



Narratives about teacher training with/for technologies: implications at the teachers' practices

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ABSTRACT. The article is part of doctoral research and aims to analyze some implications of a continuing training entitled 'Programming and Learning with Scratch in teachers' practices. It is a 'research-training' perspective, in which we analyze narratives produced by 11 teachers managing educational technologies and media resources (Progetec's), linked to the Educational Technology Center of the Education State Department from Mato Grosso do Sul. From the proposed dynamics, the teachers/Progetec's were provoked to reflect and narrate about the formation and its implications and consequences in their practices. To perform narrative analysis, we produced a word cloud using the Iramuteq qualitative analysis interface, which highlighted two recurring roles in the training context: the teacher's and the student's, not as dichotomous, hierarchical, but from a perspective of collaboration, partnership, and sum, sometimes mixing, sometimes complementing, sometimes confusing. The teachers/Progetec's recognize themselves in movement in the inventive process of teaching and learning, with ambiguous and therefore positive strategies of ruptures and continuities. They also point out that students now have more protagonism and voice space and participation in the context of technology practices. The considerations allowed us to visualize discontinuities and advances in teachers' practice in learning and teaching with technologies, specifically with the 'Scratch' programming language.

Keywords: teacher training; technologies; teaching practices; 'scratch' programming language; narratives.

Narrativas sobre uma formação docente com/para as tecnologias: implicações nas práticas dos professores

RESUMO. O artigo é recorte de uma pesquisa de doutorado e tem como objetivo evidenciar algumas implicações de uma formação continuada intitulada 'Programando e Aprendendo com o *Scratch*' nas práticas dos professores. Trata-se de uma pesquisa do tipo Pesquisa-formação, na qual analisamos narrativas produzidas por 11 professores gerenciadores de tecnologias educacionais e recursos midiáticos (Progetec's), ligados ao Núcleo de Tecnologia Educacional, da Secretaria de Educação do Estado de Mato Grosso do Sul. A partir das dinâmicas propostas, os professores/Progetec's foram provocados a refletir e narrar sobre a formação e seus desdobramentos em suas práticas. Para realizar o estudo das narrativas, produzimos uma nuvem de palavras utilizando a interface de análises qualitativas Iramuteq, a qual destacou dois papéis recorrentes no contexto de formação: o do professor e o do aluno, não como dicotômicos, hierarquizados, mas sob uma perspectiva de colaboração, de parceria e de soma, ora se misturando, ora se complementando, ora se confundindo. Os professores/Progetec's se reconhecem em movimento no processo inventivo de ensinar e aprender, com estratégias ambíguas e por isso positivas de rupturas e continuidades. Também apontam que os alunos passam a ter mais protagonismo e espaço de voz e participação no contexto das práticas com tecnologias. As considerações nos permitiram visualizar fissuras e avanços na prática dos professores no exercício de aprender e ensinar com as tecnologias, especificamente com a linguagem de programação *Scratch*.

Palavras-chave: formação de professores; tecnologias; práticas docentes; linguagem de programação *scratch*; narrativas.

Narrativas sobre la formación docente con / para tecnologías: implicaciones para las prácticas docentes

RESUMEN. El artículo es parte de una investigación doctoral y tiene como objetivo analizar algunas implicaciones de una educación continua titulada 'Programación y aprendizaje con *scratch*' en las prácticas de los docentes. Esta es una investigación y capacitación, en la que analizamos las narrativas producidas

por 11 maestros que administran tecnologías educativas y recursos de medios (Progetec), vinculados al Centro de Tecnología Educativa, del Departamento de Educación del Estado de Mato Grosso do Sul. A partir de las dinámicas propuestas, los maestros/Progetec fueron provocados a reflexionar y narrar sobre la formación y sus implicaciones y consecuencias en sus prácticas. Para realizar el análisis narrativo, creamos una nube de palabras utilizando la interfaz de análisis cualitativo de Iramuteq, que destacó dos roles recurrentes en el contexto de la capacitación: el del profesor y el del alumno, no tan dicotómico, jerárquico, sino desde una perspectiva de colaboración, asociación y suma, a veces mezclado, a veces complementario, a veces confuso. Los profesores/Progetec se reconocen en movimiento en el proceso inventivo de enseñanza y aprendizaje, con estrategias ambiguas y por lo tanto positivas de rupturas y continuidades. También señalan que los estudiantes ahora tienen más protagonismo y espacio de voz y participación en el contexto de las prácticas tecnológicas. Las consideraciones nos permitieron visualizar grietas y avances en la práctica de los maestros en el aprendizaje y la enseñanza con tecnologías, específicamente con el lenguaje de programación *Scratch*.

