Didactic Sequences as an Educational Product to Facilitate Teaching-Learning Processes in Lato Sensu Graduate Courses in the Area of Health Management in Primary Care

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Abstract

Teaching strategies can be considered as techniques that are constructed to be used with the objective of promoting teaching and learning in the classroom, so that the teacher is considered a mentor, as he is the one who selects, analyzes, studies, organizes, builds and proposes the most classic tools to facilitate the learning process [1]. This study is an experience report related to the construction of an educational product that consists of the elaboration of pedagogical strategies, characterized by five didactic sequences in the perspective of collaborating with teaching-learning processes in lato sensu graduate courses. The themes that are part of the didactic sequences were built based on the results obtained in scientific research carried out during the development of the strict sensu postgraduate course in Teaching in Health and Technology, which involved: the work of coordinators who work in the field of health management in Primary Care, situations that challenge the management of Primary Care and the potentialities of work in the management of Primary Care. The didactic sequences have fun teaching strategies that provide meaningful learning for a future qualified professional performance. These sequences involve the use of active methodologies and the use of digital tools. The educational product developed seeks to promote benefits that can collaborate with the improvement of Primary Care Management and teaching-learning processes in the training of health professionals. Therefore, the pedagogical strategies, as well as its entire construction process, were developed through the collaboration of professors of the Health and Society discipline at the State University of Health Sciences of Alagoas (UNCISAL), seeking to make it qualify for effective construction of knowledge and that promote its wide use in the academic environment.
1. Introduction

Strategy “means the art of applying or exploiting the favorable and available means and conditions, with a view to achieving specific objectives” [1]. And, teaching strategies can be considered as techniques that are constructed to be used with the objective of promoting teaching and learning in the classroom, so that the teacher is considered a mentor, since he is the one who selects, analyzes, studies, organizes, builds and proposes the most qualified tools to facilitate the learning process [1].

The construction of pedagogical strategies that rely on the use of innovative active methodologies starts the student through a pedagogy that focuses on creativity and proposes to make them critical, reflective, and humanized and with the ability to solve problems in a qualified way [2]. The use of active methodologies is presented as a possibility of critical and reflective development, in which the student plays the role in their learning process, stating that these methodologies have their efficiency recognized and suggested by the Ministry of Education, as well as other educational institutions [3]. These methodologies prove to be important for society as they enable an approximation of theory to practice in real day-to-day problems [3].

Teaching strategies are presented as important tools for the teaching-learning process and are considered a parameter for teachers’ performance [4]. It is worth noting that quality training, classroom experience and theoretical mastery are not the only elements necessary for a good teaching performance. It is necessary that the teacher has knowledge about tools that make it possible to attract students’ interest to the subject and the teaching-learning process, associating themes to be worked with real scenarios [5]. The evolutionary process of information and communication technologies has generated several changes and created possibilities in all areas of society. In the educational field, these technologies have been increasingly used and have produced changes in the teaching and learning processes, in a personalized, social and flexible way [5].

Several teachers have created ways to use information and communication technologies in their classroom spaces in order to enable quality and dynamism in the teaching and learning process. These teachers consider that qualified training for the labor market needs to be based on the autonomy of individuals, ethics, politics, culture and citizenship, so that it is possible to produce a more meaningful, promising, dynamic teaching process with new learning in the entire educational process [6]. Considering these references, the didactic sequences were constructed with the main objective of promoting teaching and learning related to health management in Primary Care, within the scope of lato sensu.
2. Methodology

The construction process of the educational product was carried out in two stages: 1) the production of didactic sequences based on the results obtained in a scientifically exploratory study, with a qualitative approach, developed with Primary Care coordinators, and 2) the validation of the educational product by doctors in a master’s thesis defense committee.

The construction of didactic sequences was developed to assist training in the health area for the management of Primary Care. The process of planning and choosing the product was linked, above all, to the need for training in management evidenced through the results obtained in scientific research carried out by the author of this paper with coordinators of Primary Care, in cities in the state of Alagoas, in Brazil, in which identified weaknesses in the coordinators’ initial training path [7]. The coordinators who participated in the study in question had training in the health area, however, access to content related to health management during the undergraduate course was considered insufficient or absent during the training process [7].

