These funds were invaluable. Not only did they create opportunities for development; they also allowed us to equip a seminar rooms, purchase equipment, and appoint two additional lecturers to substitute for team members who were involved full-time in the implementation of these new initiatives.

Building support and overcoming resistance

It is of crucial importance for planners to build support from different departments in the institution, as well as the relevant communities and government institutions. Equally, isolation from these partners should be avoided at all cost so that their ability to contribute productively to the innovative initiatives are not jeopardized.

The planners of the innovative programme held workshops to familiarise partners with new teaching initiatives; moreover, staff were invited to attend several training sessions on the implementation of the programme. The training sessions were considered to be critical in building support for the new approach and promoting confidence in staff. Staff were also fully involved in the development of a new programme and in the production of teaching materials. It was also envisaged that staff could obtain ownership of the programme through these interventions.

Although support is most important, the basic values underlying the innovation should be protected and defended at all times so that specific educational methods are not compromised in any way.

The critics' assessments were acknowledged so that even they would have ownership – this was achieved by taking their criticism seriously and making modifications to plans of action on the basis of their feedback.

Staff are more likely to support innovative programmes that are consistent with their values, and if they feel they retain ultimate control over its continuation. The innovative programme was therefore described as an experiment that had to be evaluated.

Evaluation

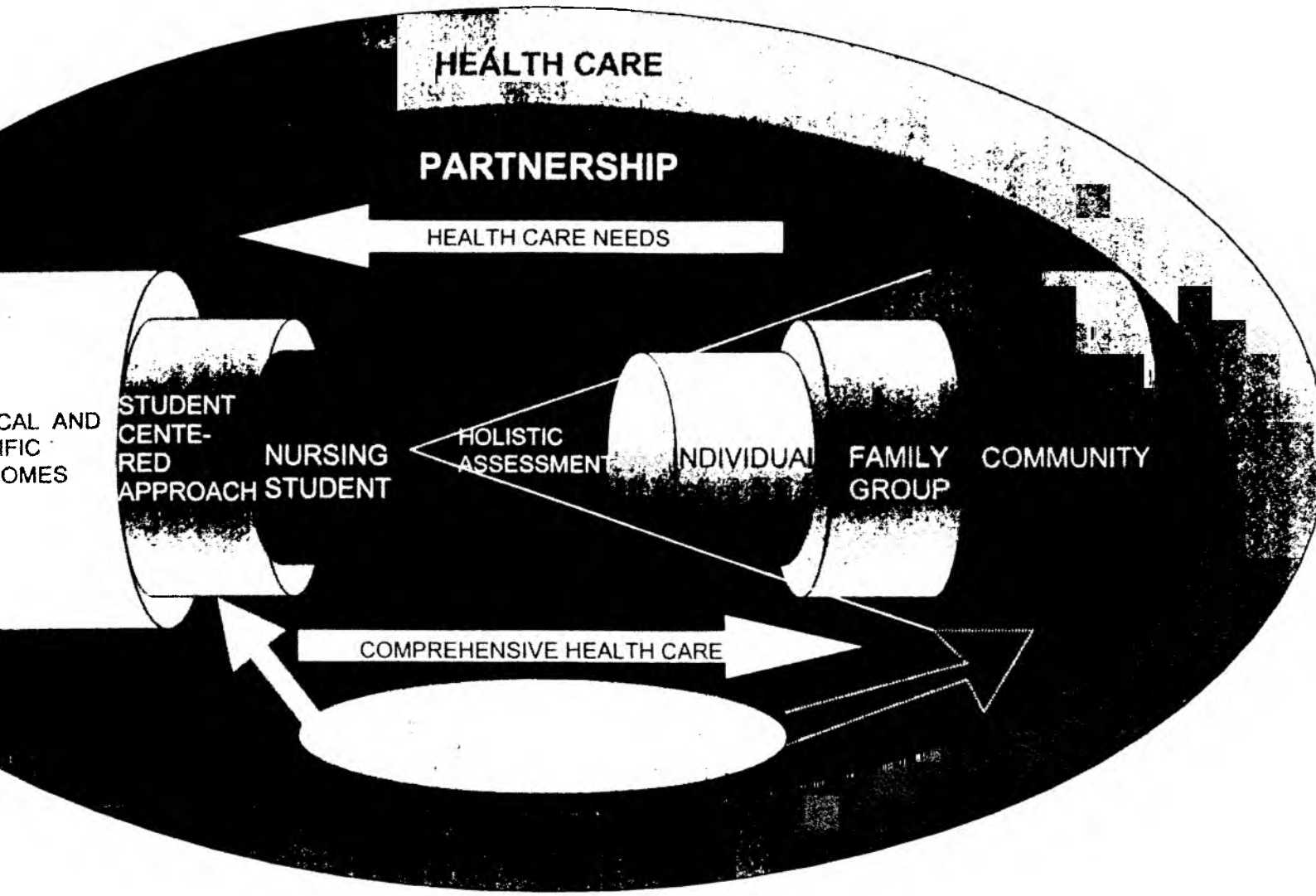
It is most important for planners of innovative programmes to establish feasibility, effectiveness and the effects on students and the institution. Evaluation requires the collection of baseline data, periodic assessment, as well as quantitative and qualitative measurements. To this end, one Ph. D. study has been completed and two masters degree studies are nearing completion. (The results are and will be published elsewhere.)