Palabras-clave: formación de profesores; tecnologías; prácticas de enseñanza; lenguaje de programación *scratch*; narrativas.

Received on August 8, 2019.
Accepted on September 26, 2019.

Introduction

This article, an excerpt from doctoral research completed in 2018, in the Graduate Program in Education, at the Catholic University Dom Bosco, with a research project approved by the Ethics Committee, on the Brazil platform on 09/08/2016 (protocol nº 57899616.9.0000.5162), aims to analyze the implications of training with/for technologies in the practice of teachers, through their narratives. The technology in question is Scratch, a programming language developed by the Lifelong Kindergarten Group, of the Massachusetts Institute of Technology - Media Lab, available for free and which allows the creation of interactive stories, animations, games, music, and art.

The continued training of teachers discussed here took place from May to December 2016, with a group of 30 Teachers of Educational Technologies and Media Resources (Progetec's), from the Educational Technology Center (NTE - Regional), linked to the State Secretariat of Education. Education of Mato Grosso do Sul (SED).

The NTE-Regional, the nucleus responsible for the dissemination of the use of technologies and media in the jurisdiction schools and for the continuous training of teachers linked to them, is located in Campo Grande - MS and serves public elementary and high schools, dividing into 24 schools and 06 extensions, distributed in 10 municipalities surrounding the capital. Among these schools, 17 are urban (one of them serving full-time) and 13 rural (one of them serving full-time), one is quilombola and the other is an indigenous school.

In this context of diversity, the teacher training entitled 'Programming and Learning with Scratch' had two face-to-face meetings (workshop to introduce Scratch in NTE Seminar) and also eight months of mediation of online training held in a Facebook group created for this purpose.

The methodology adopted was research-training, a kind of action research that makes it possible to carry out the planning, execution, and analysis of training, as well as taking into account the study of all aspects of training: its design, contexts and developments, the subjects involved, their histories, identities, subjectivities and reflections, and pedagogical practice, its implications, advances, and possibilities.

According to Rebolo and Brostolin (2015), research-training involves subjects in a dynamic in which, when participating in the formative process, teachers investigate the elements that emerge and focus on them, through a reflective exercise.

Thus, research-training is formative and investigative, because at the same time that it generates data, it already analyzes and submits them to the group and, in this way, the reflections and questions that arise are adjusted throughout the work and not only in the end of it [...] (Rebolo & Brostolin, 2015, p. 2)¹.

For Diniz-Pereira and Zeichner (2011, p. 12), action research has as its main characteristics "[...] its participatory character, its democratic impulse and its contribution to the social sciences and the transformation of society simultaneously".

In the cut that we made for the writing of this article, we chose to select an activity carried out with the research actors. The criteria established for the choice of participants were: teachers / Progetec's of basic

¹ In the original: "Assim, a pesquisa-formação é formativa e investigativa, pois ao mesmo tempo em que gera dados, já os analisa e os submete ao grupo e, desta forma, as reflexões e questões que vão surgindo são ajustadas ao longo do trabalho e não só no final dele [...]".

education, from different areas (Visual Arts, Biological Sciences, Physical Education, Philosophy, Geography, History, Letters, Mathematics, Pedagogy and Chemistry) who had participated in the discussions at activities in which we use the open space meeting methodology (Open Space Technology - OST).

Among the activities developed during this stage of training, we highlight the dynamics of narrative production through the methodology of meeting in OST, organized in three themes, in which teachers / Progetec's were provoked to organize themselves in groups and through interactions and dialogues, produce materials mediated by digital technologies (animations, games, videos, audios) and digital narratives about the following themes: 1) Appropriation and Production with Scratch; 2) Translations and Reassignments of projects with Scratch; 3) Reflection and Dialogue: What continuities and discontinuities can we trace.

For the production of digital narratives, teachers were invited to describe individually and from the group dialogue, about how this training activity implied in their practices and the unfolding of these dynamics in their daily lives. Thus, they were provoked to narrate about: what it was like to learn and teach in the contexts of this formation, considering their daily lives, contents, interactions and participations; as well as about its unfolding in its practices?

