ABSTRACT: Objective: To identify teaching strategies that facilitate nurses’ training according to the views of nursing students. Method: A quantitative, descriptive and cross-sectional study carried out in three universities in the south of Brazil, through a semi-structured questionnaire, with 258 nursing students, in March and April, 2014. Data were analyzed by descriptive statistics using absolute and relative frequencies. Results: Regarding teaching strategies, it was found that the audiovisual resources: 67 (33.16%), dynamic classes: 67 (33.16%), discussion of scientific articles: 60 (29.70%), group work 47 (23.26%) were the strategies that facilitate learning during lecture classes. Less cited teaching strategies included seminars, summaries (students are asked to summarize what they learned in previous classes) and discussion of scientific articles and case studies. On facilitating strategies, 48 (20%) students sought other learning opportunities in addition to those offered in the undergraduate program. Conclusions: It is concluded that the nursing students perceive many facilitating methods as teaching strategies. The strategies most often reported were dynamic classes, group work and problematization.

DESCRIPTORS: Nursing; Nursing education; Higher education; Learning; Nursing students; Nursing professor.

TEACHING STRATEGIES IN UNDERGRADUATION IN NURSING: A DESCRIPTIVE STUDY

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Estratégias de Enseñanza en la Graduación en Enfermería: Estudio Descriptivo

RESUMEN: Objetivo: identificar estrategias de enseñanza facilitadoras para la formación del Enfermero en la visión de discentes de enfermería. Método: estudio cuantitativo, descriptivo y transversal, que se realizó en tres universidades del sur de Brasil, por medio de cuestionario semiestructurado, con 258 discentes de Enfermería, entre marzo y abril de 2014. Se analizaron los datos por estadística descriptiva con frecuencias absolutas y relativas. Resultados: sobre estrategias de enseñanza, se verificó que las facilitadoras del aprendizaje durante aulas teóricas se asociaban a los recursos audiovisuales 67 (33,16%), aulas dinámicas 67 (33,16%), discusión de artículos 60 (29,70%), trabajos en grupo 47 (23,26%). As estrategias de ensino menos citadas foram: seminários, resumos de aulas anteriores e artigos, estudo de caso. Sobre estrategias facilitadoras, 48 (20%) discentes buscaram outras oportunidades de aprendizado além daquelas oferecidas no currículo da graduação. Conclusiones: conclui-se que os discentes consideram múltiplas formas facilitadoras utilizadas como estrategias de ensino, sendo as mais citadas aulas dinâmicas, trabalhos em grupo e problematização.

DESCRIPTORES: Enfermería; Educación en enfermería; Educación superior; Aprendizaje; Estudiantes de enfermería; Docente de enfermería.

Estratégias de Ensino na Graduação em Enfermagem: Estudo Descritivo

RESUMEN: Objetivo: identificar estrategias de ensino facilitadoras para a formação do Enfermeiro na visão de discentes de enfermagem. Método: estudio quantitativo, descritivo e transversal, realizado em três universidades do sul do Brasil, por questionario semiestructurado, com 258 discentes de Enfermagem, entre março e abril de 2014. Os dados foram analisados por estatística descritiva com frequências absolutas e relativas. Resultados: sobre estratégias de ensino, verificou-se que as facilitadoras da aprendizagem durante aulas teóricas relacionavam-se aos recursos audiovisuais 67 (33,16%), aulas dinâmicas 67 (33,16%), discussão de artigos 60 (29,70%), trabalhos em grupo 47 (23,26%). As estratégias de ensino menos citadas foram: seminários, resumos de aulas anteriores e artigos, estudo de caso. Sobre estratégias facilitadoras, 48 (20%) discentes buscaram outras oportunidades de aprendizado além daquelas oferecidas no currículo da graduação. Conclusões: conclui-se que os discentes consideram múltiplas formas facilitadoras utilizadas como estratégias de ensino, sendo as mais citadas aulas dinâmicas, trabalhos em grupo e problematização.

