

Active Methods of Teaching-Learning in the Health Area: the Problems in Nursing Education

ORIGINAL

Aretha Feitosa de Araújo^{1,2,3}, Myrla Alves de Oliveira¹, Josicléia Vieira de Abreu¹,
Eduardo Carvalho De Souza¹, Alice Maria Correia Pequeno¹,
Annatália Meneses de Amorim Gomes¹, Maria de Fátima Antero Sousa Machado¹,
Danilo Carvalho Rodrigues¹, Tatyane Oliveira Rebouças¹, Claudia Mendes Napoleão¹,
Ana Maria Araújo Salomão¹, Guilherme Bruno⁴, José Maria Ximenes Guimarães^{1,2}

Abstract

Introduction: Currently, educational institutions are inadequate in preparing health professionals for the social demands of the Brazilian health system. Because of this, educational institutions have been encouraged to reform their didactic and pedagogical practices and develop processes that, among other things, have equity, recognise the health needs of the population and foster multidisciplinary teamwork. These education reforms are seen as necessary steps for changing the health care model.

Objective: To describe the applicability of active methodologies, such as the learning strategy of the Charles Maguerez Arc in nursing education.

Method: This is an experience report, conducted in a State School of Professional Education in the macro-region of Cariri, of Ceará state, Brazil. The participants were 38 students from the nursing course integrated to the high school, aged between 13 and 15 years. The problematization methodology through the Charles Maguerez Arc was used. The activity was divided into four parts. First, a presentation to the participants was given, followed by an explanation of the problematization strategy and the Charles Maguerez Arc. Then a text was read to the students to get them thinking about an issue and the class was divided into small groups for the implementation of the Arc. Finally, there was a presentation by the groups on these Arcs.

- 1 Programa de Mestrado Profissional Ensino na saúde - CMEPES -Universidade Estadual do Ceará-UECE, Ceará, Brazil.
- 2 Grupo de Pesquisa Vida e Trabalho - UECE.
- 3 Grupo de Pesquisa - GPCLIN - Universidade Regional do Cariri/URCA. Ceará, Brazil.
- 4 Universidade Federal do Ceará. Brazil.

Contact information:

Aretha Feitosa de Araújo.

Programa de Mestrado Profissional Ensino na Saúde- CMEPES.

Address: Universidade Estadual do Ceará - Av. Dr Silas Muguba 1700, Campus do Itaperi, Fortaleza- CE. Cep 60740-000.

✉ Aretha.feitosa@gmail.com

Results: The application of the Charles Maguerez Arc as an active methodology of teaching and learning enhanced the development of group discussions. Starting from the elected problem of high school dropout, the keywords identified were vocation, motivation, family adaptation, bullying, self-esteem and interpersonal relationships.

Final considerations: The class showed collaboration while engaging in this work, proving that the implementation of active methods in health education is feasible at the technical level. The previous organization and systematization of the meeting facilitated the development of the proposal, and the explanation of the problematization method through the Charles Maguerez Arc facilitated the activity process and reflection.

Keywords

Active methodologies;
Education in Health; Nursing.

Introduction

Currently, educational institutions are inadequate in preparing health professionals for the social demands of the Brazilian health system. Because of this, educational institutions have been encouraged to reform their didactic and pedagogical practices and develop processes that, among other things, have equity, recognise the health needs of the population and foster multidisciplinary teamwork. These education reforms are seen as necessary steps for changing the health care model [1].

Health education should be based on the existence of real problems and on the decentralization of care and should meet the demands of the population. Thus, new types of methodologies need to be used in the teaching process, in a multidisciplinary way, so that students become autonomous, critical and responsible for building their own knowledge [2].

In Brazil, initiatives from the Ministry of Health in partnership with the Ministry of Education launched a new perspective on higher education in health, aiming through the Law of Guidelines and Bases of National Education (LDBEN) to encourage the discovery of existential problems and re-

soluteness in providing specialized services to the population [2].

In this context, the curriculum guidelines for health-care courses established that professionals should be trained through skill development, emphasizing the importance of attending to social demands, especially in the National Health System. In this sense, educational institutions must use practices based on andragogy, an adult educational methodology aiming to consolidate practices in a multidisciplinary context and perceiving both the teacher and the student as co-constructors of knowledge [4].

This guiding principle of adult learning involves active methods of teaching and learning based on interdisciplinary teaching models, which allow flexible, direct and democratic interactions between the teacher and the student. It surpasses the traditional method of transmission pedagogy and have a view to build student autonomy, enabling them to face the problems that confront them in reality [5].

