Reflective portfolio as evaluation and self-assessment instrument in the teaching process learning: Experience report

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Objective: to describe the experience of professors and students of the undergraduate nursing course in the use of reflective portfolio as instrument of assessment and self-assessment in the teaching-learning process. Method: experience report, with participatory observation of professors and students of the undergraduate nursing course at the University of the Amazon (UNAMA), Belém, State of Pará, Brazil, regarding the use of active methodologies in the construction of teaching in Urgency and Emergency, in the period from August 6 to December 22, 2019. Result: in this teaching-learning process, using active teaching
methodologies and formative evaluation, through the reflective portfolio, teachers played a fundamental role, acting as facilitators, emphasizing self-directed and student-centered learning. Such experiences provided the actors involved, teachers, students and managers, to see teaching as a privileged space, which allows constant interaction at the moment of integrating theory learned in the classroom with practice. Conclusion: the use of active teaching methodologies and consequent evaluation through the assessment tool, online portfolio, contributes to increase the self-confidence, self-knowledge and reflexive competence of students throughout the training process, in addition to providing theoretical-practical dialogue aimed at the profile of the professional that it aims to form.

Keywords—Teaching. Reflective portfolio. Active methods. Evaluation.

I. INTRODUCTION

In the current context of university education, the traditional models of teaching, learning and evaluation are put in check, which start from linear and verticalized premises, opening space for proposals that bet on a new approach to training, which increases a dialogical education among the actors involved, teachers, students and higher education managers(1).

The use of the portfolio in this process is a relatively current topic, which has been frequently and increasingly improved in different contexts and by researchers from different professional categories, a relevant fact for the real transformation of education in the health area(2).

Where collaborative learning is privileged, the autonomy of students, the processes of evaluation and self-evaluation, based on teaching proposals with creative activities and the partnership between students and teachers, among other elements that guide the process of teaching and learning, is not to cause strangeness that, more and more, teachers and managers of higher education are betting on assessment instruments that are also dynamic and reflective, that allow a meaningful teaching-learning, having the student as the main focus of the teaching-learning process(3).

In this perspective, the reflective portfolio falls within the context of training by skills and formative assessment, whose learning is based on constant and continuous feedback between teacher and student, and student-student. The results should focus on the process of building knowledge in a dialogical and creative way, transcending the cast and crystallized, punctual and classificatory paradigm used in the evaluations present in traditional teaching models(4).

Portfolio is recognized as both an instrument and an evaluation methodology. As a methodology, it requires teachers and students to assume a posture committed to a pedagogical practice based on the transformation and overcoming of adversities and challenges. In this perspective, the triad: critical about the construction of new knowledge, renewed synthesis of the knowledge plan and action in relation to the new synthesis elaborated. As an instrument, it fulfills the purposes of collecting and registering information, transcending the instrumental aspect, given that, under this focus, it gives rise to reflection on the relationship between theory and practice(3).

The evaluation in the teaching process must be permanent and planned, taking into account all the dynamics of the path that the student goes through during the learning process. In this context, there are conflicts with care situations, the perception of the world of work, inherent challenges to communication, requiring the exercise of listening and permanent reflection. The student is evaluated regarding their commitment, participation, motivation, capacity for reflection and critical thinking, which are the main factors for assessing academic performance. The subjectivity of interpersonal and intrapersonal relationships, and measurements between peers and groups are fundamental aspects that must also be considered in the evaluation field(5).

In this context, assessment instruments emerge, which are records of different natures, such as: tests, tests, works, scientific, intellectual and artistic productions of the students, based on the assumption that only what was taught could be evaluated(4).

Among different teaching assessment instruments present in university education, the reflective portfolio stands out as an innovative method, capable of leading students to pan and collect their opinions, doubts, difficulties, reactions to the contents, the studied texts and the techniques of teaching, feelings and situations experienced, offering subsidies for the evaluation of the student, the educator, the contents and the teaching and learning methodologies planned and implemented. In education, the portfolio presents several possibilities, with the main contribution to learning being built by the student himself, or group of students. Gradually, throughout the school semester, the student organizes his productions,
which show the trajectory of his knowledge construction process\(^{(3)}\).

