Transcendence in the Formation of the Healthcare Professional for Changing Practice

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Abstract: Professional training is the subject of numerous studies and debates. Highlight for Health Education, object of this article. Within the proposition of new paradigms for the training of professionals, especially in the Brazilian Unified Health System (SUS), the formation now aims to lead the health professional to identify the social actors and transcend within a revolutionary practice from the point of view that, if empowered, will face tensions and, through critical and reflective actions, strengthens the SUS. This text is a synthesis of the discussions provided by the discipline of Educational Health Processes, developed in the year of 2018, during the Postgraduate Program in Clinical Management at the Federal University of São Carlos.

Key words: permanent education, active methodology, theory of meaningful learning

1. Introduction

The reflection on professional training for the Unified Health System (SUS) leads to numerous debates, among which the "why" and the "how" to train more critical professionals and also being able to start reflective processes in practice. In this sense, the practice has as a barrier to be able to transform the reality of the work environment and its power relations. That said, the empowerment of the perception of the actors who are in this tenuous game could tense or revolutionize the spaces of discussion in the sense of transcending them. Therefore, professional training must go beyond the reproduction of hegemonic models, strengthening new models, paradigms and reflective training. Parodying the famous Brazilian writer and journalist, Euclides da Cunha, the SUS worker is, above all, a revolutionary agent.

2. Theoretical Foundation

It is important to understand the new social reality brought by the changes in capitalism. Abrupt disruptions in interpersonal relationships, between groups and institutions impacted power relations in the microcosm of work, including the Unified Health System (SUS). Shifts in different contexts instigate changes in the conception of the world, in its relations, in the modes of production and in the forms of learning. As Freire (1996) denotes, traditional training is structured as a banking system based on memorization, the accumulation of content and the repetition of

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those, decontextualized from real life. This leads to the reproduction of individuals with low autonomy, little criticism and difficulties in assuming responsibilities.

Aside from this context, the experience of the learning process proposed by the Professional Master in Clinical Management, from the Federal University of São Carlos, refers to movements that a priori encourage master students and facilitators to leave the "comfort zone", problematizing their realities with a critical-reflexive perspective,enhancing the discussion and collective construction, to carry out academic researches and to re-signify professional practice and themselves.

Inspired by Freire (1996), being in the world implies choices, decisions with movements of exchange, reinvention, resistance, resilience, changes in oneself and in reality itself, which suggest the empowerment of the actors involved. In line with Alarcão (2001) dialoguing about the relation to the learning processes, we aspire to a reflective school, conceived as an organization that continuously thinks about itself, its social mission and its organization, being confronted with the development of its activity in a heuristic process that is simultaneously evaluative and formative. To educate means organizing demanding and stimulating learning contexts, which means training environments that favor the cultivation of healthy attitudes and the unfolding of individual capacities with a view to developing the skills that allow people to live in society. While learning is an ongoing process of building experienced knowledge, in which the school has a curricular role to play. Therefore, the strategic and flexible management of this guiding framework is attributed to the school.

Technological advances and innovations help in this regard. Likewise, such relativity is also seen in other methods considered more appropriate and modern. The relationship of how knowledge will take place and what will be the objectives for achieving this end depend, as far as possible, on the role of the political-ideological arrangement.

In this sense, the educational processes can optimize the skill in the formation of individuals who are critical and able to use the new post-revolution media tools. Knowing how to identify the difference between information and knowledge, and proposing reflections on how the new platforms contribute (or not) to democratize acquaintance.

With regard to the construction of new curriculum structures in Higher Education Institutions (IES), the encouragement of meaningful learning and autonomy should improve skills and knowledge at the pace of society in continuous and autonomous movement, in addition to the stimulus of new light technologies , with new professionals capable of reflecting and contributing with critical thoughts, thus stimulating their autonomy and, consequently, the autonomy of the SUS user.

2.1 Paradigms and the Theory of Significant Learning

It is noticeable that the training base can change or modify the training practice procedures, so it is explanatory about the approved training practice paradigm. It can be said that the paradigm of technical rationality according to Diniz-Pereira (2014) is one in which:

> "The teacher is seen as a technician, an expert who strictly practices such as scientific and/or pedagogical rules. Thus, to prepare the education professional, scientific and/or pedagogical content is necessary, or what is the support service for their practice. During practice, teachers must apply this scientific and/or pedagogical knowledge and skills." (Diniz-Pereira, 2014, p. 36).

On the critical rationality model, the education is historically localized — it takes place against a socio-historical background and projects a vision of a sort of future that is expected to be built — a social activity — that affects not only the social, a question of individual development -, intrinsically political — but also affecting how

life choices will be involved in the process — and finally, the problematic — "his purpose, a social situation that he models or suggests, or the path that he creates or determines relationships between the participants, the kind of environment in which he works and the type of knowledge for which he gives form " (Carr & Kemmis, 1986, p. 39).