The act of learning requires a reconstructive procedure whereby the relationship between facts and objects triggers resignifications, encouraging the construction of collective knowledge and allowing each person to exercise their autonomy, arguments,

ethics and citizenship as factors capable of changing reality. This is in contrast to the educational models of traditional pedagogy [6].

Disciplinarity must give way to interdisciplinarity, and active methods will be the new challenge for education [7].

Active methodologies promote action-reflection-action, where the student seeks to become more active in the pursuit of learning, facing unusual situations that require analysis to reach a final result, for example, reflection on their praxis [5].

Active methods use the problematization strategy as a teaching-learning method in the real context of a problem. The students are encouraged to seek solutions to such problems, and are able to examine, reflect and relate their findings to their practices. They will therefore have the autonomy to create opportunities, build their knowledge and make decisions [1].

Given the above, in the face of large contributions stemming from the use of active methodology, the questions are: Can the problematization developed by the Charles Maguerez Arc method help the reflection of the problematization in education? Can this method be understood as a strategy for teaching and learning?

The work is justified by the possibility of developing a practical activity in which active methodologies could be used, especially problematization. Therefore, it is believed that it can be used as a subsidy to other professionals who want to learn or deepen their knowledge on the use of active methodologies in nursing education.

Thus, the objective is to describe the applicability of the primary active methodologies as a learning strategy, by applying the Charles Maguerez Arc in nursing education.

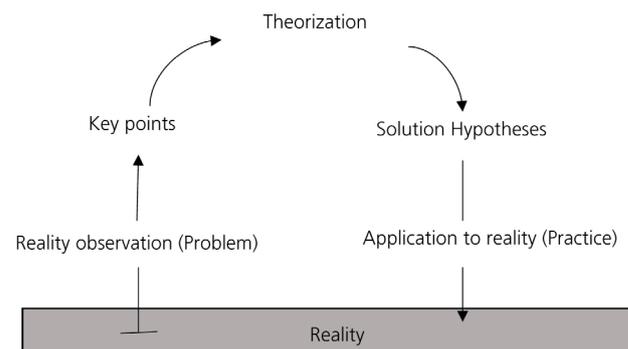
Method

This is an experience report, conducted in a State School of Professional Education in the macro-region of Cariri, of Ceará state, Brazil. The participants

were 38 students from the nursing course integrated to the high school, aged between 13 and 15 years.

To achieve this work, the problematization methodology through the Charles Maguerez Arc was used. In this method the teacher's role is to encourage the student to engage in situations that require analysis and reflection and to indicate key points of reality observation, theory and solution hypotheses, leading to the development of a critical-reflexive and transformative logic of knowledge, applicable to practical reality [8]. The Charles Maguerez Arc is described below, in **Figure 1**.

Figure 1: Charles Maguerez Arc. Source: BERBEL 2012-Adaptation.



This work resulted from the application of the Charles Maguerez Arc at the State School of Professional Education in the macro-region Cariri, of Ceará state, Brazil. The Charles Maguerez Arc was used as a strategy for reflection on high school dropouts, because according to the teacher's reports, student dropout was considered a problem for this course.

The Arc method was developed by Charles Maguerez and consists of the following steps: observation of reality, highlighting key points, theorizing, solution hypotheses and application to reality. These steps provide participants with a critical reflection by questioning the reality of the topic to be discussed [9].

The activity was divided into four parts. To begin, we gave a presentation to the participants followed by an explanation of the strategy of problemati-

zation and the Charles Maguerez Arc. Then, the students were read a text to stimulate their thinking about an issue and the class was divided into small groups for the implementation of the Arc. Finally, there was a presentation by the groups on these Arcs.

As shown in **Figure 2**, the intervention was done through phases of initial contact with students, dialogue-display, reading text with the groups and subsequent application and presentation of the Arc.

Initially, there was a presentation for all who were present. Then the reason for the activity was explained, emphasizing its goal and justifying the choice of the class.

After this, we explained the problems that can arise in the school context of professional education, the problematization strategy as a tool for reflection on reality and problem solving and the use of Charles Maguerez Arc. Following this, a guiding text was read to arouse reflections and detect the problem.

The guiding text used was developed based on reports from teachers that student truancy was a problem in the institution. The text was written in a story format with dialogue and led the students to perceive the problem for themselves. All students realized and identified with the problem, highlighting that it was part of the group reality, since in just three months of school, two students had already given up and others were thinking about it.