DESCRIPTORES: Enfermagem; Educação em enfermagem; Educação superior; Aprendizagem; Estudantes de enfermagem; Docente de enfermagem.
INTRODUCTION

Nursing academic training has been historically influenced by the nursing profession, from its construction based on the concept of discipline of European models to the current changes in the health and educational systems of many countries. Thus, in an educational context where training is rather conducted in innovative settings, multiple pedagogical practices ranging from the most traditional to the most unique and different ones are adopted (1,2).

In nursing training, students are expected to be prepared to reflect on and transform health or disease circumstances, in order to improve the quality of life of people and society in general, thus contributing to the transformation of the healthcare conditions available to the population. Thus, one of the main roles of school is to enable students to develop skills throughout their professional career (2-3).

Nursing education should be understood as a process elaborated by professors, students, health service providers and the community. In this sense, health and educational practices, which support the teaching structure, curricular planning, contents, assessment techniques and learning settings should be seen of as a participatory process. Integral and interdisciplinary education allows the acquisition of skills that propitiate actions targeted to the human beings in their subjectivities. Based on critical-reflexive reference frameworks, which favor a connection with reality, the construction of the curriculum can offer learning based on real life situations (4).

Therefore, teaching and learning methods must be associated to the work universe and to the needs established for the training of health professionals, promoting the development of teamwork skills, communication, know how to act and learn to learn (5). Nursing professors are supposed to facilitate and mediate this process, through the use of active teaching strategies (4-6).

In the present study, we decided to use the term strategy, because of its broader connotation, despite the conceptual differences between this word, the techniques, the methods and the educational resources. The nursing professor must offer several teaching strategies, possibilities to structure their communication with undergraduates, to add content, to interact with the students in a classroom and in distance learning and to evaluate them. Therefore, each educator can choose the way that seems most appropriate to him/her of combining the multiple technologies and methodological mechanisms, through a pedagogical planning that is consubstantiated in the teaching plan (7).

Pedagogical practices should contribute to improve learning and stimulate students to seek methods that will help them become more participatory and critical individuals in their training process (8). Thus, the active methodologies can be favorable to learning, since they are based on the development of the learning process, making use of real or simulated experiences in order to successfully solve the obstacles arising from the basic exercises of practice, in multiple social contexts (9).

Given the importance of this subject for the training of nurse practitioners, the present study aims to identify teaching strategies that facilitate nurses' training according to the views of students. For this purpose, the following guiding question was elaborated: what are the teaching strategies that facilitate the training of nurses according to the students?

METHOD

Descriptive cross-sectional study with a quantitative approach conducted in a public university and two private universities in southern Brazil.

The study population consisted of 359 students. Of these, 258 students enrolled in three public and/or private higher education institutions (IES) in the city of Curitiba-PR participated in the study. In public higher education institution (IES) A and in the private higher education institution C, the subjects of the course are arranged by semester, and in IES B, they are arranged by series. Regarding the courses offered, the nursing course of IES C is offered in the evening shift and the courses of the other institutions are delivered in the morning shift. Data was collected from March to April 2014. The confidence level was 95%, and the sample error margin was 5%, considering 50% of heterogeneity.

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The inclusion criteria were as follows: students regularly enrolled in the undergraduate nursing course of the institution where the study was conducted in the 2\textsuperscript{nd}, 3\textsuperscript{rd}, 4\textsuperscript{th} or 5\textsuperscript{th} years. First-year students were excluded.

For data collection, two semi-structured questions related to the identification of strategies that facilitate students’ learning were elaborated. The questionnaire was submitted to a pre-test. Data was organized in a spreadsheet with the use of CALC application version 4.1, which includes statistical functions, available in OpenOffice.org, and analyzed using descriptive statistics by absolute (n) and relative frequencies (%) distribution of the items investigated.

The study was previously approved by a research ethics committee, under protocol no 231.163. Also, the Free and Informed Consent Form was signed by the participants.