It should be noted that the work of managing Primary Care has a complexity that makes it necessary to master management content and the singularities of the health sector. It is necessary that the professionals who can work in it develop such skills [8].

In addition, the process of planning and choosing the product considered possibilities for accessing and sharing the product. The systematization of the content of the didactic sequences was built based on the work that is developed by Primary Care coordinators, which in the study showed planning, monitoring and evaluation actions. To this end, the coordinators had planning as a fundamental resource for achieving expected results and for dealing with conflicts and unexpected circumstances. However, planning methods and techniques were not specified by the study participants, although many characteristics presented were related to the assumptions of strategic-situational planning [7].

The systematization of the content of the sequences was also based on the difficulties and potential presented by the Primary Care coordinators in the aforementioned study [7]. As for the difficulties, the difficulties facing the COVID-19 pandemic scenario stand out, which were identified problem situations that resulted in a high degree of limitation of Primary Care during the period of health crisis. Emphasizing the need for protagonism and strengthening of its actions in the face of possible other health crisis scenarios.

Didactic sequences were also elaborated based on complex situations experienced by Primary Care coordinators participating in the study. Among the main problems identified, the difficulty in effecting intersectoral articulation, the difficulty in articulating the health care network; the lack of social facilities; and the lack of communication between professionals. As for potentialities, Perma-
Nent Health Education (PEE) was evidenced as an object of transformation of work processes, highlighting the importance of implementing EPS in a continuous way to guarantee the qualification of these processes, justifying the construction of didactic sequences that can collaborate with the training of health managers [7].

The validation of the educational product was carried out by an evaluation panel, composed of four professionals with doctoral degrees, in a session for the defense of a dissertation, which had as its theme: “Challenges and potentialities of health management in Primary Care: portrait of the case of municipalities alagoanos.”, on January 27, 2023, by the Professional Master’s Degree in Teaching in Health and Technology at UNCISAL.

It is important to highlight that the illustration, as well as the layout and design are extremely important to guarantee the readability and understanding of the textual information [9]. The educational product was made available in its final version in digital media and free of charge to interested readers and other health professionals who passed the educational product through the eduCAPES portal, through the link: https://educapes.capes.gov.br/handle/capes/724277 [10].

The educational product has five didactic sequences structured in the same organization, for example, didactic sequence 4 will be presented, as can be seen in Table 1.

3. Results and Discussion

In the evaluation of the didactic sequences as an educational product by the evaluating board, some requirements were taken into account for their approval, such as the social importance of the themes addressed in the didactic sequences, the quality of their compositions, the language used, their applicability, whether the objectives proposed were based on a theoretical and methodological framework, as well as the adequacy of the product to the target audience for whom it is intended and if it has learning potential. The approval of each sequence was carried out by the evaluating board, after analysis of the aforementioned requirements, which were inserted in the author’s dissertation, in addition to an argument after the oral presentation of the educational product.

After its approval, the structuring of the educational product resulted in five didactic sequences that have varied pedagogical strategies according to each theme that was proposed, which emerged from the analysis of the work of coordinators who work in health management in Primary Care, with highlight the challenges and potential faced by such coordinators, as follows:

Didactic sequence 1, thematic: What the Primary Care coordinator does.

In this didactic sequence, the pedagogical strategies proposed were: Proposed pedagogical strategies: diagnostic activity, which consists of a dynamic that uses a questioning to be carried out by the teacher to identify the knowledge that students have in relation to Primary Care Management. The consequences of
Table 1. Organization of didactic sequences.