Following the discussion of the problem, the class was divided into three groups. Although there was no set number of participants in each group, the division was needed to implement the problematization method. Each group had a facilitator to clarify doubts and conduct the proposal. After the time spent in small groups, there was a presentation of the synthesized discussions through the Charles Maguerez Arc, illustrated on wooden paper for the whole class.

Figure 2: Intervention description.

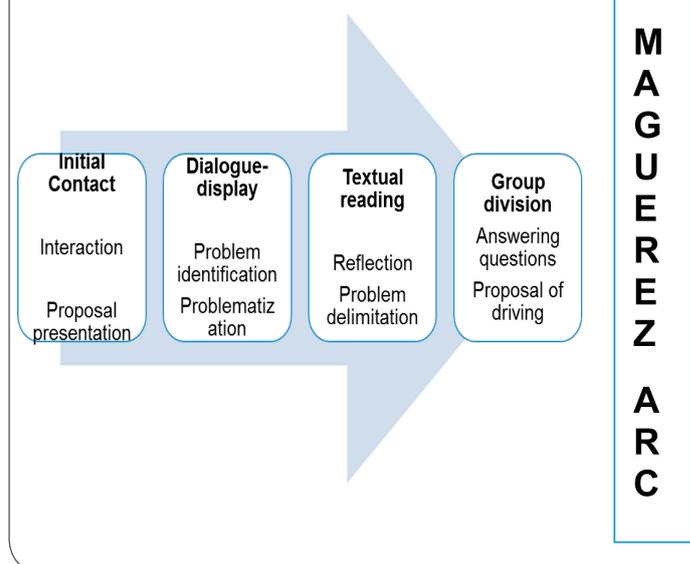


Table 1. Keywords identified from the Charles Maguerez Arc. Metropolitan region of Cariri, Ceará, Brazil, 2014.

Groups	Keywords
Group 1	Vocation, family, adaptation, friends, bullying and disappointment.
Group 2	School dropout
Group 3	Adaptation, family and feeling

Results and Discussion

As discussed above, the method used, the Charles Maguerez Arc, provided an opportunity for group discussions, with the points discussed shown in **Table 1** below.

Group 1 was well articulated in the discussions, respectful of the opinions of others and organized. Decisions were always consensual and the activity achieved the proposed objectives. By consensus, their discussions were summarized in six key words: vocation, family, adaptation, friends, bullying and disappointment.

With the word “vocation” students highlighted that school dropout was due to lack of affinity to the area. They started the course and realized they did not like the it and, then, gave up.

The second word was family. In this topic the group reported that full-time classes contribute to family separation because they spend all day at school and when they come home at night they have to either continue studying or are tired and need to sleep.

The third word was adaptation, highlighted because of the difficulty in adapting themselves to the routine of full-time classes. These students left a part-time school to begin at another school that has full-time periods, thereby entering into an unfamiliar study routine.

Friends was the fourth word defined, because students' friends who are not enrolled in school complain of the absence of their friends due to studies.

The fifth word was bullying, which was emphasized because some students reported suffering humiliation by schoolmates, influencing their decision to leave school.

The sixth word was disappointment, which in the discussion, was directed towards the course. The initial prospects that students have about the course do not correspond to reality. All members of the group thought they would have more practice and contact with the daily realities of the profession, but this did not occur.

Following the Charles Maguerez Arc, the regiment and school operating mode and the familiar profile and theories about vocation or career guidance were cited as points of future studies. As a solution hypothesis, group members cited the development of motivational seminars, of activities focused on interpersonal relationships and hiring a psychologist for the institution.

Group 2 remained devoted to the proposal throughout the work. All members contributed their ideas, generating several discussions around the issue of truancy.

Following the Charles Maguerez Arc, keywords were raised to understand the school dropout problem and the lack of motivation that leads to students losing interest in the course: low self-esteem,

presented through negative thoughts such as "I will not get it"; the bullying suffered by some students, presented mostly as verbal abuse; the interpersonal relationship problems arising from the intense interaction between members of the group; the organization of subjects in order to promote changes in the amount of established hours for certain subjects; the amount of content becoming excessive and complicating the organization of the studies; lack of time for family and friends as a consequence of full-time classes; the difficulty in adapting to full-time classes because most students come from part-time schools; and social issues such as family illness or difficulties.