Evaluation of the training process concerns the accompaniment of teaching and learning and, therefore, works as a mediating tool in this process, that is, it mediates the relations between teaching and learning, between teacher and student, and not least, the management of teaching. When carrying out the evaluation process, as a mediating and formative action, the teacher becomes a facilitating, reflective and guiding agent, monitoring the student's performance and analyzing his own work\(^{(3)}\). Thus, the portfolio allows the teacher to experiment with diversified alternatives, and reflect on the possibility of future use in their own professional practice\(^{(3)}\), confirming the role of the university, to develop, in students, cognitive, metacognitive, social, emotional, affective, motivational, technological and instrumental skills, enabling these competences become the priority object of the training apparatus.

In the meantime, the exercise of skills provided by the reflective portfolio stimulates the autonomy, the critical, reflective, creative and citizen spirit of the actors in training\(^{(3)}\), and it is on this theme that the present experience focuses. Thus, the objective of this work was to describe the experience of professors and students of the undergraduate nursing course in the use of the reflective portfolio as an instrument of assessment and self-assessment in the teaching-learning process.

II. METHOD

Report of experience with participative observation of professors and students of the Nursing Undergraduate course at the University of the Amazon (UNAMA), Belem, State of Para, Brazil, from August 6 to December 22, 2019.

The approach describes aspects related to the experience of academics in the seventh period of the undergraduate nursing course, with an emphasis on the activities developed in the curricular component "Nursing Care in Emergency and Trauma".

The institution's nursing course works with guiding principles in the curriculum that aim to develop attitudes and skills essential to health work. These axes intend to guide the training of nurses to meet the needs of the world of health work, prioritizing the profile of the nursing professional with critical-reflexive capacity and who can intervene on the locoregional health reality. It is guided by the nurse profile recommended in the National Curriculum Guidelines (DCN) of the Undergraduate Nursing Course, National Education Council, Higher Education Chamber, Resolution CNE / CES, of November 7, 2001, whose Article 3 points out how profile of graduate / professional traineeNurse, with generalist, humanistic, critical and reflective training. Qualified professional for the practice of Nursing, with scientific and intellectual rigor and guided by ethical principles. Able to know and intervene on the most prevalent health-disease problems / situations in the national epidemiological profile, with an emphasis on their region of activity, identifying the spiritual biopsychological and social dimensions of their determinants. Trained to act, with a sense of social responsibility and commitment to citizenship, as a promoter of the integral health of human beings\(^{(5)}\).

The curricular component "Emergency Nursing Care and Trauma" makes up the seventh semester of the course, has a theoretical-practical character, with a workload of 80 hours, seeks to develop in the student the skills and competences for nursing care for high-risk patients in urgency and emergency, in order to provide nursing assistance in pre-hospital, hospital and home emergencies, in addition to performing nursing procedures in the main emergency situations, using the nursing care instruments based on the assessment of the health status of the patient, individual, promoting clinical reasoning, through experiences in health institutions where the Nursing Process and Nursing Care Systematization can be applied, in order to understand health work. It is based on ethical, political, economic, cultural and social determinants for the recognition of health professionals as transforming care agents.

As it is a curricular component thought and dynamically structured, its evaluation requires instruments that can account for the construction of skills and competences necessary for the nurse's performance in this context, and that are not limited to classify or quantify the proposed and implemented activities.

We believe that when methodologically and reflexively formulating the evaluation process to be worked on, it is necessary to consider the programmatic contents, the bibliographic material, the laboratory practices, the experiences in the health services, the teaching supervision, the apprehension of skills and competences, the building academic identity with the course, breaking paradigms and understanding the role of the academic as an active subject in the teaching-learning process.

The choice to use the portfolio as an instrument for evaluating the discipline was due to the fact that in it, activities of analysis and reflection are proposed, all thought from problem situations arising from the practice,
built by the faculty, which requires students communication skills and critical analysis.

In this process, with the use of active methodologies, it assumes that the student's assessment must value the dynamism that involves the training, in an integral way; allowing the monitoring, mutual exchange and growth of everyone involved in the teaching-learning process.

Among assessment instruments that use reflection and the development of critical thinking, we identified the portfolio, as it is an instrument that presents an opportunity to build from a dialogical relationship between educator and student. It enables the apprehension of personal and interpersonal information and meanings, which mediate knowledge, dialogue with the various actors involved and allow meaningful learning\(^{(1-4)}\).