In addition, one of the most important contributions to the field of education involves the evaluation of the process of change and sharing a rigorous analysis of the change process itself, such as the strategies that yielded either success or failure, and the context in which these were applied as the forces that supported and opposed change. Since establishing the programme, our networking and communicating change, the programme and the School have gained in prominence at the University. Several lecturers have also been invited to share implementation experiences at national and international level.

Networking

Developing institutional linkages is important. Refreshing insights emerge when health-science institutions share how educators from different backgrounds and cultures identify and solve educational problems.

Networking was done at national and international level. Planners of the innovative programme attended international conferences, visited Schools and undertook field trips where similar initiatives were implemented. Exposure to these experiences was later expanded to the rest of the staff involved, and this seemed to be crucial in creating a sense of understanding and coherence during im-



: Conceptual framework

plementation. The School also obtained membership of the International Network of Community-oriented Educational Institutions. This membership has been fruitful in obtaining and exchanging information with institutions with similar innovative programmes. The School is in the process of developing a "sister school" relationship with another institution.

Options for the future of the programme

After a trial period, the innovative programme will demonstrate its worth and encourage conversions within the institution.

The School of Nursing has transformed the nursing courses, but the other basic courses are still offered in the traditional mode. From discussions with other academic stakeholders it is clear that when enough is known about the curricular changes to be made, action should be taken on the basis of this knowledge. An attempt should be made to transform the entire programme to be consistent with the content and methods employed in the innovative programme. The present option of combining the two tracks into a hybrid may be sustained.

Main features of the innovative programme

Conceptual framework

The new conceptual framework involves community partnerships and emphasises the health-care needs of communities and the learning needs of students. The new approaches clearly indicates the emphasis on the above-mentioned needs (see Figure 1).

Problem-based learning (PBL)

Problem-based learning as a teaching methodology has been extensively theorized and its application in a number of practice-based professions has been reported in some detail (Townsend, 1990, Boud & Feletti, 1991). It is one of an increasingly large range of approaches to teaching and learning which challenges traditional educational assumptions about knowledge, knowledge ownership (expertise), and appropriate power relationships between teacher and learner.

Different interpretations of problem-based learning exist. The School of Nursing associates with the definition of McMaster University, where the analysis of health-care problems is seen as the main method of acquiring and applying knowledge, the development of independent lifelong learning skills by students and the use of small tutorial groups, with five or six students and a tutor in each group as the central educational event (Neufeld, Woodward & Mac Leod, 1989).