With the new paradigm of critical rationality, the so-called Theory of Meaningful Learning (TML) is also stimulated, which, in this way, alters the focus of learning the techniques used by the teacher for the protagonism of the student.

For this, within the cognitivism and constructivist models proposed by Piaget, Vygotsky and Johnson-Laird, the human being starts to be described as possessing the creative capacity to interpret and represent as defended by the philosopher Kant. Thus, the student is no longer seen as a mere recipient of knowledge and becomes an agent for the construction of his cognitive structure. The teacher starts to have a new role in the learning process and the paradigms that defend a static, external and technical model "leave the scene" so that this new model works on a new social fabric that presents itself. There are two extremes where learning can happen: meaningful learning and mechanical learning. Both can be done in several ways: learning by reception, guided discovery or autonomous discovery. The new thing to be discovered needs to be anchored to something significantly relevant that already exists in the student's cognitive structure in order to be a meaningful learning, the so-called subsusters by Ausubel. On the other hand, learning that occurs in a way that is not anchored to subunits is called mechanical learning. It is suggested that there is a continuum between these two learning modalities. Thinking like this, in this continuum, even a mechanical learning can be anchored to subsunitors. However, perhaps, this movement depends more on the effort of the learner than on the educational offer (Santana, 2013).

In the cognitive construction in which meaningful learning takes place, potentially significant new information is anchored in subsunks (prior knowledge of a given subject) resulting in an interactive product, giving new information a new meaning. In addition, Valadares (2011) points out that:

> "The confrontation of the learner with potentially significant content [...] requires: that this content has logical meaning [...] not arbitrary [...] and that the learner has a potentially significant attitude, that is, a psychological predisposition to learn in a meaningful way." (Valadares, 2011, p. 38).

The isolated factor that most influences learning is what the student already knows, according to Ausubel (Santana, 2013), but we cannot lose sight of the fact that learning is an internalization of something new.

For Gestalt therapy, learning occurs at the contact boundary. Bearing in mind that contact occurs between Dasein (Being-world) and the unknown. Learning occurs when opening a gestalt, and will only accommodate and internalize (go to the bottom), if the cycle of this contact occurs fully, that is, if the gestalt is closed, regardless of whether the learning is significant or mechanical. What happens when learning takes place is that the person will come into contact with this new one and will select what is relevant to him. Whatever you do not consider necessary, important or relevant will be discarded.

Learning can be significant, mechanical or any part between these two. The learned content can go to the bottom and be incorporated into the self in some different ways, with greater or lesser qualities/complexities: Active, Iconic and Symbolic Representation. In the meaningful learning, this incorporation can happen more fully, being retained and anchored strongly to sub-subscores, being less likely to be forgotten, perhaps due to taking into account previous knowledge, improving the quality of contact and favoring the closing of open gestalten for this contact with the new. Meaningful learning can facilitate the incorporation of these new contents into the fund and the self

as an active representation, less complex and more integrated with the fund, being less likely to be forgotten.

Since the subjects present prior knowledge to support the new knowledge and are predisposed to acquire it, in a position of being able to have choices of what they will learn, in the paradigm of critical rationality, the role of the teacher who, generally, is in a hierarchically superior position is shifted to a position on an equal baseline with students.

It can be said that the teacher's role becomes to establish contact with students, in a dialogical relationship, with the function of triggering motivations, sensitizing different people to open the gestalten of their interest or need, thus inciting meaningful and collective learning.

3. Methodology

This text is a summary of the discussions provided by the discipline of Educational Health Processes in 2018, that occurred in the Postgraduate Program in Clinical Management (PPGGC) of the Federal University of São Carlos (UFSCar). The master's students systematized the studies in the format of a Reflective Portfolio and used, for this present work, the clipping of theoretical references of educational processes to problematize the training of health professionals.

4. Results

Within the scope of Significant Learning Theory (SLT) and its attempt to build itself as a practice within a new educational paradigm, the knowledge deepens in order to detect strategies for classes safeguarded by Active Teaching-Learning Methodologies (ATLM) and consequently, its assessment tools. Is sought, through such strategies, to discuss knowledge in a soft and more effective way, making the student the protagonist of his learning and responsible for the educational constructions that he will make for his repertoire throughout the course of life ("learning to learn").