Portfolio enables questioning, criticism, reflection, formulation and reformulation. It is not ready, it is unfinished and in constant construction, welcoming criticism and reframing of impressions. It presents flexibility and dynamism, because it always seeks to expand the possibilities of formulations and reframings, and when it presents a chronology it must allow to accompany personal / professional growth and with it identify needs, weaknesses and inaccuracies, allowing them to be corrected in time, so that learning is in fact significant\(^{(1)}\).

We believe that this instrument stimulates reflective thinking, allowing the recording and documentation of the learning itself. It provides guidelines for reformulations that respond to the objectives of the curricular component, indicating new paths and possibilities, allowing the exchange between peers, new perspectives on the same activity, enabling the understanding of the diversity of interpretations and multiple understandings under the same aspect of health training work.

In elaborating the evaluation process of the discipline, we sought to apprehend the essence of the development of each student in their training process, allowing the expression of subjectivity and the search for knowledge constructed, apprehended and reframed by the academic, in a growing spiral of involvement and technical-scientific development. The product of this evaluation process is characterized by significant learning, that is, one that makes sense and has theoretical and practical applicability.

In this experience, the teachers initially taught an integrated class with the explanation of ideas of how to make a portfolio and build a blog, as well as the step by step of inserting publications in the Virtual Learning Environment. It is reiterated that in this stage there was the active participation of students, through the teaching strategy Brainstorming.

During the classes, the students synthesized the contents taught, being directed to research content considered important to foster the construction of knowledge in the context of nursing care in urgency and emergency from the literature evidence, guided by the teaching plan of the discipline.

When the period of practical classes started, technical visits were made: one took place in an Emergency Unit and the other in a municipal Emergency Room. On the occasion of the referred visit, it was possible to observe the routine of care offered by these services. Observation continued during the semester, during supervised practices.

The contents were organized and inserted according to the schedule of classes, these were evaluated by peers and teachers, with an emphasis on relevance, scientificity, compliance with scientific consensus, respect for ethics, property and intellectual rights. It is reiterated that all the content inserted in the online portfolio / blog followed the recommendations of citation and referencing, giving due credit to the authors of origin in compliance with ethical precepts.

In addition to the practical activities carried out during supervised practices and laboratories, which served as a starting point for research and inclusion of content in the online portfolio, all activities carried out in the classroom were also part of the discipline's records. and images were added to the blog and served as a subsidy for building the portfolio.

At the end of the academic semester, there was a culmination moment, when the students presented their experiences, inserted in the blog, bringing their reflections, self-evaluation and evaluation in the groups, allowing collective feedback.

**III. RESULTS AND DISCUSSION**

The findings of this experience made it possible to show that the configuration of the teaching and learning evaluation process proposed and implemented, as it was agreed between teachers and students, allowed them to assume a committed and co-responsible posture, with transparency throughout the process, which allows us to infer by identifying positive manifestations from students that this proposal was recognized as a legitimate instrument to be applied, considering the needs of students and having the involvement of these and teachers, from the experience in the construction and orientation of portfolios,
resulting in a process meaningful and motivating assessment.

These results are in line with other studies, where the expectation in using the portfolio was to be able to mobilize the student’s personal responsibility over their learning process, favoring the analysis of the singularities and peculiarities of each one’s development\(^{(6,7)}\).

Such finding was evidenced from the students’ speeches, where we observe reports that the portfolio makes it possible to connect the contents studied in the classroom with the real world, the professional world and everyday life. As students are encouraged to pay attention to the events around them and to think about them, actively seeking content published in the databases and means of scientific dissemination, a critical and reflective practice is instituted and, concomitantly, a commitment to the best health practices, the light of evidence, the exercise of citizenship and with the current health system, Unified Health System (SUS).

We emphasize that the criteria used in the evaluation were transparent and clear, explained and agreed upon since the beginning of the academic semester, facilitating the student’s visualization of his / her training process in a continuous and procedural way. We reiterate a positive apprehension in this experience, given that, there was the development of comprehension and interpretation skills, which we believe to be a facilitating element in the decision-making process about the contents, with effective exercise of oral and written communication.

The results of this experience are in line with the results of other studies\(^{(1,7)}\) by demonstrating that the evaluation instrument is not presented as a simple intuitive innovation, but that, based on a theoretical-conceptual framework associated with a previous reflection on the pertinent literature proved to be an excellent didactic and evaluation possibility, pointing to the different probabilities of using the portfolio.

