

The Critical Pedagogy of Paulo Freire in the Constitution of the Professional Identity of a Physics Teacher Educator

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Abstract. On the centenary of Paulo Freire, this research investigates the contributions of the Critical Pedagogy in the constitution of the professional identity of a Physics teacher educator. Through a semi-structured interview interpreted from the postulates of the Pecheutian Discourse Analysis, it is found that the life history, the critical reflection in the praxis on the Teaching of Physics, Physics and the problems of initial formation, as well as the fight against scientific denialism and *the hope* for the *ragged* of the world are constitutive of the identity of the formator.

1 The interface between teacher education and research in physics teaching from the Freirean perspective

Paulo Freire's dialogic-problematizing educational conception continues to represent a theoretically revolutionary alternative to the current impasse of scientific obscurantism experienced in the world, particularly in Latin America. From Freire's perspective [1], education is a form of action based on critical reflection and social transformation. Such understanding is guided by the formative proposition that men and women are unfinished subjects who seek their conclusion through critical reflection. According to Freire [2], education is an exclusively human manifestation, as it occurs in the consciousness of men as unfinished beings. Thus, education is remade in praxis, that is, in the action and reflection of men, aware of their inconclusiveness, for the transformation of their reality. In the context of such discussions, this research aimed to investigate the following question: Which assumptions of Freirian's dialogic-problematizing educational conception are evidenced in the discursive materiality of a future Physics teacher educator attending graduate program in Science Education?

2 Discourse Analysis as a theoretical-methodological contribution

Just as Freire reflects on the unfinished man, the discourse analysis ponders the issue of the incompleteness of language, since, according to Orlandi [3], neither subjects nor meanings are complete, already made, definitively constituted. Therefore, the constitution of the research corpus occurred through the recording of an interview, in which the participating teacher reflected on her formative process, the impacts of Paulo Freire on her representation of the teaching profession and the way in which Freire's theories can be appropriated in the processes of construction of scientific knowledge evidenced in the current challenges of the initial formation of Physics teachers. For the discourse analysis, an analytical device was built based on Orlandi [3] and the assumptions of the Freirian dialogic-problematizing educational conception [1-2].

3 Results and discussions

The contributions of Paulo Freire's Critical Pedagogy are intertwined in the process of construction of the professional identity of the future Physics teacher educator, which is made up of her identity as a researcher and a Physics teacher. In the construction of her identity as a researcher, the thoughts of Paulo Freire appear in the reflection on the professional identity that is built from life history and knowledge to build autonomy: [...] *I keep thinking that it is impossible for a teacher to have this autonomous professional identity without taking into account the collective, because the professional identity is individual and collective. [...] This knowledge is also built collectively on the school floor, with its trainers, colleagues, school management [...].*

The construction of identity as an educator is woven into the dialectical understanding of the formative process between the subjects and in the critical review of the difficulties in the pre-service Physics teacher education, including disciplinary formation in Physics: [...] *Physics is culture, and the role of Physics in society is to provide subsidies for citizens to critically reflect on Science, on technology, [...] so that you understand the role of this science today, especially now that we are living in a pandemic context and with the resurgence of scientific denial, for example, with the president of Brazil indicating the non-use of masks.*

Finally, the Life Story is amalgamated to her understanding of the world and her professional work: *I think that this hope to fight, comes especially from the context of my life story and the historical context in which I emerged [...] A phrase by Paulo Freire that I always remember, when he dedicates the Pedagogy of the Oppressed, he speaks like this -For the ragged of the world, who like me, meet, and when they meet, they suffer, but above all for them they fight, so I consider myself that person, the ragged of the world, and I'm going to fight for the ragged ones in the world, who were forgotten.*

4 Final considerations

The discourses show that professional identity is being consolidated in the confluence of reflections on what it means to teach and learn physics, which complicate the representation from physics teacher, through researcher, to physics teacher educator, and her life history, which is questioned by the ideology and the conditions of production, present in each of the resignifications. Thus, physics teachers education is inscribed in hope and love as understanding of the other, as attentive listening and fighting for social transformation.

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