Driven by the theoretical frameworks of Kant and Rousseau, constructivism shifted the center of the learning process from the binomial "content/teacher" to "reality/student" by emphasizing the role of the subject in the construction of reality. This important shift was built by authors like Piaget, Henri Wallon, Vygotsky, Paulo Freire, Libâneo, Saviani and Ausubel himself, among others, who solidified the foundations of constructivism through an educational approach that seeks to promote pro-activity, the theory-practice link, the transformation of reality and the construction of collaborative spirit among the actors of the teaching-learning process (Gomes et al., 2008; Lima, 2017).

In practice, SLT dialogues with constructivism and with ATLM from the moment the initial motto of these methodologies is the identification of students' previous knowledge and experiences in real or simulated situations. We can mention, as ATLM: case study, incident process, project method, scientific research, problem-based learning, problematization methodology with the Maguerez arc, teaching for understanding, community-oriented education, concept maps, learning project-based, team-based learning, cooperative learning, peer instruction, and the constructivist spiral, among others. Harmonization between SLT and ATLM follows the path by using reality to problematize the theory and, thus, gain meaning (Gomes et al., 2008; Berbel, 2011; Gemignani, 2012; Moreira & Ribeiro, 2016; Pinto et al., 2012; Silva et al., 2014; Lima, 2017).

In ATLM, the role of the teacher also changes radically, as it is assumed the role of mediator/facilitator to involve and make the student an active subject in the teaching-learning process, favoring the development of

creativity and the critical-reflexive spirit for the transformation of reality (Gomes et al., 2008; Berbel, 2011; Lima, 2017).

According to Sant'anna (2014), it is based on the critical and responsible awareness that everyone has in relation to the problem situation (real or simulated) that emanates the assessment in a prism of a liberating pedagogy, creating collective practice.

Evaluating this method of educating becomes as challenging as the offer of these new educational technologies. Therefore, it is essential to offer bases for the development of assessment tools and the use of differentiated strategies to facilitate, evaluate and stimulate students (Ferraz & Belhot, 2010), starting from an integration of the domains of knowledge: cognitive, affective and psychomotor.

Upon discovering that all students learned under equal teaching conditions, but differed in relation to the level of depth and abstraction of knowledge, Bloom's Taxonomy was created, which began to rank the process of abstraction of knowledge according to the aforementioned domains (Ferraz & Belhot, 2010). Based on this categorization, the assessment tools started to be intrinsically linked to the type of level of knowledge they want to measure within what has already been described as SLT. For the assessment, it is necessary to use formative and summative assessment instruments pre-combined with the students and appropriate to the level of development, as well as keeping coherence with the paradigm of critical rationality and with the theoretical framework of SLT. To check all domains of knowledge (cognitive, affective and psychomotor), it is necessary to use a combination of different assessment instruments, from dissertation assessments or multiple choice tests with contextualization of the theoretical framework, through assessment of the teaching process -learning and participating in classroom activities, even instruments that assess performance in practical activities, integrating all domains.

Significant learning should, therefore, trigger an internal conflict, enabling the student to transcend, in the way Kant apud Manieri (2010) quotes, the perception of how reality presents itself. Moving away from this possibility, cognition in learning is no longer relevant, but feasible in the same way. In the light of this observation, it is prudent to mention that a "humanist vision" is inserted in various sectors of knowledge production, due to the failure of reductionist proposals in human relations, which were previously considered to be the main paradigms. The praxis of such a concept can be gradually inserted in permanent education training in defined systems, such as SUS. The empowerment process provides a paradigm shift bringing benefits, either by improving social control (one of the pillars of SUS), or by the proposal to transform and qualify health care in an intersectoral perspective (Brazil, 2018), in order to provide the critical reflection of models and practices in the routine of health workers.

Ceccim (2004) ensures on pedagogical change and expectation of an image of the future, in the political struggle and in the tangle of connections, highlighting that there are noises from the daily work/communication processes that need to be heard so that there is a transformation in the quality of healthcare services and, this change takes place in an act and in a collegiate way. Added to this movement, we have training as an ethical-social commitment.

The so-called autonomy is not an institutional sovereignty. As the graduation is a socially important task, it must keep ethical and political commitments to society. Bearer of the future, graduation cannot be linked to traditional values, but to the movement of changes in society and to be capable of sophisticated listening to changing values. In this sense, autonomy must often seek to meet collective interests and the construction of novelty in knowledge and practices (Ceccim, 2004).

5. Conclusion

Active methodologies have been gaining space and proving to be adequate to the current social context. It is essential to state that the orthodox models, which are based on technical rationality, demonstrate insufficiency when it comes to covering all the issues that involve the teaching-learning process. Considering the active methodologies for meaningful learning, one can observe empowerment, autonomy and co-responsibility on the part of the apprentice subject, not only the teacher/tutor who, until then, in traditional methodologies, is always seen as the holder of knowledge.