<table>
<thead>
<tr>
<th>Sequential didactic</th>
<th>Corresponds to the theme of the didactic sequence</th>
<th>Difficulties facing health crisis scenarios</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contextualization</td>
<td>Presentation of the pedagogical strategies proposed in the didactic sequence in question</td>
<td>Primary Care in Brazil has faced difficulties during the COVID-19 pandemic, which are related to public health management in a scenario that precedes the health crisis [11]. As the SUS was already dealing with political/administrative deficits before the pandemic, the health crisis ended up having a higher degree of limitation than expected, especially when compared to other health systems in which management is well coordinated in its financial and bureaucratic sphere [11]. Given the importance of this theme, this didactic sequence was constructed to collaborate with the training of future professionals who will be able to work in health management as coordinators of Primary Care, with the aim of bringing them closer to these difficulties that are being experienced during the pandemic and the way in which Primary Care has been organized in the midst of the health crisis, so that they can build reflections that will qualify their future professional practices. In this didactic sequence, the active methodology will be used as a teaching/learning strategy, which allows the student a more participatory posture, with active involvement in solving problems and developing projects, which creates means for the effective construction of knowledge. The methodology to be used will be the inverted classroom, where the student studies the content in advance and the classroom becomes the place of active learning, with the development of practical activities, questions, discussions and the receipt of feedback to be developed by the teacher [12].</td>
</tr>
<tr>
<td>Target audience</td>
<td>Who is the didactic sequence intended for</td>
<td>This teaching strategy can be used in lato sensu postgraduate courses in the health area that contain in their curricular matrices contents related to Public Health Management in the scope of Primary Care of the Unified Health System (SUS).</td>
</tr>
<tr>
<td>Prior knowledge</td>
<td>Knowledge that students need to have previously acquired to participate in that didactic sequence</td>
<td>- Principles and guidelines of Primary Care; Primary Care in the Health Care Network; Attributions of Primary Care Professionals; Work process in Primary Care. - What the Primary Care coordinator does: Work Management; Work Process Management; Management of Permanent Education in Health; Information Management in Primary Care; Resource and Technology Management; Results Management. - Permanent Health Education in Primary Care. - Health Care Networks and their interface with the work of the Primary Care coordinator.</td>
</tr>
</tbody>
</table>
### General objective and specific objectives

Objectives that the didactic sequence proposes to be achieved

**Main goal:** Develop learning related to Primary Care in a scenario of health crisis, through the use of an active methodology that can affect the construction of knowledge in a collaborative way, through the participation and active involvement of students, to enable qualified future professional practices in the coordination of the Basic Attention.

**Specific objectives:**
- Know the difficulties being faced by Primary Care during a health crisis;
- Learn about experiences of how Primary Care has reorganized its work processes to face a health crisis scenario;
- Identify the contributions of Primary Care in the face of a health crisis;
- Build new possibilities so that Primary Care can effectively deal with health crises.

### Predicted time

Expected duration for the development of the didactic sequence

The teaching strategy will take place in four class hours in the classroom, according to the following organization:
- One hour dedicated to class discussion related to the materials studied at home, with mediation to be carried out by the teacher through questions constructed through the difficulties identified in the evaluation activity developed before the class by the students and, division of the class into small groups with presentation the activity proposed for the classroom: presentation in a creative way, in groups, of how Primary Care in municipalities can effectively organize themselves to face health crises;
- Two class hours for the groups to build their presentations in a creative way;
- One hour of class for group presentations and feedback from the teacher.

### Student management

Preparation of students in the classroom for the development of the didactic sequence

Initially, students should be in the organization in a circle format for the discussion moment. After the discussion, in a second moment, the students should be grouped in small groups for the development of the activity. And, in a third moment, the students should form a circle to carry out the group presentations and close with feedback from the teacher. The teacher should be the mediator at all times.

### Didactic resources

Physical space and materials that will be used

Physical space: It is recommended to use a large classroom, in order to allow better organization and arrangement of small groups and a single circle with the whole class. Materials: Cardboard, pilots, A4 sheets and pens.
One week before the class, the teacher should provide scientific articles with the contents to be studied by the students and ask them to respond to the evaluation activity that consists of a synthesis of the contents responding to the questions prepared by the teacher.

