Teacher identity formation in nursing teacher training: reflection mediated by digital technologies

Construção da identidade docente na formação de professores de enfermagem: reflexão mediada por tecnologias digitais

Construcción de la identidad académica en la formación de los profesores de enfermería: reflexión mediada por las tecnologías digitales

Dayane Mayara Gambini Parigi[1], Priscila Caccer Tomazelli[1,] Denise Maria de Almeida[2], Débora Rodrigues Vaz[2,] Candice Heimann[2,] Cláudia Prado[3]

[1] Nursing Student, School of Nursing, University of São Paulo, São Paulo, São Paulo, Brazil.

[2] PhD Student in Health Sciences, School of Nursing, University of São Paulo, São Paulo, São Paulo, Brazil.

[3] Associate Professor, School of Nursing, University of São Paulo, São Paulo, São Paulo, Brazil.

ABSTRACT

Objective: Analyze the teacher identity formation process from the perspective of the past, present and future in the training of nursing teachers through the integration of digital technologies. **Method:** Descriptive, exploratory study, with a qualitative approach, conducted in the on-site class "Teacher Identity Formation" in 2012. Of the synchronous and asynchronous activities, four were analyzed using content analysis. **Results:** In chat, positive and negative impressions and reflections on the formation of one's own identity were identified (six categories); in the "Time tunnel," the projection of future identity (four categories); in the "Portfolio," the perception of one's own identity (four categories); and in the evaluation of the class, the perception of the experiences lived in the class (two categories). **Conclusion:** The integration of digital technologies promoted, in a collaborative way, discussion and understanding by students of how their identity is formed and the projection of their future identity, aligned with the profile and role of teachers demanded in the world of today.

DESCRIPTORS

Nursing Education; Educational Technology; Higher Education; Innovation.

Correspondence Addressed to:
Denise Maria de Almeida
Av. Dr. Enéas Carvalho de Aguiar, 419 –
Cerqueira César
CEP 05403-000 – São Paulo, SP, Brazil
dealmeida@usp.br

INTRODUCTION

Changes in society, spurred by the development of digital information and communication technologies (DICT), have impacted school and work environments, challenging institutions to transform established educational practices.

The creation of collaborative and motivating learning environments through the inclusion of DICT is undermined when educators are not trained, in both pedagogical and technological aspects, to properly use them[1].

Therefore, it is essential that the initial training create conditions for future teachers to experience the use of these technologies, aimed at the development of technological and pedagogical competencies so as to build innovative educational practices aligned to the new profile of students – digital natives[2].

CNE/CP Resolution 01/2002, which established a set of principles and procedures to be followed in the institutional and curricular organization of teacher training institutions, indicates, in Article 2 subsection VI, that information and communication technologies need to be used, as well as methodologies, strategies and innovative support materials[3].

One of the objectives of the Nursing Teacher Training Course of the School of Nursing of the University of São Paulo (EEUSP) is to equip students to be able to competently use digital information and communication technologies in their future careers. The course has sought to provide students with experience in using information and communication technologies under inverted symmetry conditions[3], so that during the training process future teachers can experience the skills, attitudes, teaching models and modes of organization they wish to have in their future teaching careers.

In this study, the inclusion of these technologies took place in the classroom in order to promote discussion and reflection on teacher identity formation, understood as *formation of identity types in the trajectory of professional training*[4].

The professional identity of teachers should not be thought of as a given, a property, a product, but as a complex and dynamic process that is socially constructed inside and outside the school, and for this reason, its formation takes time. Identity is a place of struggle and conflict, it is a space for constructing ways of being and working in the profession, characterizing how each person feels and identifies as a teacher[5].

It is impossible to separate the personal and professional dimensions, because teachers are people and people are teachers. We teach based on who we are, and much of what we teach is found in who we are. Thus, it is important that teachers be prepared to work on themselves, using 'n and self-analysis[6].

Teacher identity is formed during the school trajectory and while practicing the profession. However, the assumptions and directives contained in the training course, which are essential to this formation, will be laid down during the initial training[7].

