CASE REPORT ARTICLE

WARMUP OF JUST IN TIME TEACHING IN POSTGRADUATE EDUCATION

ABSTRACT
Objective: to describe the use of Warmup in the Just in Time Teaching method, based on experience in a master’s degree seminar. Method: a qualitative, descriptive, experience-based study focused on the contribution of Warmup, a component of the Just in Time Teaching method, in the planning and execution of a seminar on the discipline of the Master’s Degree in Nursing with a class of 11 students. Results: experiments were described on responses to Warmup and influences on classroom adjustment; the Warmup possibilities and limits of experience. The responses of the students were analyzed and the answers were identified as shallow answers and a primary knowledge. Conclusion: with the Warmup, the students were given the opportunity to develop, reach the maximum of knowledge, strengthen their professional training and improve their prior knowledge, and developed the necessary skills to perform in the areas of Nursing a critical, reflective and creative way. Descriptors: Methodology; Nursing Education; Warmup; Strategies; Information Technology; Informatics in Nursing.

RESUMO
Objetivo: descobrir o uso do Warmup, no método Just in Time Teaching, com base em experiência vivenciada em seminário de disciplina do mestrado. Método: estudo qualitativo, descritivo, do tipo relato de experiência, focado na contribuição do Warmup, componente do método Just in Time Teaching, no planejamento e na execução de seminário em disciplina do mestrado em Enfermagem com uma turma de 11 alunos. Resultados: descreveram-se as experiências sobre as respostas ao Warmup e influências no ajuste de aula; o Warmup - possibilidades e limites da experiência. Analisaram-se as respostas dos alunos e identificaram-se respostas poucos profundas e um conhecimento primário. Conclusão: com o Warmup, oportunizaram-se, aos alunos, o desenvolvimento, o alcance da máxima do conhecimento, o fortalecimento de sua formação profissional e o aperfeiçoamento do conhecimento prévio e desenvolveram-se as capacidades necessárias para a atuação nas áreas da Enfermagem de uma maneira crítica, reflexiva e criativa. Descriptores: Metodologia; Educação em Enfermagem; Warmup; Estratégias; Tecnologia da Informação; Informática em Enfermagem.

RESULTADOS
Conclusão: en la contribución del Warmup, componente del método Just in Time Teaching, en la planificación y en la ejecución de seminario en asignatura del máster en Enfermería con un grupo de 11 alumnos; se describieron las experiencias, sobre las respuestas Warmup e influencias en el ajuste de la clase; el Warmup - posibilidades y límites de la experiencia. Se analizaron las respuestas de los alumnos y se identificaron respuestas poco profundas y un conocimiento primario. Conclusión: con el Warmup, se proporcionaron a los alumnos, el alcance, el desarrollo de la máxima del conocimiento, el fortalecimiento de su formación profesional y el perfeccionamiento del conocimiento primario y se desarrollaron las capacidades necesarias para la actuación en las áreas de la Enfermería de una manera crítica, reflexiva, reflexiva y creadiva. Descriptores: Metodología; Educación en Enfermería; Warmup; Las estrategias; Tecnología de la Información; Informática en Enfermería.

RESUMEN
Objetivo: describir el uso del Warmup, en el método Just in Time Teaching, con base en la experiencia vivida durante el seminario de asignatura de la maestría. Método: estudio cualitativo, descriptivo, del tipo relato de experiencia enfocado en la contribución del Warmup, componente del método Just in Time Teaching, en la planificación y en la ejecución de seminario en asignatura del máster en Enfermería con un grupo de 11 alumnos; se describieron las experiencias, sobre las respuestas Warmup e influencias en el ajuste de la clase; el Warmup - posibilidades y límites de la experiencia. Se analizaron las respuestas de los alumnos y se identificaron respuestas poco profundas y un conocimiento primario. Conclusión: con el Warmup, se proporcionaron a los alumnos, el alcance, el desarrollo de la máxima del conocimiento, el fortalecimiento de su formación profesional y el perfeccionamiento del conocimiento primario y se desarrollaron las capacidades necesarias para la actuación en las áreas de la Enfermería de una manera crítica, reflexiva, reflexiva y creadiva. Descriptores: Metodología; Educación en Enfermería; Warmup; Las estrategias; Tecnología de la Información; Informática en Enfermería.