\textbf{RESULTS}

Of the 258 students who participated in the study, 120 (46.51\%) were enrolled in institution A; 78 (30.23\%) in institution B and 60 (23.25\%) in institution C. Of these, 223 (86.43\%) were female, 32 (12.40\%) were male and three (1.20\%) did not report the gender. Regarding the mean age, it was 24.2 years in institution A; 28.6 years in institution C, and 24.5 years in institution B.

Regarding the answers related to teaching strategies, the strategies most reported by the students as facilitators of learning during lecture classes were mainly audio-visual resources, dynamic learning strategies, discussion of articles and case studies, among others, as described in Table. It was found that 56 (27, 72\%) participants did not answer the question.

<table>
<thead>
<tr>
<th>Strategies</th>
<th>N (202)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio-visual resources: slides/movies / images / blackboard /theater</td>
<td>67</td>
<td>33.16</td>
</tr>
<tr>
<td>Dynamic classes: drawings/models/group dynamics/exercises solving/use of dynamic materials/special resources</td>
<td>67</td>
<td>33.16</td>
</tr>
<tr>
<td>Discussion: scientific articles/examples of real lifesituationsand debates</td>
<td>60</td>
<td>29.70</td>
</tr>
<tr>
<td>Works/Group works/research</td>
<td>47</td>
<td>23.26</td>
</tr>
<tr>
<td>Theory and practice/practical class/demonstration/active repetition/content review</td>
<td>29</td>
<td>14.35</td>
</tr>
<tr>
<td>Dialogic lecture/active participation of students</td>
<td>28</td>
<td>13.86</td>
</tr>
<tr>
<td>Problematization/critical thinking and professor duly trained to approach the subject / knowledge/didactics</td>
<td>19</td>
<td>9.40</td>
</tr>
<tr>
<td>Reading: texts/articles/books/previous reading of the content/historical context</td>
<td>13</td>
<td>6.43</td>
</tr>
</tbody>
</table>

The least mentioned teaching strategies include seminars (3.46\%), summaries of previous classes and articles (2.47\%), case study (1.98\%), round table (1.98\%), lectures (0.98\%), writing (1.48\%), other materials (1.48\%), unspecified (0.99\%), workshops (0.49\%), simulation (0.49\%) and article elaboration (0.49\%).

Regarding the strategies that facilitate learning, the students were asked whether they had already sought other learning opportunities in addition to those offered in the undergraduate curriculum, and the answers were as follows: 167 (67.61\%) students answered yes, 80 (32.38\%) answered no and 11 (4.26\%) left the box blank. Table 2 details these opportunities. Also, 18 (18.08) students did not answer the question.
Table 2 – Extracurricular learning opportunities. Curitiba, PR, Brazil, 2014

<table>
<thead>
<tr>
<th>Answers</th>
<th>n (240)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extension: long/short courses, PET-Health, extracurricular/volunteering</td>
<td>100</td>
<td>41.66</td>
</tr>
<tr>
<td>Other opportunities: reading, videos, research, space for representatives of students, multidisciplinary activities, permanency scholarship, forum of leaders in the university, professional experience, talks with other professionals.</td>
<td>48</td>
<td>20</td>
</tr>
<tr>
<td>Teaching: lectures, symposia, seminars, health campaigns, workshops, trainings, conferences, forums.</td>
<td>36</td>
<td>15</td>
</tr>
<tr>
<td>Research: scientific initiation, research/studies group, monitors.</td>
<td>30</td>
<td>15.5</td>
</tr>
</tbody>
</table>

**DISCUSSION**

Regarding the teaching strategies that facilitate the teaching-learning process during lecture classes, the most common answers in this study highlight the variety of resources, such as: audiovisual resources; dynamic classes; discussion; work/group work/research; interactive dialogic lecture/active student participation; theory and practice/practical class/demonstration/active repetition/content review; problematization/critical thinking and professor trained to approach the subject/ knowledge/didactics; reading.