The training should stimulate a critical and reflective outlook that enables independent thinking and facilitates the dynamics of participatory self-training. It entails *personal investment, free and creative work in relation to personal pathways and projects, with a view to building an identity that is also a professional identity*. It should foster interaction between the personal and professional dimensions, allowing teachers to take ownership of their training processes and giving them meaning within their life stories[8].

Against this backdrop, the objective of this study was to analyze the teacher identity formation process from the perspective of the past, present and future in the training of nursing teachers through the integration of digital technologies.

METHOD

This is an excerpt from the project "Evaluation of teacher training in nursing from the perspective of teachers and students," registered with and approved by the Brazil Platform under Opinion No. 145091. It has a descriptive exploratory profile, with a qualitative approach. The activities performed by the 34 students who participated in the class "Teacher Identity Formation" were analyzed. This class, which lasted four hours, was part of the course ENO 436 - Nursing Teaching Methodology II, part of the Teacher Training Course of EEUSP. It was given in the computer lab using the Moodle platform in the second half of 2012. The goal of this class was to understand the concept of teacher identity, as well as generate reflections and discussions on the challenges involved in its formation, using digital information and communication technologies as an educational resource.

The class, structured according to dialectical methodology, included synchronous and asynchronous activities to promote knowledge mobilization, construction and synthesis[9].

For knowledge mobilization, the video "Story of Pinocchio" was used. For knowledge construction, the following were used: the chat entitled "Timeline"; the learning object "Teacher identity"; the audio "Cave people"; and the video "The role of the teacher" by Rubem Alves. The activities to promote knowledge synthesis were "In the time tunnel" and "What does it mean to feel like and be a teacher and how is this identity formed?" – reflections developed in the virtual portfolio of the course. The students assessed the class on the virtual log, in the activity entitled "Evaluating the experience of the class."

In this study, the narratives were analyzed using Bardin's discourse analysis[10], in relation to teacher identity formation. The first stage of the study corresponded to the analysis of the chat activities "Timeline" and "In the time tunnel." Chat activities consisted of three parts with the following directional questions: What positive impressions do you have of your school experience? And what negative ones? How are you forming your teacher identity? In the exercise "In the time tunnel," using the asynchronous tool "sending an assignment," was based on the following idea: Imagine that a few years from now two of your former students meet and have a discussion where they describe what

you were like as a teacher and what role you played in their education. How would you like to be remembered?

In the second stage, the activities "Portfolio" and "Evaluating the experience of the class" were examined. The directional question underlying the reflection in the portfolio was: What does it mean to feel like and be a teacher and how is this identity formed? The evaluation of the class was guided by the questions: What was the experience of this class like for you? What changes to the class would you suggest?

To ensure the anonymity of the subjects, a coding system was designed wherein each participant was assigned the letter "A" followed by a number corresponding to the analysis sequence of the activities. Thus, the first participant whose activities were analyzed received the code "A 1," and so on with the others.

RESULTS

In the analysis of the "Timeline" chat regarding the question "What positive impressions do you have of your school experience?", the following categories emerged: Social Interaction and Other Spaces for Knowledge. The students highlighted the importance of interpersonal relationships in the teaching-learning experience. They also emphasized practical activities, within and outside the school environment, as elements that promoted the building of knowledge and collaborative learning.

I believe that spending time with my friends was what most marked my school experience (A 31).

Activities outside the classroom were always important in order to increase knowledge and improve our interpersonal relationships. I liked them a lot!!! (A 9).

In relation to the question "What negative impressions do you have of your school experience?" in the Traditional Classes and Evaluations categories, the students expressed their discontent with the traditional model of teaching that prevailed throughout their school years and criticized evaluations that prioritized results over the knowledge building process.

As a negative impression, I would say classes given without any preparation, lacking in innovation and with no concern to validate the student's previous knowledge (A 9).

The word torture would fall short in describing oral tests (A 4).

In relation to the question "How are you forming your teacher identity?" in the School Experiences and Desire to Teach categories, they mentioned that experiences with former teachers and student teacher experiences helped shape their teacher identity. They also reported how experiences in the course influenced or strengthened their desire to be teachers.