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INTRODUCTION

It is understood the importance of the transformation in Nursing education at the postgraduate level in which the practice of the Nursing professional is associated with a critical-reflexive individual capable of acting and proposing changes in the daily life of his work(1,2). Therefore, in this article, Warmup was described as a component of the Just In Time Teaching (JITT) cycle because it was identified the relevance of the students' prior knowledge about the subject addressed during the seminar and later the contribution to build- if a personalized lesson. In this way, innovative teaching methods and pedagogical practices were adopted and adapted to encourage these professionals to remain in constant reflection on their actions and planning based on reality. It was pointed out that in this process, the educator's performance is not the only determinant for the success of such methodologies: students must also become autonomous and responsible for learning.3

The method of teaching Just-in-Time Teaching (JITT), Teaching under Measure (ESM), is a 1996 proposal, by Professor Gregory M. Novak and colleagues, following the principles of the "Flipped Classroom", pedagogical model in increasing diffusion in higher education.4

The development of the JITT was started when a text was sent by the teacher to the student for study, with a questionnaire that is answered via the internet, according to the previous knowledge of the students. The answers are used by the teacher in the construction of the lesson. After that, of these students' answers, one starts off with the preparatory tasks and establishes a valuable feedback for the teacher, since these make possible adjustments and organization of the class and focus on the main difficulties manifested by the students.5,6

The JITT method is applied to any field of study and it has been adapted for the development of postgraduate classes. The students were encouraged, through JITT, to prepare for the class and, with this, they promoted active learning, as they identified the strengths, weaknesses and learning styles of the students.4

Part of this knowledge of the teacher is given especially by Warmup, a component of the JITT that differed from the traditional model of teaching because it contemplates a range of possibilities of questions that approach concepts, vocabulary, estimation of scientific studies, to specific questions of content that works in the classroom, according to the particular characteristics of the class in which the method was developed.7

OBJECTIVE

- To describe the use of Warmup, in the Just in Time Teaching method, based on experience in a master's discipline seminar.

METHOD

A qualitative, descriptive study of the experience report, focused on the contribution of Warmup, a component of the Just in Time Teaching method, in the planning and execution of a seminar in discipline of the master's degree in Nursing with a class of 11 masters. In the class, predominantly female subjects, aged 35 to 50 years, from the Nursing care area, teaching at a higher level and teaching coordination.

In the teaching plan of the discipline, the following objectives were emphasized: to reflect, to argue, to know the origins and the development of the main theories and pedagogical conceptions that have guided the educational practice in health and Nursing; exercise critical thinking, deepen and study the Brazilian policies for the training of health and nursing professionals; discussing policies, technologies and management planning in Health and Nursing Services.

It followed the proposal of the discipline, of pursuing these objectives, building seminars with the masters. Five themes were suggested by the teacher and they were drawn to groups that were formed by free choice of masters. Here, the experience in developing the theme "Nursing training and regional integration - MERCOSUR" was reported. Regarding the method used in the seminar, the teacher was consulted about a teaching method appropriate to the subject and then the Just in Time Teaching.

The method was indicated after the teacher inquired about a methodology that favored the teaching-learning process in course of masters considering the profile of the group of learners and collaborators of
shared knowledge. The challenge was to find a motivational strategy in which the masters sought to delve deeper into the subject by learning and sharing their knowledge with colleagues within a discussion space during the seminar.

Thus, a plan for the seminar was elaborated with the following objectives: (1) to associate globalization with the composition of the Economic Blocks from a perspective of higher education in Nursing; (2) identify MERCOSUR regional integration comprising the socioeconomic and educational interrelations of member countries; (3) describe the process of Regional Accreditation of University Nursing Courses in Mercosur (ARCU-SUL); (4) propose solutions to reduce the educational disparities of higher education in Nursing in MERCOSUR member countries.