The insertion of different media during the construction and reconstruction of knowledge in nursing is recognized as important, since it allows learning through various potentialities and skills of the students, and also collaborate in group learning\(^8\).

The use of multiple audiovisual resources as a teaching or complement strategy requires early planning. As an example, literature brings the film as a complement to teaching, but it requires planning in the selection, since the media must contain relation with the content to be approached\(^10\). Thus, when this resource is chosen, it is necessary to discuss important points of content before, during or after the presentation of the film, since the use of video alone as a methodological resource may favor learning gaps.

Another facilitating strategy, according to the students, are dynamic classes. This is a significant strategy, since the nursing training process must be implemented in an active way, given that the nursing profession requires dynamic professionals in all its fields of activity. Therefore, it is necessary to encourage students to develop and improve these characteristics\(^11\).

Group dynamics is an important part of the strategy of dynamic classes. The nursing field involves continuous relationships between the individuals, and thus, throughout their training, nursing students must be aware of the need to establish many relationships. Group dynamics motivate group/team interaction, thinking about the subjects addressed in the classroom, interaction and exchange of knowledge with the professors. They advocate an interactive, dialogic and constructive view of the actors involved in the teaching and learning process\(^11-13\).

This strategy can also facilitate the relationship with new professors and disciplines, favoring student/teacher interaction and reducing the feelings of resistance to the changes that affect the students. In addition to promoting learning, group dynamics are important for the development of characteristics/abilities necessary to the nursing profession\(^11\).

Another strategy present in the students’ responses was the discussion of articles/case studies, real life situations and debates. By promoting the reading that underlies the construction of knowledge about health and nursing practice. By promoting the reading that supports the construction of knowledge about health and nursing practice and supporting the formulation of arguments used in debates, these strategies facilitate student learning in classroom\(^13\).

Individual and group activities in the classroom were cited by students as facilitators of learning. In group activities, professors observe the multiple characteristics of the students or groups of students.
in different stages of the learning process. Therefore, the professor becomes part of the group and his/her main role is to facilitate the development of academic activities\(^\text{[14]}\).

Group work is dynamic because it is established through interpersonal relationships that sometimes involve contrasting actions and feelings\(^\text{[15]}\). In addition, the strategy favors the learning process and corroborates the feeling of self-fulfillment of students who are asked to perform the functions of others and acquire new knowledge\(^\text{[14]}\).

Thus, there is greater interaction between the members of the group, which makes the activity more active and participatory, since the students collaborate by sharing their personal experiences and knowledge\(^\text{[15]}\). Besides, there is also the challenge of interacting with the students, because while the strategy helps them developing interpersonal relationships, it also allows them to deal with certain conflicts arising in these interpersonal relationships in the group, within the logic of teamwork.

Dialogic lecture classes was another strategy recognized as a facilitator by 28 (13.86%) students. This teaching technique where professors expose orally the objectives, contents and methodologies to be developed, has positive aspects. By exposing a primary view of a particular subject, this technique is appropriate for those students who have not acquired a full knowledge of the topic developed and can learn more in lecture classes than in reading activities\(^\text{[13]}\).

When theory and practice are related, their proximity is perceived, and this makes it easier for nursing students to solve issues and systematize care; on the other hand, when there is no connection between theory and practice, students’ learning can be impaired. Thus, during theoretical classes, it is necessary to promote interactions between theoretical knowledge and real-life situations with which students will have to deal in their professional practice\(^\text{[11-12]}\).

Problematization was also reported by 19 (9.4%) students. This is a strategy aimed at solving problems, as well as promoting the construction of knowledge by stimulating and expanding the meaning of the elements associated to reality or to the professional area. It promotes the reflective theory-practice relationship\(^\text{[12-13]}\). Problematization aims to contribute to improve the training of the professionals, so that they are fully capable to perform their professional activities and ready to learn to learn throughout their lives always from an ethical and humanistic view and with social responsibility, essential qualities in the structuring of the Unified Health System\(^\text{[14]}\).