From what I experienced in the classroom and with all the knowledge I acquired through the course, both practical and theoretical (A 9).

I didn't start off thinking about become a teacher, but the course really changed my perspective (A 34).

In the activity "In the time tunnel," regarding the projection of their teacher identity, in the Encouragement to Learn and Teacher's Personality categories, the students were anxious to be remembered as mediators of learning, promoting and awakening the scientific curiosity of students. As for teacher personality characteristics by which they would like to be remembered, they mentioned love of the profession, students and patients, ethics, trust in students and availability to assist in the teaching process.

She made me (re)think what I wanted to be and what I wanted for my personal and professional life. She provoked me and made me think question situations and problems. She didn't always provide ready-made answers, but tossed back the questions and made me reflect (A 20).

Her welcoming way and closeness to us, praising our performance, made me feel like I was part of her nursing team. She disregarded the hierarchical and discouraging way of working and manifested security in my ability to lovingly carry out what I had learned to do (A 28).

In the Social Context and Previous Knowledge categories, the students wanted to be remembered as teachers who valued the personal side of students and their knowledge.

She was always concerned, not only about the content she had to pass on, but mainly about us and our lives (A 13).

Another very important thing is that she always drew out our previous knowledge on the subject (A 21).

In the reflective activity of the "Portfolio," related to perception of the formation of their teacher identity, in the Teacher Reference category, the students noted that some teachers they had had in the had past marked them and influenced their present teacher profile.

Up until today, I always remember the teachers I had who left me with good memories as being great teachers. I think about copying the way they used to teach. I believe that in the identity formation process, we have a few people in our lives that are like a mirror (A 19).

In the Be a Teacher and Teacher Identity categories, the students recounted their experiences as they put into practice what they had learned, reflecting on performance and the importance of teacher identity formation, viewing it as a process and reflection of experiences they had lived.

While teaching, I drew on the previous knowledge of students about basic care. I was able to encourage them to participate in the class. Many asked questions and I managed to create a relaxed atmosphere, without using the traditional model where the teacher is the sole holder of knowledge, and in the evaluation I could see that the students had absorbed what I had to pass on to them (A 1).

I learned a lot and realized that I've already formed a teacher identity, which with practice and experience in the future can be polished, but the foundation has already been laid (A 9).

In the Challenges of Teaching category, they expressed feelings ranging from insecurity to the sensation of feeling like a teacher.

You know you'll be scrutinized all the time and this gives you butterflies in your stomach and you wonder if you're prepared for this. It also exposes you to being a teacher, which brings on this feeling and the pursuit of this identity and characterization, since you start to realize that this teacher's degree and even the nursing degree itself has somehow planted a seed in you to become a teacher. Supervising an internship is a funny feeling, since I've always been on the other side, that of the student, and now I find myself in an intermediary position, between the teacher and student, on the way to becoming a teacher (A 20).

In the activity "Evaluation of the experience of the class," in the Use of Technology and New Teacher Profile categories, the students expressed satisfaction with the use of different technological resources. They reflected on the implications that changes in the teacher's role will have on their professional future.

Participating in the chat moderated by the professor was a unique experience and very beneficial to me. (...) The other components of the class (slides, text and video) also introduced (and generated) quite important reflections (A 6).

The role of educators is changing considerably and inevitably, and it's mainly up to new teachers to accompany this change and change themselves as much as possible to achieve the ultimate goal, which is to form thinking, intellectually able adults (A 31).

DISCUSSION

The narratives confirmed that social relationships exert a major influence on the teaching-learning process, and have significance as interactions occur. When they meet the student's expectations, they are viewed as positive impressions.

Teacher-student interaction imparts meaning to the educational process, since the participants develop knowledge collectively. The relationship between teachers and students involves behaviors that mutually influence the actions of these participants. Thus, the complexity of human relationships becomes a key element for promoting changes at the educational and behavioral levels. A good teacher-student relationship also contributes to the building of civic awareness on both sides[11].

A favorable environment and a good relationship between students and teachers has a direct impact on the teaching-learning process, since the individual and the social environment are inseparable and continually shape each other[12]. Mutual help orients and guides self-training and the training of teachers as professionals, and streng-

thens their own identity, their intrapsychological and interpsychological beings, characterized by the relationship with themselves and others[13].