In the context of the Professional Master's Degree, which was the locus of discussion of the theme for this work, there is a priority for reflection focused on the practice in Collective Health, in the training of teachers for Higher Education, in the training of health professionals and in the way gives the relationship of these with users/ community. The idea of a health professional as a holder of power and a user as a receiver loses meaning when the subject user of the system starts to be seen as someone who is responsible and has autonomy over his own care.

These reflections are only possible in view of applicability of active methodologies — as it is essential that the apprentice be able to apply in practice what is learned in concepts — thinking that the disciplines in the Health area today need to present a training consistent with the reality of SUS.

References

Alarcão Isabel (2001). *Escola reflexiva e nova racionalidade* (1st ed.), Porto Alegre: Artmed, p. 144.

Berbel Neusi Aparecida Navas (2011). "As metodologias ativas e a promoção da autonomia de estudantes", *Semina: Ciências Sociais e Humanas, Londrina*, Vol. 32, No..1, pp. 25–40.

BRASIL (2018). "Ministério da Saúde. Política Nacional de Educação Permanente", accessed on 25 April 2018, available online at: http://portalms.saude.gov.br/trabalho-educacao-e-qualificacao/gestao-da-educacao/qualificacao-profissional/politica-nacional-de-educacao-permanente.

Ceccim Ricardo Burg and Feuerwerker Laura Camargo Macruz (2004). "O Quadrilátero da Formação para a Área da Saúde: Ensino, Gestão, Atenção e Controle Social", *PHYSIS: Rev. Saúde Coletiva*, Rio de Janeiro, Vol. 14, No. 1, pp. 41–65.

Diniz-Pereira Júlio Emílio (2014). "Da Racionalidade Técnica à Racionalidade Crítica: formação docente e transformação social", *Perspectivas em Diálogo: Revista de Educação e Sociedade*, Naviraí, Vol. 1, No. 1, pp. 34–42, accessed on 30th May 2018, available online at: http://www.seer.ufms.br/index.php/persdia/article/view/15/4.

Ferraz Ana Paula do Carmo Marcheti and Belhot Renato Vairo (2010). "Taxonomia de Bloom: revisão teórica e apresentação das adequações do instrumento para definição de objetivos instrucionais", *Gestão & Produção*, São Carlos, Vol. 17, No. 2, pp. 421–431.

Freire Paulo (1996). *Pedagogia da autonomia: saberes necessários à prática educativa* (25th ed.), São Paulo: Paz e Terra, p. 166.

Gemignani Elizabeth Yu Me Yut (2012). "Formação de professores e metodologias ativas de ensino-aprendizagem: ensinar para a compreensão", *Revista Fronteira das Educação*, Recife, Vol. 1, No. 2, pp. 1–27.

Gomes Andréia Patrícia et al. (2008). "A Educação Médica entre mapas e âncoras: a aprendizagem significativa de David Ausubel, em busca da Arca Perdida", *Rev. bras. educ. med.*, Rio de Janeiro, Vol. 32, No. 1, pp. 105–111.

Lima Valéria Vernaschi (2017). "Espiral construtivista: uma metodologia ativa de ensino-aprendizagem", *Interface*, Botucatu, Vol. 21, No. 61, pp. 421–434.

Manieri Dagmar (2010). "O Transcendental em Kant", *Fragmentos de Cultura*, Goiânia, Vol. 20, No. 9/10, pp. 641–661.

Moreira Jonathan Rosa and Ribeiro Jefferson Bruno Pereira (2016). "Prática pedagógica baseada em metodologia ativa: Aprendizagem sob a perspectiva do letramento informacional para o ensino da educação profissional", *Periódico Científico Outras Palavras*, Vol. 12, No. 2, p. 93.

Pinto Antonio Sávio da Silva et al. (2012). "Inovação Didática - Projeto de Reflexão e Aplicação de Metodologias Ativas de Aprendizagem no Ensino Superior: uma experiência com 'peer instruction'", Janus, Lorena, ano 6, n. 15, pp. 75–87.

Sant'Anna and Ilza Martins (2014). *Por que avaliar? Como avaliar?* (17th ed.), Petrópolis: Vozes, p. 144.

Silva Luciana Saraiva da et al. (2014). "Formação de profissionais críticos-reflexivos: o potencial das metodologias ativas de ensino-aprendizagem e avaliação na aprendizagem significativa", in: *Revista CIDUI 2014*, Tarragona, No. 2, pp. 1–16.

Valadares Jorge (2011). "A Teoria da Aprendizagem Significativa como Teoria Construtivista", *Revista Meaningful Learning Review*, Vol. 1, No. 1, pp. 36–57, accessed on 25th April 2018, available online at: http://www.if.ufrgs.br/asr/artigos/Artigo_ID4/v1_n1_a2011.pdf.