Problematization facilitates learning, as it favors attitudes that make individuals more dynamic, independent, innovative, able to reflect critically, cooperate, and more able to assess their performance, and the development of their communication capacity. This improves their relationship with others and their ability to continue learning in the course of life. However, for the success of this strategy, it is necessary to develop the competence of teamwork, promoting the sharing of information among the different professionals, focusing on the well-being of the patients and users of the health service\(^\text{[8,15]}\).

Another strategy mentioned by the participants was learning through the reading of texts, a strategy that depends on the professors’ and students’ views of a given subject. This strategy requires that the students have some skills to be able to use the topics learned effectively in practice. Thus, professors play an important role in coordinating and promoting reading activities among the students to improve the assimilation and understanding of the subjects taught\(^\text{[13]}\).

The reading habit makes it easier for students to understand texts related to the area and the profession, and this can be useful during graduation and in their professional careers. However, besides being capable of establishing a relationship between the text read and their fields of activity, students should also be able to transform themselves, becoming active in their process of learning, being inquiring, critical and dynamic\(^\text{[16]}\).

As for other out-of-class learning opportunities sought by the students, those related to teaching, research and extension prevailed. This association involves actions where knowledge structuring is expanded, being longer limited to the connection of knowledge structured in disciplines. The association between teaching, research and extension aims to train professionals capable of critical thinking in their daily work process\(^\text{[17]}\).
Extension activities can be useful in the process of teaching, learning and knowledge construction, allowing the involvement of nurses, professors and students in these projects. Extension also contributes to improving the health conditions of individuals and the population.

According to 36 (15%) students, extracurricular teaching is taught through lectures, symposia, seminars, health campaigns, workshops, trainings, congresses, forums, among other means of learning, and provides a constant educational process. It promotes dialogical learning by undoing the linearity and organization of thought. In addition, extracurricular teaching is transformed in valuable learning when the students devote themselves entirely (with feelings, ideals, habits and values of the university community and in the professional sphere) to their work in the complex healthcare area.

Another strategy that deserves mention is research, since nurses gain access to extensive technical and scientific knowledge and can think critically about such information in order to decide how to use it more effectively in their professional practice. In this regard, scientific initiation also provides training and stimulates the use and production of research during undergraduation.

This strategy improves the nurses’ professional training and performance by stimulating questioning and critical thinking skills in these professionals, who develop skills necessary to perform scientific research. These skills are not only important in the academic scenario, but also in professional practice.

In this process, professors commit themselves to guide the students’ learning when they select a given pedagogical practice. The professors are also supposed to have pedagogical skills for teaching and stimulating students to become co-responsible for the learning process. Students should be motivated to fill any possible gaps in their education, especially through extracurricular experiences, reading activities, and participation in research and extension projects. The development of technical skills should also be stressed here, as these skills are required in the workplace.

One limitation of the study concerns the fact that the instrument used focused on traditional teaching strategies. However, other current innovative strategies, e.g. simulations, with or without specific equipment, could also be included.

**CONCLUSION**

Analysis of the results obtained indicates that the students perceive the multiple forms of strategies that facilitate learning in the training process. Therefore, professors should diversify their teaching strategies, to enable students to become more involved in the subjects taught, and students should also be responsible for seeking ways of improving their learning process.

Dynamic classes, group work and problematization were found to be methodologies that facilitate teaching, since these strategies make it easier for nursing students to develop skills required in their future professional activities.

Among the extracurricular opportunities, the research was highlighted as an enabler of learning during the graduation and seen as valuable for the student, with respect to their curriculum as a future professional, since those students who engage in research acquire differentiated competencies to perform in the health area. The promotion and search of resources for research is an institutional function, associated with support for teachers.

Although research activities were the strategy most frequently reported in this study, extension and teaching were also mentioned, which may imply that students are aware of the importance of seeking other forms of learning, in addition to those offered by the educational institution.

For more insights into this theme, further studies at national level are suggested to verify any possible differences among the Brazilian regions.

**REFERENCES**


