

Critical Collaboration in Food and Nutrition Education in Schools: A Methodological Strategy for Teacher Training

Colaboração Crítica em Educação Alimentar e Nutricional na Escola: Uma Estratégia Metodológica para Formação de Docentes

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Objectives: Provide teacher training focusing on the development of Food and Nutrition Education (FNE) strategies for elementary schools based on critical collaboration. **Methods:** This is an intervention research based on Sociohistorical Psychology and Critical Collaborative Research (CCR). These theoretical frameworks are characterized by the shift in the perspectives of neutrality and by the commitment to produce knowledge through first-hand lived experience not only to describe it but also to modify it. Fifteen elementary school teachers and four pedagogical supervisors from three municipal schools of the city of Diamantina, Minas Gerais state, Brazil participated in the FNE teacher training program. **Results:** The development of the FNE teacher training program included eight reflective sessions that were carried out during the year 2015, in which the concept of FNE was discussed. Moreover, the analysis of the curriculum matrix was carried out enabling the teachers to identify the programmatic contents in which they could plan teaching activities including FNE in an interdisciplinary manner in different school grades, according to the level of difficulty in including it. The reflective sessions were carried by a team of researchers with different backgrounds and interests in the fields of Nutrition, Psychology, and Education. **Conclusions and Implications:** The reflective sessions contributed to the collective construction of knowledge on how to promote healthy eating in schools.

Palavras-chave

Educação Alimentar e Nutricional
Capacitação de Professores
Ensino Fundamental

Objetivos: Realizar formação de professores com vistas ao desenvolvimento de estratégias de Educação Alimentar e Nutricional (EAN) para o ensino fundamental pautada na Colaboração Crítica. **Métodos:** Trata-se de uma pesquisa/intervenção fundamentada teoricamente na Psicologia Sócio-histórica e na Pesquisa Crítica de Colaboração. Esse referencial caracteriza-se pela ruptura com perspectivas de neutralidade e pelo compromisso de produzir conhecimento sobre a realidade vivida não apenas para descrevê-la, mas com a intencionalidade de modificá-la. Participaram da formação em EAN quinze professores e quatro supervisoras pedagógicas de três escolas municipais da sede do município de Diamantina/Minas Gerais/Brasil que atuam no Ensino Fundamental I. **Resultados:** Para as atividades de formação oito sessões reflexivas ocorreram durante o ano de 2015. Nessas sessões o conceito de EAN foi trabalhado. Além disso, foi realizada a análise da matriz curricular, que permitiu aos docentes apontarem os conteúdos programáticos, a partir dos quais poderiam desenvolver atividades com inclusão de EAN de forma interdisciplinar nas diferentes séries escolares, de acordo com o grau de dificuldade. As sessões reflexivas foram conduzidas por equipe de pesquisadores com diferentes formações e interesses no campo da Nutrição, da Psicologia e da Educação. **Conclusões e implicações:** As sessões reflexivas promoveram a construção coletiva de conhecimento novo sobre como promover a alimentação saudável na escola.

INTRODUCTION

Food and Nutrition Education (FNE) has been discussed in Brazil as a field of action to improve Food and Nutrition

Security and for Health Promotion. It is characterized by transdisciplinarity, intersectorial approach, constituting itself as an important strategy for the promotion of healthy eating. Therefore, it should combine knowledge and practices in a

continuous and permanent manner, focusing on problem-posing approaches and educational resources¹.

The development and publication of important guidelines for FNE actions in different sectors of society, such as the Benchmark for Food and Nutrition Education for Public Policies¹ and the Food Guide for Public Policies called Food Guide for Brazilian Population² have revealed the recognition of FNE as an important strategy for Health promotion and the acknowledgement of the efforts that have been made to ensure it is included in Brazilian public policies. Moreover, in terms of incentives for scientific and technological knowledge production and for innovation in the FNE field, there has been a public call for research projects addressing this topic with financial support provided by the National Council for Scientific and Technological Development and Ministry of Social Development and Fight against Hunger.

With regard to its intersectoral approach, schools are commonly seen as an appropriate setting for development of Food and Nutrition Education actions. Schools are considered the second most important social group in which the individual is inserted, after the family, thus enhancing their value as an appropriate setting for promotion of healthy eating habits and for encouraging physical activity³. However, there are no theoretical and methodological reference frameworks available in the literature regarding these practices⁴.