The production of the narratives was voluntary and not mandatory, respecting the freedom to choose whether or not to participate in activities, as part of the methodology of our research. Of the 30 participants in the training, all produced narratives, although not on all the themes of the activity.

The digital narratives produced from the activities developed in the training, which had the theme 'Reflection and Dialogue: What continuities and discontinuities can we trace?', Were analyzed in this article and had the participation of 11 teachers / Progetec's.

Understanding that each research actor is unique and special and had particular value and place in its construction and meeting the requirements of preserved identities, we use names of Brazilian precious stones to identify each one.

The article follows the following organization: in the first moment, we present concepts about narratives in order to justify their use in the development of the research; then, we bring the word cloud produced by Iramutec and the narratives produced by the teachers, choosing to intertwine the theory and data in the same session, from a perspective of a post-critical methodology; and, finally, we make some considerations that are not final, but contextual and shifting.

Narrating stories of oneself in the context of continuing teacher education

The exercise of narrating stories and experiences lived in the context of formation is a practice that, according to Josso (2007), allows us to learn more from us, from the other, reinvent and transform from a perspective of personal, cultural, and professional development. The forms and meanings revealed in the narratives express the singular existentialism and, in the perspective of collaborative work, also plural, creative and inventive in thinking about acting, living, and working together.

Josso (2007) deals with the subject of the transformation of the self from the narration of life stories and presents the continued formation as a potentializing of creative and inventive ways of thinking based on multiple expressions and meanings of singular-plural existentialism.

This is how our fragments of individual and collective memory are transformed into resources, into fertilizers, into inspiration so that our imagination of ourselves can invent this indispensable continuity between the present and the future, thanks to a retrospective look at ourselves (Josso, 2007, p. 435)².

We use narratives in research as an instrument of data production, understanding that the exercise of accessing memories to remember previous trajectories and experiences helps us to compose our subjectivity and organize knowledge while enhancing learning and (re) meaning of knowledges.

We seek to make, based on the narratives of everyday life, as Alves (2010, p. 1) provokes, "[...] an analysis of the subjective processes of memory, as well as of the multiple relations between memory, narrative and identity".

In this sense, we were equally interested in the reports of the experiences lived by each teacher, in the emergence of their memories, in the connection of these memories with the new knowledge, like the processes of materialization of knowledge in the practice of each one, I understand the exercise of narrating as a way of learning, teaching, organizing knowledge and (re) building their identities and subjectivities.

² In the original: "É assim que nossos fragmentos de memória individual e coletiva se transmutam em recursos, em fertilizantes, em inspiração para que nosso imaginário de nós-mesmos possa inventar essa indispensável continuidade entre o presente e o futuro, graças a um olhar retrospectivo sobre nós-mesmos".

According to Larrosa Bondía (2004, p. 12) "[...], the human being is a being who interprets and, for this self-interpretation, fundamentally uses narrative forms". In this sense, the narrative is understood as an exercise of accessing memory to understand and (re) signify it through and from discourse, from words, feelings, emotions.

We consider narrative reports as instruments that enhance internal and external changes and transformation. According to Carmela and Haguenaer (2012),

The narrative, which for so long blossomed in an artisan medium - in the countryside, at sea and in the city - is itself, in a sense, an artisanal form of communication. She is not interested in transmitting the 'pure itself' of the narrated thing as information or a report. She immerses the thing in the narrator's life and then takes it away from him. Thus the narrator's imprint is imprinted in the narrative, like the potter's hand in the clay of the vase (Benjamin, 1994, p. 205 apud Carmela & Haguenaer, 2012, p. 57, emphasis added)³.

When analyzing the lived experience of each one, their looks inside, with eyes of seeing and feeling, of criticizing and moving towards different possibilities, the production of narratives seems to us to be an important strategy in the continuing education of teachers with and for technologies.

That 'artisanal form of creation', mentioned by Benjamin, seems to have become a virtual laboratory for unrestricted narrative experimentation, that is, there is not only the traveling narrator who reviews his experiences, or the one who has the gift of reporting his daily experiences, all are configured as potential narrators, and the receiver is also a co-creator, pointing to the possibility of the emergence of the symbols of the current society (Carmela & Haguenaer, 2012, p. 64, emphasis added)⁴.