Thus, in problem-based learning the learners focus their attention on a problem which may be clinical or community-based. While attempting to define, analyse and solve the problem through the process of sharing experiences and work, students learn fundamental principles and facts, which can be transferred to different problems they may encounter in the future. Concurrently, they also learn the process of problem solving. Learning is thus both meaningful and relevant.

Students are encouraged to define their own learning issues, arising from the problem at the first tutorial where the problem is presented. Work is allocated in the group and the students undertake learning tasks on their own and report back at the second tutorial. The group then attempts to answer questions from the problem they have been given. The effect of this process is that not only does the student acquire knowledge and develop self-directed learning skills, but important social and communication skills are required. A high level of motivation and interest is maintained among the students (Prideaux, Farmer & Rolfe 1994).

According to Schmidt (1993), central to the process is that, while thinking and talking about the particular problem, students build a context-sensitive structure of the processes, principles or mechanisms underlying the visible phenomena, which may help them understand the complex problems presented.

This constant supportive challenge of the level of metacognitive awareness, combined with the application of knowledge, skills and attitudes, encourages *"deep"* rather than *"surface"* approaches to learning by students. Students end up acting as reflective practitioners (Van Niekerk & Van Aswegen, 1993).

The underlying principles incorporated in this teaching methodology are:

- to shift learners towards independence for example moving away from the narrow world of the teacher and text;
- the development of analytic and creative thinking skills;
- the development of self-directed learning abilities;
- the encouragement of co-operative learning;
- the integrated application of skills and knowledge in the context of practice; and
- the encouragement or motivation to engage in learning.

Community-based education (CBE)

A community-based education programme is one that functions in partnership with communities and service providers. Exposure to this approach gives students the opportunity to understand the capacities and initiatives of the communities they serve. On the other hand, communities are also given the opportunity, through interaction, to understand the strengths and limitations of the health-care system, and in the process they may learn to take care of their own health.

The community-based education approach used by the School of Nursing can be classified as an interdependent, consultative, training-focused, and service-orientated programme. The levels of community, university, health-care service and student involvement are high.

Community involvement is considered to be high due to the community partnership programme. The communities were selected and prepared for community-based education by two lecturers, in collaboration with community leaders, in the community partnership programme. Community members accompany students in their communities to familiarise them with the environment and cultural activities and to assist them in interpreting patient data as some students are not familiar with the languages spoken in some communities. This service to the students is arranged by established committees.

Student involvement includes providing a health-care service; the involvement of the university is in the technical, financial and academic fields, and such involvement is enhanced through ownership and commitment to the community partnership programme. Facilities for rendering a health care service is provided by the Provincial Administration.

The unique opportunities for learning offered to students by this approach not only develops their ability to address the real health care needs of communities, but also develops their interpersonal skills, such as leadership characteristics, the ability to work in teams and compe-

tence to interact with communities.
It also provides opportunities to staff for improving student and programme assessment, such as the assessment of communication, management and leadership skills (see figure 2).

Conclusions and summary

This problem-based learning and community-based education approach has been considered as a developmental and support model for teaching/learning and seems to meet the needs of the students and communities. In teaching/learning, it involves facilitators, lecturers, student support services, communities and health-care services (see Figure 2). Because problem-based learning takes place in small-group context, students may be supported in their efforts to attend to their socio-economic, non-cognitive, psychological, health and lifestyle needs. Attention can also be paid in the small groups to learning cultural sensitivity, which is of great importance for political reasons in South Africa. Community-based learning contributed in no small measure to this dimension. The limitations of the teaching process that were highlighted by the external and internal factors discussed above are also addressed in this model.