Link suggestion for scientific articles:
- [https://rbmfc.org.br/rbmfc/article/view/2665](https://rbmfc.org.br/rbmfc/article/view/2665)

Suggested questions for the evaluation activity:
- Based on your studies, how do you identify the role of Primary Care in facing a health crisis?
- What are the difficulties encountered in the experiences of Primary Care in facing a health crisis and which are in common with the difficulties that you have already been able to identify in the municipality where you live?
- What were the contributions of Primary Care in facing the health crisis that you identified in the study material? In the municipality where you live, was it possible to identify other contributions? If yes, describe them. If not, justify your answer.
- How did Primary Care reorganize its work processes to face a pandemic? What has changed?
- Do an analysis of the strategies that have been used by Primary Care to face a health crisis?

The evaluation activity must be recorded by the students in a file in pdf format and sent to the teacher via email two days before the class. In this way, the teacher will be able to access the students' productions and find out what were the reflections made and what were the critical points of the studied materials that need to be resumed in the classroom.

Moment 1 (Class 1: 1 hour): Initially, the teacher should provide feedback on the activities, with a subsequent opening of a moment of discussion related to the critical points identified by the teacher in the evaluation activities. The teacher should go back to certain points of the contents to facilitate the discussion. Students should be encouraged to participate. The teacher must inform the time allotted for the moment.

Moment 2 (Classes 2 and 3: 2 hours): The teacher must present the next activity to be developed in the classroom: a creative and group presentation of how Primary Care in municipalities can effectively organize themselves for the coping with health crises. Then, the teacher should divide the class into small groups and request the development of the activity. The teacher must inform the time allocated for the activity.
Moment 3 (Class 4: 1 hour): After completing the construction of the presentations by the groups, the teacher should ask the whole class to organize their chairs in the shape of a single wheel. Then, the teacher must draw randomly the order of presentation of the groups and inform the time allotted to each group for presentation.

After each presentation, the teacher can pose some questions to the class and mediate small discussions. At the end of all presentations, the teacher should provide feedback from students and close the class.

Students’ learning will be evaluated by the module/discipline teacher continuously at all times through the proposed activities. The evaluation will add up to 10 points, to be distributed as follows: 4 points—in the development of the evaluation activity; 2 points—contribution in an argumentative way during discussions in the classroom; 4 points—active participation in the construction and presentation of the group activity.

The active methodology adopted in this didactic sequence as a teaching-learning strategy enables the student to be the protagonist of his own learning, through engagement in practical activities, which lead the student to develop his critical and reflective capacity related to the proposed contents, in addition to learn to interact between the class and the teacher, to exercise their argumentative capacity, to explore their ideas and creativity and, above all, to build knowledge in a collaborative way.

To this questioning will be the starting point for the class; expository class with dialogue, which consists of the use of slides that include content related to what the Primary Care coordinator does, namely: Work Management; Work Process Management; Management of Permanent Education in Health; Information Management in Primary Care; Management of resources and technologies and Management of results available at:

https://docs.google.com/presentation/d/1zXNOaGhb4OHkSK0NdU1r1_GU4LwX3Sd8/edit?usp=sharing&ouid=106484067035280244783&rtpof=true&sd=true; associated with the slides, the use of twenty triggering questions is proposed to encourage dialogue during the lecture; an evaluative activity is also proposed to be used after the lecture, which consists of using a quiz available on the Kahoot learning platform and which has questions in two formats, with “true or false” and “multiple choice” alternatives. All questions are related to the content that will be worked on during the expository dialogue class and can be easily accessed through the search tool available on the platform itself: Evaluative Activity—Primary Care Management. Platform access link: https://kahoot.com/schools-u/.

And, at the end, the evaluation by the students of the methodologies used by the teacher, which consists of using the Poll Everywhere platform to evaluate the strategies that were used in the class by the teacher.
It is worth mentioning that the use of digital tools in the classroom can help the educational process. Among the digital teaching tools available, platforms, cloud storage and virtual exercises stand out as important in helping the teaching-learning process [13].

Didactic Sequence 2 has as its theme: Permanent Education in Health as a strategy for strengthening the management of Primary Care.