Technologies enable the creative exercise of narrating in media, flexible, dialogical contexts, often crossing different technological devices, in a dynamic that the authors call "[...] a virtual laboratory for unrestricted narrative experimentation" (Carmela & Haguenaer, 2012, p. 64). We understand that the mediation space democratically established in the Facebook group and the resulting interactions, including in other social networks, made this experimentation possible.

In this perspective, everyone is a potential narrator and the receiver participates in the narrative process as a co-creator as well. The virtual media that enable this interaction are constantly changing and adapting, taking the discursive process of the narratives, too, to a frequent adaptation.

Dialogue is, therefore, the indispensable path, says Jaspers, not only on the issues vital to our political ordering, but in every sense of our being. Only by virtue of belief, however, does dialogue stimulate and signify: by belief in man and his possibilities, by the belief that I only become myself when others also become themselves (Freire, 1975, p. 108)⁵.

By recognizing the potential for equality between people, present in conditions of equal circumstances, in situations of being us, with all the emancipatory growth that this dynamic allows, without considering each other superior or inferior, we create conditions of reciprocity and we start to build a world that is ours, of inclusion, of dialogue, of sharing, a world made by 'us' and not by 'selves' (Costa, 2017), a world where teachers and professors, pupils and students can, mediated by TDIC, become more human, more autonomous and more democratic. Narratives enable us to achieve the desired awareness and creative exercise of leading our stories, in the reflective exercise underlying the act of narrating.

In this sense, self-narration is considered here as a possibility of emancipation, rupture, learning, and transformation. To assist us in the study of the narratives produced in the context of training, we treat the data through the qualitative analysis interface Iramuteq, specifically in the production of the word cloud, as we present below.

Word Cloud and Narratives: Some Interlacing

According to studies by Paula, Viali, and Lima (2017), the use of software as a resource for data processing in qualitative research has become a possibility in the humanities, particularly in the field of education.

³ In the original: "A narrativa, que durante tanto tempo floresceu num meio de artesanato - no campo, no mar e na cidade -, é ela própria, num certo sentido, uma forma artesanal de comunicação. Ela não está interessada em transmitir o 'puro em si' da coisa narrada como uma informação ou um relatório. Ela mergulha a coisa na vida do narrador para em seguida tirá-la dele. Assim se imprime na narrativa a marca do narrador, como a mão do oleiro na argila do vaso".

⁴ In the original: "Aquele 'forma artesanal de criação', mencionada por Benjamin, parece ter-se transformado num laboratório virtual de experimentação narrativa irrestrita, ou seja, não há apenas o narrador viajante que repassa suas experiências, ou aquele que tem o dom de relatar suas experiências cotidianas, todos se configuram como narradores em potencial, sendo o receptor também cocriador, apontando para a possibilidade de surgimento dos símbolos da atual sociedade".

⁵ In the original: "O diálogo é, portanto, o indispensável caminho, diz Jaspers, não somente nas questões vitais para nossa ordenação política, mas em todos os sentidos do nosso ser. Somente pela virtude da crença, contudo, tem o diálogo estímulo e significação: pela crença no homem e nas suas possibilidades, pela crença de que somente chego a ser eu mesmo quando os demais também chegam a ser eles mesmos".

We seek to bring this analysis closer to the context of Progetec's activities and the relations with teaching practice, more specifically to issues pertinent to the appropriation of technologies, as devices to think about the process of developing oneself through continuous training, mediated by technologies.

As in this article the focus is to analyze the narratives focused on the implications of teacher training in practice of teachers, we chose to focus on two themes, the most recurring according to the word cloud: the teacher and the student, not as dichotomous, hierarchical, but under a perspective of collaboration, partnership, and sum, sometimes mixing, sometimes complementing, sometimes confusing.

Some narratives: teachers and students in webs of relationships.

With a focus on the narratives of the 11 participating teachers, we saw signs that indicated the possibility of sharing and collaboration, of change that was being built collectively from the experiences of/in training and we tried to understand if these indicators signaled forms of continuities and ruptures related to the practice these teachers and/or signaled other ways of thinking and doing education.

At first the projects in Scratch caused a certain anguish to those involved in my school, but with the passage of time and the creations taking shape, everyone started to appreciate the works. We made exchanges throughout the process, between the NTE, with Progetec's from other schools, and within the school itself. These exchanges made it possible for everyone involved to learn, significant changes (professor / Progetec Rosa do Deserto, 2016)⁶.