In the theory, Group 2 cited the need for studies on the organization of courses and its standards, human rights, human relations, education and ethics.

The group proposed the following solutions: better personal organization, to allow the conciliation of studies, leisure time and family time; a dialogue with students' families so that they would encourage continuity of the course; a dialogue among teachers; the development of more dynamic classes so they are more attractive and less tiring; the development of leisure and entertainment activities at break time; and the development of activities to improve communication and interaction within the classroom.

The third group accepted the proposal from the beginning, and participated and contributed to the discussions. The method of problematization was easily understood and applied.

What was expressed by members of this group can be summarized in three key words: adaptation, family and feeling. Adaptation, also discussed in the other groups, referred to the difficulty in adapting to full-time classes and the routine of travelling between cities.

The second word was family, since the displacement and full-time classes generate a gap in relation to family life, triggering feelings of family isolation.

The third word was feeling, representing personal experiences related to family difficulties, affective

and interpersonal relationships. This group discussed that personal problems can contribute to school withdrawal.

As theorising proposal, students indicated the individuality. It can be studied through theoretical indication on personality and interpersonal relationships.

After this theoretical indication, the group recognized personal maturation as a proposed solution, which can be developed by confronting difficulties and by integrating interpersonal activities with the class. The Projeto Vida (Life Project) was identified as an action that favours this personal growth, as it facilitates dialogue, develops resilience and favours the motivation for professional achievements.

The methodology of problematization is considered an innovative strategy in education, based on the thoughts by Paulo Freire. This method seeks to strengthen the process of teaching and learning, placing the student in touch with reality and primed for the production of knowledge, based on the scheme created by Charles Maguerez, named Charles Maguerez Arc [10].

A starting point for the development of the Arc steps, is the observation of reality, a critical moment in life. This step has been previously identified in work experience reports as searching for a practical field and method application. Problem identification was presented to the students of the technical nursing course in this practice environment through a text simulating a real situation. From this, the problem was identified by everyone, and pointed to the school dropout problem.

With careful observation of the problem, the students listed the key points. Following this, there was theorization by studying the key points. This step could not be strictly worked as there was not enough time to develop it, however, topics were studied deeply enough to contribute to the problem reflection.

After theorizing, solution hypotheses were built from ideas of reality, creativity and originality [9]. At

this point in the process, the students should have been able to overcome the knowledge of existing actions to build new knowledge and actions, aiming for social change. Although the groups identified the same problem, some key points discussed were different and, therefore, the solution hypotheses encompassed different dimensions.

The last stage of Charles Maguerez Arc would be the application to reality. This step was not a requirement, because the activity would not guarantee its applicability due to having just one meeting. However, one of the groups identified an existing practice, the subject "Life Project", able to be enhanced by inserting themes that goes back to the solution hypotheses.

From an existing social practice, there was an extensive reflection process on one of the problems detected and, then, return to the part of the reality from where the problem was extracted, with some practice, this time more informed, intentionally transforming. It is a proposal of active work, which involves a lot of reflection -so it is also critical- and is complemented with some degree of reality transformation [11].

Research should be implemented to give visibility to situations like these. However, although scientific production has been increasing in Brazil, significantly increase with the proper training of health professionals who work with research in project management [12, 13].

A limiting factor of the study was lack of time for theorizing, as the groups were unable to carry out the theoretical research to propose informed and applicable solutions. It was also identified that theorizing was the step that was less understood by the groups.

Conclusion

The objective of this study was to describe the application of Charles Maguerez Arc as a problematization strategy in education in nursing. The class

work showed collaboration and participation, proving that active methods in health education are feasible for application at the technical level.

The prior organization and systematization of the meeting facilitated the development of the proposal and the previous explanation of the problematization method using the Charles Maguerez Arc facilitated the activities conduction and reflection on reality. The problem of school dropout was decided on in advance. However, we realize the problem was specific to this class, since two students had given up and there was prospect of future abandonment.

The development of the activity was characterized by an intervention on reality, because as we reflected on the problem supported by the Charles Maguerez Arc, the group members were sharing experiences and perceptions and proposing solutions for themselves and other students to face the problems. During the presentation of the arcs for the whole class, groups were encouraging colleagues not to give up and pointing out aspects that the class needed to change in order to maintain good relations and support others.

The use of Charles Maguerez Arc proved an effective strategy for reflecting on a real problem and was innovative in supporting participation and appreciation of student perception.

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