In order to enter the first stage of the JiTT, research was carried out on databases and texts that related globalization, MERCOSUR and the training of nurses. In this way, the Warmup and the discussion in the room were based. After the search, the articles entitled “MEXa and the Regional Integration of Mercosur” and “Mercosul in Nursing career” were selected. The construction of the educational integration of MERCOSUR member countries, highlighting the different educational processes of these countries, origin, development and the importance of MEXA as an experimental mechanism in this process of integration of teaching the “MEXA and the Regional Integration of Mercosur” was discussed.

However, in the “Mercosur education in the Nursing career”, globalization was contextualized in MERCOSUR, in which the evolution of the educational integration of MEXA to ARCU-SUL was emphasized and Nursing was particularly involved in the process of work, education and accreditation. It should be noted that these texts were previously sent online to the students and the search for other sources of research was encouraged.

The following questions were then addressed to the students: a) What is Globalization and how can it influence Nursing? and b) How do you believe that nursing education is happening in MERCOSUR member countries? Students had to respond to the questionnaire within 24 hours before class.

At this moment, Warmup was informed of the students’ prior knowledge of the subject matter, thus adding to the concepts discussed and addressed in the actual time of the seminar. It was determined, with the answers of the masters, the level of understanding, previous knowledge and possible misconceptions discussed in the classroom.

It should be noted that the students signed a Free and Informed Consent Term (TCLE) based on the research project “Management in Nursing: new approaches to training and work in public universities and teaching hospitals”, approved by an ethics committee under or CAEE 69390017.4.0000.0017.

RESULTS

Based on the evaluation after the Warmup, the seminar was developed that was developed within the master’s classroom. It should be noted that this report of experience was limited to focus on the contribution of Warmup describing experiences.

♦ Responses to Warmup and influences in class setting.

The first questioning was previously related to the concept of Globalization, at which moment the following statements were returned from the students:

- **It is the “village” because we do not have distances, we live in the same village. Information and communication without barriers. Influence Nursing as it aggregates knowledge and volume of information. (M1) Globalization is being interconnected, connected with the world. In Nursing, you can influence communication, the search for information and how the world walks and is acting in the face of change, what is new in Nursing, in publications and in research. (M2)**
- **It is the interconnection and interaction between people around the world through cultural manifestation, exchange and trade [...] Globalization influences and helps Nursing in the exchange of knowledge and dissemination of doubts and new discoveries experienced in practice. (M3) It is economic, cultural, social and political integration among nations influenced by capitalism. In Nursing, as in other professions, it is necessary to meet the growing demands of a globalized world. (M4) Globalization can be understood as a complex and plural phenomenon with economic, social, political and cultural...**
Dimensions. Because of this plurality, there is a conflict of discourses about its impacts on society. (M5)

During the speeches, the understanding about the process of globalization on which primary concepts were based was evidenced. In addition, there were difficulties presented by students in situating Nursing in this process, and should explore the professional contextualization and academic formation unified by the countries of the bloc of which they are part: MERCOSUR.

The seminar was continued, starting from this previous knowledge, addressing on what was globalization, the origin of this process and its importance for the world. The positive and negative points that globalization brought, as well as the need to form economic blocks not only to develop economically and commercially, but also to the smooth flow of people, professionals and others, were highlighted. It is worth emphasizing the nursing reflection in this context focused on the production of knowledge and for technological and assistance advances, besides the migratory flow of professionals and academics that occurred between members of the economic bloc.

At that moment, the current profile of the nurse was drawn, which was characterized as being of a higher level (licensed and bachelor’s degree) working in the following areas: Assistance, Administrative, Teaching Manager (technical and higher level) and of research. After that moment, he returned to the other question: How do you believe that Nursing education is happening in Mercosur member countries? The answers follow below:

Different from the Anglo-Saxon and European reality, still focused on the hospital-centric and positivist model. (M1)

I believe that much like Brazil, large-scale people seeking education. We can not say whether or not it exists. And also with accelerated but uncontrolled growth. (M2)

There is a certain exchange of undergraduate and postgraduate courses, but it needs to be more stimulated, increasing the supply and access to education for people. (M3)