The construction of teaching and learning activities based on the Scratch programming language provided relevant exchanges of knowledge between teachers and students, who went along a path together, in a dynamic process of appropriation and production of knowledge (professor / Progetec Pencil Lazuli, 2016)⁷.

In this sense, we can articulate sharing and collaboration, mediation, which, based on the writings of Guazzelli (2015, p. 57), who, when dealing with mediations between teacher x student x object, defends that the responsibility of the teacher "[...] is to mediate the student, the computer, the network, and the media, democratically managing the complex network provided by telecommunications, researching [...] problematizing with the students, the content that mediates them".

In a dynamics of appropriation of new technology, we were able to perceive teachers / Progetec elaborating devices that would allow them to overcome the fissures of the initial training process and search for escape lines from a pre-established pattern.

From the perspectives of Deleuze and Guattari (1995), Cassiano and Furlan (2013, p. 374) state that the escape lines are:

[...] in essence, rupture movements that promote disruptions and sudden changes that are sometimes imperceptible. These changes undo the self with its established relationships, allowing the experimentation of becoming, even if only momentarily. Escape lines are not overcoded by hard lines or malleable lines. "These are very active, unpredictable lines, which in most cases need to be invented, without a model of guidance"⁸.

In this sense, escape lines enable teachers to overcome fear and signal spaces for other learning. Their narratives show this movement:

Learning to program is not a very easy task, but it is also not impossible. And what really amazed me was the interest of the participating students in programming. Certainly, difficulties and obstacles were encountered, but through dedication and interest they were all overcome. And during development, I realized that many teachers were 'curious' to learn more about the tool (professor / Progetec Hematita, 2016, emphasis added)⁹.

This 'knowing more about the tool' is not focused on the technique but the roles of the actors. This perspective is in line with what Valente (1997) defends about the use of the computer in addition to the computerization of education. He can 'catalyze and assist the transformation of the school', taking advantage of the challenges of modernization and modification of class structures and contexts. According to the author,

⁶ In the original: "A princípio os projetos no *Scratch* causaram uma certa angústia aos envolvidos de minha escola, mas com o passar do tempo e das criações irem tomando forma todos passaram a apreciar os trabalhos. Fomos fazendo trocas durante todo o processo, entre o NTE, com os Progetec's de outras escolas, e dentro da própria escola. Essas trocas possibilitaram a aprendizagem de todos os envolvidos, mudanças significativas".

⁷ In the original: "A construção de atividades de ensino e aprendizagem a partir da linguagem de programação *Scratch* proporcionou trocas relevantes de saberes entre professores e alunos, que foram percorrendo um caminho juntos, em um processo dinâmico de apropriação e produção do conhecimento".

⁸ In the original: "[...] em essência, movimentos de ruptura que promovem rompimentos e mudanças bruscas que, por vezes, são imperceptíveis. Essas mudanças desfazem o eu com suas relações estabelecidas, permitindo a experimentação do devir, ainda que, momentaneamente. As linhas de fuga não são sobrecodificadas pelas linhas duras ou pelas linhas maleáveis. São linhas muito ativas, imprevisíveis, que em grande parte das vezes precisam ser inventadas, sem modelo de orientação".

⁹ In the original: "Aprender programar, não é uma tarefa muito fácil, mas também não é impossível. E o que me deixou muito admirada foi o interesse dos alunos participantes em programar. Com certeza, dificuldades e obstáculos foram encontrados, mas pela dedicação e interesse foram todos superados. E durante o desenvolvimento, percebi que muitos professores ficaram 'curiosos' em saber mais sobre a ferramenta".

taking advantage of the potential of computational thinking, programming languages, and logical thinking can be more intelligent and transformative than simply using the computer to computerize teaching.

The narratives, too, show us a dynamic of respect for the other, listening to what the other has to say, in contrast to the unique truths. These interactions are significant and lead us to research procedures and strategies that signal flows and movements in thinking and acting.

In these movements, teachers understand that students start to show more interest in participating in the proposal to use the Scratch programming language, including assuming a leading role in the process, participants involved in the development of educational practice, advancing in learning, and involving others.

This type of study made it possible to perceive what it was like to learn and teach in the context of this training, considering the contents, interactions, and participation, allowing us to infer that the training experience with students has advanced, that there have been advances in group involvement.