The teaching strategies work to influence the student's perception; extracurricular/school activities are perceived as empowering the learning process; and traditional classes were identified as one of the weaknesses of the teaching profession.

Teacher training courses should provide complex social and cultural environments where discourses and identities are in constant tension, providing students with the feeling of being and becoming teachers[14].

Unique, innovative activities that draw students closer to reality and gradually lead them to an abstract level are indispensable for building positive impressions. Another important issue worth highlighting concerns shared responsibility in the teaching-learning process, since with traditional training there is a tendency for students not to feel co-responsible for their learning[15].

It is hoped that the outcome of teacher identity formation during teacher training, besides resulting in the positive development of a professional identity, will cause new teachers to realize the importance of ongoing improvement throughout their professional lives[14].

Evaluation methods focusing on specific events, for example, on tests, were viewed as causing negative impressions, since they make students uneasy and place professors in the position of holders of the truth. This position may result from situations in which professors exercises their authority, eliciting fear in students[16].

To transform educational practices and promote individual growth, a change of paradigm is needed in the evaluation process to generate opportunities for action-reflection during the continual monitoring of the learning process, stimulating critical thinking and student participation[15].

From the students' perspective, the inclusion of digital technologies in the class was beneficial for learning. In the globalized and technologically advanced world of today, technology can be useful in education to help overcome old teaching paradigms, in the construction of new competencies and the pursuit of a more contextualized education, tailored to the needs of the workplace. Technological resources can be tools that facilitate the adoption of active methodologies that promote effective student participation[17].

The narratives also show that the class enabled students to perceive and reflect on the foundations of teacher identity formation. The students indicated that reflecting on their past experiences in the student role, helps them to reflect on what they desire and do not desire to be. Therefore, recapturing the processes experienced in their lives, both in their personal history and the history of other professors, enables the trajectory to be individualized, in addition to providing understanding and enhanced awareness as to how pedagogical foundations and teacher identity are formed[18].

Teacher identity can be described as unitary and multiple, continuous and discontinuous, individual and social. The identity of someone who teaches is a continuous process of negotiation, inter-relating their participation as an investment in someone's life. At the same time, teacher

identity formation can be seen as a negotiation process between different teaching concepts[19].

Teacher identity formation is based not only on the knowledge obtained during training, but also on extrinsic factors that have a direct impact on "being a teacher." Teacher identity is not something fixed or imposed, on the contrary, it is a formation constantly negotiated between experience and the meaning of this formation[12]. Thus, students receiving teacher training indicated that the main factors that contribute to the formation of teacher identity are the student-teacher experience, previous school experiences and content learned.

Learning to teach is a process of forming an identity in the midst of often conflicting relationships, which makes this training quite challenging, since it means becoming a different person with regard to responsibilities. It entails operating within a context of teaching tasks, teacher supervision, and being observed, while at the same time observing and analyzing one's peers[20].

CONCLUSIONS

The conclusions of this study are in line with the results and discussion presented earlier. The integration of digital information and communication technologies in the aforementioned class promoted discussion and the students' understanding as to how teacher identity is formed. Participation in synchronous and asynchronous activities in the class enabled students to realize that teacher identity starts with one's first learning experiences, and that positive and negative impressions throughout one's school years influence this formation.

Students projected a teacher identity for themselves, consistent with current discussions on delineating the profile and role of teachers in today's world.

The experience of the class was assessed positively by the students, in terms of knowledge construction as well as interactions that fostered collaborative learning.

This study helped expand knowledge related to the use of digital information and communication technologies as teaching resources in nursing education, revealing their potential to promote meaningful learning.

A possible limitation on the narratives is that the subjects were interviewed during a short period, i.e., the length of the class, with a variety of activities to be performed that required complex thinking, reflection, and expression of perceptions and memories.

The conclusions of this study apply only to this population due to the small size of the sample, consisting of 34 students. Therefore, the results cannot be generalized to other students receiving teacher training in other educational institutions. It is important to conduct further studies involving a larger number of students and educational institutions.