I believe that the universalization of knowledge is occurring, but it is still in full integration of the professional practice, it is still studied abroad, but [the diploma] needs to be validated in the country of origin. (M4)

Nursing education in the Mercosur is still short of the need of the current context, as it imports American care models that often do not apply to the reality of teaching and Nursing assistance. (M5)

Based on these statements, there was a discussion about the training of health professionals and the validation of their diplomas in Mercosur member countries, at which time the debate on the MERCOSUR Regional Accreditation System for Undergraduate Courses (ARCU- SUL), the result of an agreement between the Ministers of Education of Argentina, Brazil, Paraguay, Uruguay, Bolivia and Chile, approved by the MERCOSUR Common Market Council through Decision C.17 / 08.

DISCUSSION

◆ The Warmup: possibilities and limits of experience

There are possibilities and limits in postgraduate teaching at the masters level. The challenge was to be able to prepare a seminar for master's students as a compulsory criterion of the discipline and to contribute to the training as future teachers.

There was much discussion about the varied possibilities of innovating within the classroom, among which is Warmup, in which it was highlighted as a contribution to the freedom of teaching and learning where the student is primordial in this process of knowledge construction and left a stimulus to the rescue of the experience with the intention of perfecting itself to the maximum on the subject. It looked for the pedagogical questions that happen during the class. Mainly, what was intended with the method at the moment of Warmup, in which the previous knowledge of the student was involved in the content that the teacher gave, helping to make this knowledge of the student able to discuss and discuss the subject.

It was also noticed that, during the time of the Warmup, only five of the eleven students sent the answers to the previous questions. Thus, the first difficulty was found when using Just in Time Teaching, more specifically the Warmup phase,
because in this type of teaching-learning methodology the active participation of the students in the construction of the joint knowledge and more in depth is required.4

Another difficulty was encountered in the face of the students' speeches: the lack of knowledge about important concepts about globalization in the seminary. Such prior knowledge has not become sufficient for a more in-depth discussion on the subject in which geographical aspects (Economic Blocks - Mercosur), Educational Integration among MERCOSUR member countries, nurses education, globalization and Nursing, topics fundamental to the theme in question.

The purpose of the ARCU-SUL System is to permanently improve the training of people with the quality standards required for the promotion and economic, social, political and cultural development of the peoples of Mercosur. This accreditation process is the result of an evaluation in which universities have the independence to voluntarily join and the candidate must be exposed to rigorous internal and external evaluation process. It lasts for six years, being recognized throughout Mercosur territory and enables the certification of academic quality. It should be clarified that the accreditation process does not replace the validation of the diploma, but facilitates it.8

It was noticed that the majority of the students did not fulfill the activity of previous reading of the texts provided before the seminar justifying the reasons that range from the lack of time, to the lack of access to the internet. During the seminar, a forty-minute time was needed for the reading and interpretation of articles later shared in groups. After that moment of reading, the discussion began in a more in-depth way involving all the important and necessary aspects of the training of nurses in MERCOSUR. It was observed a greater engagement of the students in the discussions, becoming active participants in the formation and construction of knowledge.

It was observed that the Warmup proposal did not develop in closed concepts, but it brought deep reflections and discussions through the students' previous speeches and knowledge, thus making the seminar more objective, dynamic, participatory and, above all, group content development needs.

Limits such as access to multimedia resources and the internet source made it difficult to use this method, since an online form with answers to the questionnaire's author's e-mail was used. Another limitation was pointed out regarding the working hours of the masters, which prevented the previous reading of the material and the answers to the online form, knowledge not acquired that were missing for the discussion in the classroom.

CONCLUSION

It was possible to describe the knowledge of the master's students on the subject of Nursing in MERCOSUR by the use of Warmup as a pedagogical component of teaching-learning and a superficial knowledge about the subject was identified when the answers were analyzed and the participation of a partial form of the class in relation to previously sent readings justifying work overload and difficulty accessing the internet.

Development of the maxim of knowledge, the strengthening of professional training and the improvement of prior knowledge were developed through the Warmup of the students, thus developing the skills needed to perform in the Nursing areas of a critical, reflective and creative way.

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