In the light of the reflections expressed in the narratives, the teachers indicate some ruptures and continuities to their practices with technologies and with making teachers in their daily lives. Statements such as 'creating new pedagogical strategies', 'acceptance of technologies by teachers' or 'new methodologies and ways to attract students', the signal potential for change from training and interactions. Curiosity and interest also appear in the teachers' narratives, expressing the desire to learn more about Scratch, including developing interdisciplinary work.

We perceive cracks and cracks that make it possible to ventilate everyday practices in the school space, using a new language, that of Scratch, to invent and create, based on the action of students, together with teachers, in a participatory and collaborative work relationship in learning and teaching together.

We understand that teachers' movements are not like one-way processes. On the contrary, teachers try to extrapolate the dualities of student-teacher, technical education - critical education, learning - teaching, intertwining experiences, knowledge, and practices.

The burden that technology sometimes carries, together with the need to innovate, creates anguish for some teachers. However,

[...] innovating is not creating from nothing, said Paulo Freire, but having the wisdom to search the old man. Search your practice to think about whether computer science at school is consistent with the dream of creating a quality school for critical citizenship (Guazzelli, 2015, p. 67)¹⁰.

The time factor appeared as something that deserves to be reflected on and problematized in the sense of disfiguring the logic of time/class. According to professor / Progetec Berilo (2016),

[...] the great difficulty, not wanting to be redundant, was the lack of time to work more with students and also with teachers. One class, or even two classes a week to work on Scratch is very little¹¹.

According to Kenski (1998, p. 69-70), the teacher "[...] must have time and opportunities to become familiar with the new educational technologies, their possibilities, and limits so that, in practice, he can make conscious choices about the use of the most appropriate forms for teaching".

Final considerations

When narrating their training experiences, materialized in the pedagogical practice, the teachers were telling their possibilities, which often came up against and bordered by the limitations of their contexts and the efforts to overcome them.

The teachers / Progetec's narratives were filled with a desire for change. In the recognition of the limitations of their working conditions, but also in the recognition of their incompleteness, the permanent need to teach and learn, in the creative potential of each one. The narratives overflowed with hope for a future in the contradictory relationship between making teachers in contemporary times and the possibilities of realizing a desire for quality education for all.

The programming language Scratch has shown itself, in this sense, as a possibility of change for teachers / Progetec, when used from the context and interest of students and teachers, to promote the problematization of the issues of technology itself, of their limitations, the material reality of schools and the creative potential based on collective work and the context of each group.

¹⁰ In the original: "inovar não é criar do nada, dizia Paulo Freire, mas ter a sabedoria de revistar o velho. Revistar sua prática para pensar se a informática na escola é coerente com o sonho de fazer uma escola de qualidade para uma cidadania crítica".

¹¹ In the original: "[...] a grande dificuldade, não querendo ser redundante, foi a falta de tempo de se trabalhar mais com os alunos e também com os professores. Uma aula, ou até mesmo duas aulas por semana para se trabalhar o Scratch é muito pouco".

It also made possible the contact with other knowledge and important actions for teachers and students of public schools in the interior of the state of Mato Grosso do Sul, to break with a reality full of absences, needs, and scarcity.

What seemed to us to be evident in this reflective exercise, based on the narratives of the teachers / Progetec's, was that this formative process took place through flows that alternate and feedback. All at the same time, in a kind of tangle of lines, drawing what Deleuze and Guattari (1995) call rhizomes.

By being part of a properly organized structure with well-defined hierarchies and procedures, the teachers / Progetec's were able to transgress some precepts such as the alternation of the teacher-student role. We also identified the cracks and cracks in the system, which made it possible to comply with the curriculum, but to dare in practice, adopting new technology for the group, Scratch. As lines of escape, we observe in the narratives, the exercise of revisiting their practices, reviewing ways of doing things, reframing the pedagogical action through overcoming fear, accepting challenges, and collaborative work.

Thus, we believe that continuing education contributed to the reflective exercise of teachers / Progetec's, in the sense of recognizing themselves in movement in the inventive process of teaching and learning, with ambiguous and therefore positive practices of ruptures, but also of continuities.

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NOTE:

The authors are responsible for the conception and analysis of the data, critical review of the text and also the approval of the final version for publication.