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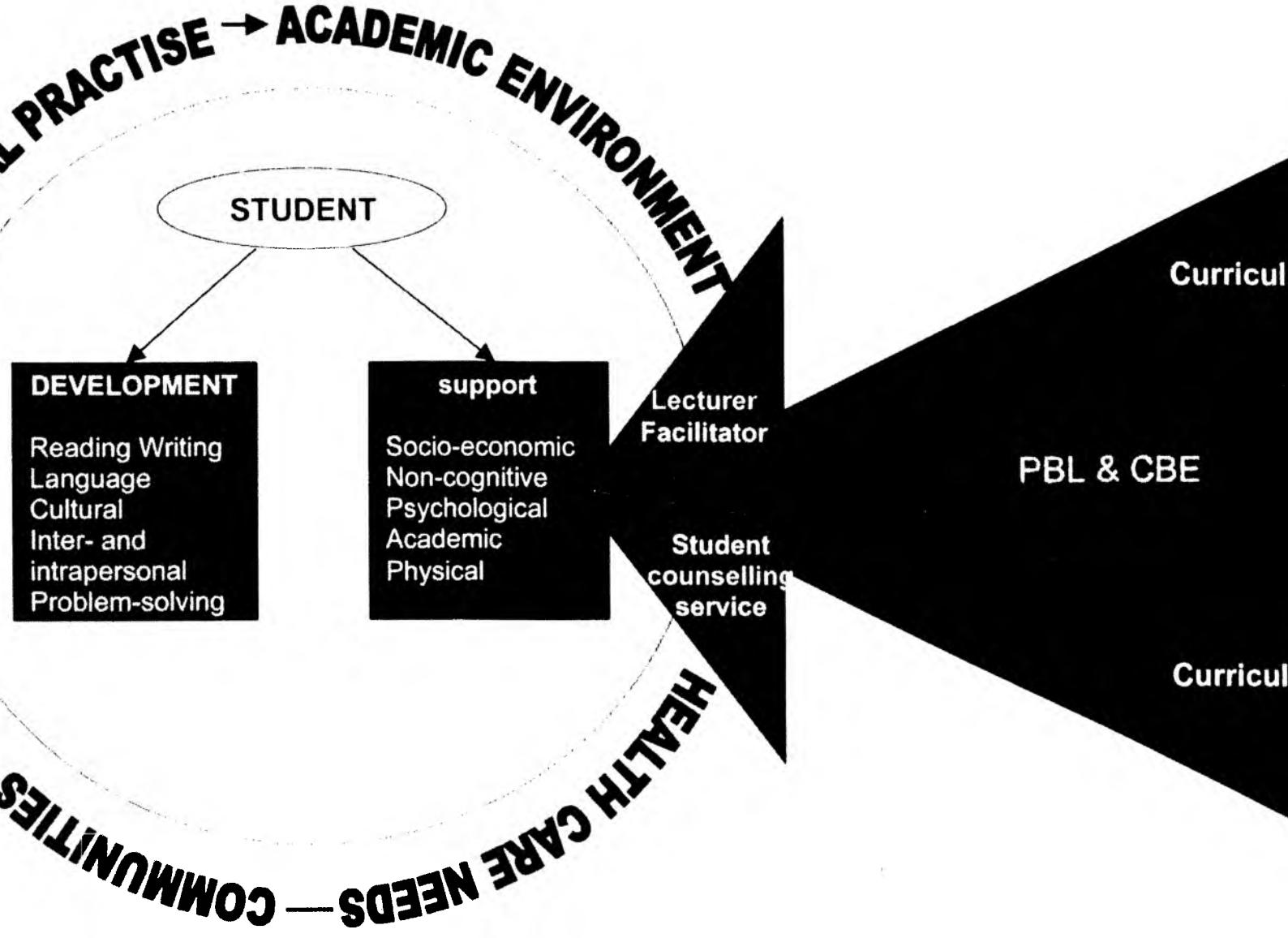

FIGURE 2: Developmental and support model for teaching/learning