We found that students, while building an opportunity, guided by teachers attentive to the competencies established in the teaching plan, made reflections on learning and progress.

In this perspective, the online portfolio proved to be an assessment tool with potential for use in the teaching-learning process, where the feedback, by the teachers, was not only through oral communication, there was written registration, helping in the process of self-evaluation and evaluation, thus making the culmination and evaluation moments an excellent opportunity for growth and mutual learning.

We believe that there was the development of the student's responsibility for his own learning, given that the reflective activity was made explicit both in the portfolios as a document, as well as in the evaluations and self-evaluations carried out at the end of the school semester. The use of the portfolio in this experience, to make the student committed to the best health practices, the light of evidence, the exercise of citizenship and with the current health system, Unified Health System (SUS).

We understand and propose the use of the portfolio as the individual record of all the knowledge developed by the student, organized based on their reflections and activities guided by the teacher, as well as comments on classes and experiences.

During the construction of this important tool, informative links, videos, images with relevant information on the theme, contents that were part of the classes taught and the activities developed during the semester were inserted according to the respective effective dates.

The contents were organized according to the curriculum component schedule and the activities carried out during the school term, always following a chronological sequence. As a final product, we built a portfolio and presented it to classmates and teachers, showing in great detail everything that was planned, elaborated and developed during the construction of the curriculum component.

During the preparation period, it was observed that the portfolio / blog is an important methodological resource for assessment, both in teaching and in learning, because when organized in a portfolio format, it allows students the opportunity to learn in a practical, dynamic way and interactive. In addition to providing Internet users with new sources of knowledge, it innovates the educational methodology and ratifies the triple research, teaching and extension proposed by educational institution\(^{(1,7)}\).

The use of the reflective portfolio in this experience made the evaluation of the teaching learning process dynamic, diversified, different and attractive, which was based more on the execution path than on the results, on the processes than on the products, in line with the ways of working located in scenarios as close to the real ones as possible.

It is emphasized as a contribution to the educational practice, that the critical, reflective and active action carried out by nursing students, through the reflective portfolio, has the potential to allow the future professional to experiment with a new teaching, learning, assessment
and self-assessment strategy, so that, in the future, it can be applied with practical experience(7). Furthermore, the experience allowed to know the weaknesses and potential of the strategy, so that teachers can plan its use effectively, according to the context and also with the group of students with whom the teacher / facilitator will interact and the profile of the student desired egress.

Finally, we believe that the objective set was achieved, and although we have not obtained results different from those already available in the scientific community, this study reiterates the reflective portfolio as a promising strategy for formative assessment.

IV. CONCLUSION

The use of active teaching methodologies and consequent evaluation through the assessment tool, online portfolio, contributes to increase the self-confidence, self-knowledge and reflexive competence of students throughout the training process, in addition to providing theoretical-practical dialogue focused on the profile of the professional who aims to form.

An evidence pointed out by the speeches on evaluation days and in conversations at the end of classes, is that students identify with this new evaluation possibility, which, at first, seems strange and causes discomfort, but which, with the development of the discipline, materialized and allowed each student to accompany their formative process.

As knowledge is built, students begin to apply their critical and reflective skills in a practical way; and as you return to the portfolio, through the exercise of writing, there is the construction of a story.

We believe that in the perspective of this formative assessment methodology, more than an assessment and self-assessment exercise, there is a construction of identity with the profession, in a more critical, reflective and above all attitudinal way.

We reiterate that such an experience is not challenging and full of mishaps only for students, in terms of overcoming the traditional paradigm with application of tests; reflect, write, and build the portfolio, invited us as teachers to reformulate our practices, our methodologies and to look for other ways of teaching-learning-teaching, in a dynamic that understands to evaluate the process and no longer the final result.

It is understood that it is necessary to learn to evaluate, to face this moment as something that enhances learning, in the sense of integrating, proposing trajectories to be followed, but not the path with crystallized goals, established without space for discussions.

The achievements are unquestionable, however there is still a lot to try to understand and pan in these teaching relationships; such search for instruments, methods with the potential to offer students favorable space to learn, learn, live and live together must be goals pursued by all higher education teachers and managers.

A certainty pointed out is the certainty that we should always encourage students to read and record activities as a way to support scientific development. Much more than technicians, manufacturers, we want to train citizens aware of their social potentials and critical subjects capable of identifying problems, with the capacity to cope with the search for solutions.

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