The pedagogical strategies proposed for this sequence are: conversation circles with the reading and discussion of materials related to the theme of the didactic sequence and subsequent collaborative writing of text in the classroom and outside it, through the use of the text editor Google Docs as a digital tool that enables the collaborative construction in a synchronous and asynchronous way among students. Students must build a text guided by a question to be asked by the teacher. And evaluation by the students of the methodologies used by the teacher, which consists of using the Poll Everywhere platform to evaluate the strategies that were used, as well as the conduction of the class by the teacher.

It is noteworthy that the use of digital tools such as Google Docs favors, in addition to an effective learning process, the expression, understanding and communicative efficiency of students [14].

The didactic sequence 3 has as its theme: Health Care Networks as a strategy to guarantee access and qualification of care management.

The pedagogical strategies proposed for this didactic sequence are: group reading, with subsequent discussion in a circle to be mediated by the teacher, using seven triggering questions proposed by the authors; the individual construction of small reviews on the content discussed during the class, so that the review can be used creatively as an educational resource to sensitize professionals, managers and the entire population about the importance of the subject, through the use of platforms digital; and the use of the Poll Everywhere platform to evaluate the teaching-learning strategies used, as well as how the teacher conducted the class.

In this didactic sequence, the active methodologies, proposed among the pedagogical strategies, are related to the perception of a teaching and learning process that relies on the active involvement of students in conducting their own learning, through different ways that enable effective participation in this process, aiming at quality learning [15].

Didactic sequence 4, as already detailed in Table 1, has as its theme: Difficulties facing health crisis scenarios.

In this didactic sequence, the active methodology was also proposed as a teaching-learning strategy, which allows the student, a more participatory attitude, with active involvement in problem solving and project development, which creates means for the effective construction of knowledge [12].

Didactic sequence 5 has as its theme: Case study related to complex situations experienced by Primary Care coordinators.

The proposed pedagogical strategies are: group case study, which proposes the
study of a case constructed based on complex situations that are experienced by Primary Care coordinators, along with guiding questions that aim to favor the construction of solutions for the case; group presentation, which consists of presenting the solutions constructed by each group in the class for the case, as well as arguments based on theoretical content already worked on in the classroom.

It is argued that the case study is a teaching strategy used, mainly, in the involvement of real case problems and in reflective situations. This fact enables significant learning possibilities, such as the ability to generate discussions addressing problem situations and obtaining elements that allow decision-making and the proposition of innovative solutions, associated with its investigative characteristic that makes it possible to solve real problems [16].

The organization of didactic sequences to be worked on in the classroom, within the scope of postgraduate studies, were ordered, structured and articulated activities to achieve educational objectives, with the purpose of training professionals able to work in the management of Primary Care health. However, a constant restructuring of educational products is necessary, taking into account who they are intended for and their respective contexts, as educational products are producers of knowledge, both for those who participate in their construction and for those who are intended [17].

It is noteworthy that offering training processes, both initial and continuous, that contribute to professional updating, is a task of institutions linked to teaching [17].

Given the above, the didactic sequences proposed to facilitate the teaching-learning process can guarantee the construction of knowledge in a collaborative way between the teacher and the students. Enabling students to actively explore the proposed and worked theoretical concepts and develop their applicability in future practices. From this perspective, it is also expected that more educational products will be published in order to be widely disseminated and shared with the academic community, so that educational practices remain grounded in access to information.

4. Conclusion

The elaboration of the educational product was one of the possibilities identified for the development of qualified teaching-learning processes in the classroom, in the lato sensu graduate program. The product aims to meet the training gaps found by the authors. However, it is worth mentioning that the study had limitations, such as the absence of an analysis that could evaluate the application of the sequences in a real scenario, considering this was not the objective of the study, since the objective was mainly related to the construction of the didactic sequences, which started from the need to build an educational product that could provide training for health professionals who wish to work in the field of health management in Primary Care. It is also noteworthy that new products need to be developed using different strategies that also enable qualified training for profes-
sionals to act as coordinators of Primary Care in the Unified Health System.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References