The small number of publications about studies with an objective and population similar to this study, especially in nursing, greatly limited literature review and comparison of results.

As stated earlier, this study sought to understand the teacher identity formation process, based on the perspectives of the students themselves at the end of their initial training. It would also be relevant for future studies to monitor the teacher identity formation process throughout the teacher training course.

We would likewise recommended monitoring the teacher identity formation of these subjects as they exercise their professions in the future, including the perception of peers and their future students, in order to delve deeper into this theme.

RESUMO

Objetivo: Analisar o processo de construção da identidade docente na perspectiva do passado, presente e futuro na formação de professores de enfermagem por meio da integração de tecnologias digitais. **Método:** Pesquisa descritivo-exploratória, vertente qualitativa, consolidada na aula presencial "Construção da Identidade Docente" em 2012. Das atividades síncronas e assíncronas, quatro foram analisadas por meio da análise de conteúdo. **Resultados:** No Chat identificaram-se marcas positivas e negativas e a reflexão da construção da própria identidade (seis categorias); no "Túnel do tempo" a projeção da futura identidade (quatro categorias); no "portfólio" a percepção da própria identidade (quatro categorias) e na avaliação da aula, a percepção das experiências vivenciadas na aula (duas categorias). **Conclusão:** A integração das tecnologias digitais favoreceu a discussão e compreensão dos licenciandos, de maneira colaborativa, acerca de como sua identidade é construída e a projeção de sua futura identidade alinhada ao perfil e ao papel do professor exigidos na contemporaneidade.

DESCRITORES

Educação em Enfermagem; Tecnologia Educacional; Educação Superior; Inovação.

RESUMEN

Objetivo: Analizar el proceso de la construcción de la identidad académica desde la perspectiva del pasado, presente y futuro en la formación de profesores de enfermería a través de la integración de las tecnologías digitales. **Método:** investigación cualitativa descriptivo exploratorio, consolidada en el aula "Construcción de la identidad del profesor", 2012. De las actividades síncronas y asíncronas cuatro fueron analizadas por medio del análisis de contenido. **Resultados:** En el chat se identificaron marcas positivas y negativas y reflexiones en la construcción de la misma identidad (seis categorías); "túnel del tiempo" la proyección de la futura identidad (cuatro categorías); en el "portfolio" la percepción de la propia identidad (cuatro categorías); evaluación de la clase y la percepción de experiencias vivenciadas en el aula (dos categorías). **Conclusión:** La integración de las tecnologías digitales favoreció la discusión y comprensión de los estudiantes de graduación, de manera colaborativa, acerca de cómo se construye su identidad y la proyección de su identidad futura alineado con el perfil y el rol del profesor exigidos hoy día.

DESCRIPTORES

Educación en Enfermería; Tecnología Educacional; Educación Superior; Innovación.

REFERENCES

1. Dorneles DM, Chaves LMN. A formação do professor para o uso das TICS em sala de aula: uma discussão a partir do projeto piloto UCA no Acre. Texto Livre Linguagem Tecnol [Internet]. 2012 [cited 2014 Oct. 15, 2015];5(2):1-18. Available from: http://www.periodicos. letras.ufmg.br/index.php/textolivre/article/view/1959/3460

2. Prensky M. Digital natives digital immigrants. On the Horizon [Internet]. 2001 [cited 2014 Sept 28];9(5). Available from: http://www. marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part1.pdf

3. Brasil. Ministério da Educação. Resolução CNE/CP n. 1, de 18 de fevereiro de 2002. Institui Diretrizes Curriculares Nacionais para a formação de Professores da Educação Básica, em nível superior, curso de licenciatura, de graduação plena [Internet]. Brasília; 2002 [cited 2014 Sept. 28]. Available from: http://portal.mec.gov.br/cne/arquivos/pdf/rcp01_02.pdf

4. Oliveira PWS. Construção de identidades profissionais: da formação profissional à vivência da inserção no mercado de trabalho. LABOR [Internet]. 2011 [cited 2014 Oct. 12, 2015];1(6):344-62. Available from: http://www.revistalabor.ufc.br/Artigo/volume6/8_CONSTRUCAO_DE_ IDENTIDADES_PROFISSIONAIS_DA_FORMACAO_PROFISSIONAL_A_VIVENCIA_DA_INSERCAO_NO_MERCADO_DE_TRABALHO.pdf

5. Nóvoa A, coordenador. Vidas de professores. Porto: Porto Ed.; 2000.

6. Nóvoa A. Para uma formação de professores construída dentro da profissão. Educación [Internet]. 2009 [cited 2013 Jan. 08];350:203-18. Available from: http://www.revistaeducacion.educacion.es/re350/re350_09por.pdf

7. Barreiro IMF, Gebran RA. Prática de ensino e estágio supervisionado na formação de professores. São Paulo: Avercamp; 2006.

8. Nóvoa A, coordenador. Os professores e a sua formação. Lisboa: Dom Quixote; 1992. Formação de professores e profissão docente; p. 13-33.

9. Vasconcellos CS. Construção do conhecimento em sala de aula. 18ª ed. São Paulo: Libertad; 2005. (Cadernos Pedagógicos do Libertad).

10. Bardin L. Análise de conteúdo. Lisboa: Edições 70; 2011.

11. Silva OG, Navarro EC. A relação professor-estudante no processo ensino-aprendizagem. Interdisciplinar: Rev Eletr Univar [Internet]. 2012 [cited 2014 Oct. 13];3(8):95-100. Available from: www.univar.deu.br/revista/index.php/interdisciplinar/article/view/82

12. Curwood JS. Between continuity and change: identities and narratives within teacher professional development. Teach Educ. 2014;25(2):156-83.

13. Frison LMB, Simão AMV. Abordagem (auto)biográfica: narrativas de formação e de autorregulação da aprendizagem reveladas em portfólios reflexivos. Educação (Porto Alegre) [Internet]. 2011 [cited 2014 Oct. 20];34(2):198-206. Available from: http://revistaseletronicas.pucrs. br/ojs/index.php/faced/article/view/8705/6357

14. Chong S, Low EL, Goh KC. Emerging professional teacher identity of pre-service teachers. Austr J Teach Educ [Internet] 2011 [cited 2014 Nov 12];36(8):50-64. Available from: http://files.eric.ed.gov/fulltext/EJ937005.pdf

15. Semim GM, Souza MCBM, Corrêa AK. Professor como facilitador do processo ensino-aprendizagem: visão de estudante de enfermagem. Rev Gaúcha Enfer [Internet]. 2009 [cited 2014 Oct. 15];30(3):484-91. Available from: http://seer.ufrgs.br/RevistaGauchadeEnfermagem/ article/view/9210

16. Firme TP. Mitos na avaliação: diz-se que... Rev Meta Avaliação [Internet]. 2009 [cited 2014 Oct. 10,];1(1):1-10. Available from: http:// metaavaliacao.cesgranrio.org.br/index.php/metaavaliacao/article/view/15/3

17. Baladeli APD, Barros MSF, Altoé A. Desafios para o professor na sociedade da informação. Educ Rev [Internet]. 2012 [cited 2014 Oct. 10];(45):155-65. Available from: http://www.scielo.br/pdf/er/n45/11.pdf

18. Wachs MC. As dinâmicas simbólicas e a (re)construção da identidade docente. Teocomunicação [Internet]. 2010 [cited 2014 Oct. 10]; 40(2):192-212. Available from: http://revistaseletronicas.pucrs.br/ojs/index.php/teo/article/download/8069/5709

19. Akkerman SF, Meijer PC. A dialogical approach to conceptualizing teacher identity. Teach Teacher Educ [Internet]. 2011 Feb [cited 2014 Nov 12];27(2):308-19. Available from: http://www.sciencedirect.com/science/article/pii/S0742051X10001502

20. Dang TKA. Identity in activity: examining teacher professional identity formation in the paired-placement of student teachers. Teach Teacher Educ [internet]. 2013 [cited 2014 Oct 10];30:47-59. Available from: http://www.sciencedirect.com/science/article/pii/ S0742051X12001527.