Although there are important regulations that include the discussion about food and nutrition and the development of healthy lifestyle practices in the school as cross-cutting themes that permeate the school curriculum^{5,6}, there is a lack of innovative approaches to health education that could contribute to the implementation of actions that are effective and are in accordance with recommendations⁴.

It is important to emphasize that cross-cutting themes are not new subjects (or disciplines or learning areas) but rather a set of important issues related to daily life and which should be addressed in the existing disciplines or areas. This integration into conventional areas requires that basic education teachers have considerable knowledge of the cross-cutting themes which can be related to the regularly taught basic contents and to contemporary issues⁵.

This highlights the importance of continuing education for teachers. Studies on teacher training and education have demonstrated the need for new research approaches that, from a collaborative and critical perspective, allow the analysis of teachers' professional practice on a daily basis. This type of strategy enables researchers and teachers to deconstruct conventional meanings and construct new concepts and develop new approaches to teaching through repeated episodes of reflection and action. Accordingly, training programs offered to teachers are focused on

enabling them to see themselves as critical agents capable of making decisions taking into account sociocultural issues and interests that underpin the actions chosen⁷.

In the present study, we theorize and systematize a teacher training program for the development of FNE strategies in schools based on critical collaboration. This experience program was developed as part of the project called Development of a strategy for the training of educators focusing on promoting healthy eating among school children. It raised the following issues: the challenges teachers face to address FNE during classes and the possibilities for including this topic in their teaching activities. This article discusses the theoretical and methodological aspects which have been previously addressed by the authors as challenges for the implementation of FNE in schools.

This study is based on Sociohistorical Psychology (SHP)⁸ and Critical Collaborative Research (CCR)^{7,9,10}. These theoretical frameworks are characterized by the shift in the perspectives of neutrality and by the commitment to produce knowledge through first-hand lived experience not only to describe it but also to modify it. Sociohistorical Psychology understands the human being as having active, social, and historical aspects. It sees society as the historical production of human beings (who produce material life through work). It perceives ideas as representations of material reality. It conceives material reality as grounded in contradictions expressed in the ideas and history as the constant contradictory movement of human action⁸.

This study is based on Vygotsky's¹¹ ideas, one of the main historical-cultural and theoreticians and the founder of the sociohistorical approach. His work has become the foundation of much research and focused on the analysis of concrete reality, in all its complexity, considering three principles. The first consists of the analysis of reality as process, rather than the analysis of the product. It emphasizes that reality does not present itself as something that was given, and therefore it must be investigated. The second principle, closely related to the first one, emphasizes the need to analyze the historical development of the studied phenomenon, going beyond its immediately available aspects, i.e., those who reveal themselves in their appearances. Lastly, the author emphasizes the need to analyze the object of study considering its multiple determinations instead of just describing it.

Recent studies based on the principles of Vygotsky^{7,9,10,12,13}, highlight theorizations and indications of research procedures that guide the investigation of the entry into the field of research in a way that is committed to collaboration, creating a posture of understanding the needs of the other (research participants). In this direction,

Magalhães^{7,9,10,13} emphasizes the role of the Collaborative Critical Research (CCR) as a teacher training strategy, stating that any training model that separates theory and practice will not offer teachers an emancipatory experience, since it will not enable them to develop a reflective process that associates theoretical discussion and classroom practices.

These assumptions indicate that by connecting research and training, critical collaboration opens the possibility for participants (including researchers) to learn through collective participation throughout the process. All activities are carried out focusing on the production of meaningful knowledge and on producing changes in the teaching practices of the participants, the community, and the broader context in which they are inserted.

In order to illustrate the use of the methodological approach critical collaboration, the following section will present a program for teacher training in EAN in the elementary school level in three municipal public schools.

METHOD

Research participants

The approach to critical collaboration in Food and Nutrition Education was employed by an intersectorial and interdisciplinary team including researchers with different backgrounds and interests in the fields of Nutrition, Psychology, and Education, as well as universities and the local government of the city of Diamantina. The team was composed of five researchers working in the field of Nutrition, one researcher in the field of Psychology, one researcher in the field of Education, three Nutrition students, one psychologist, and one nutritionist working for the Diamantina local government.

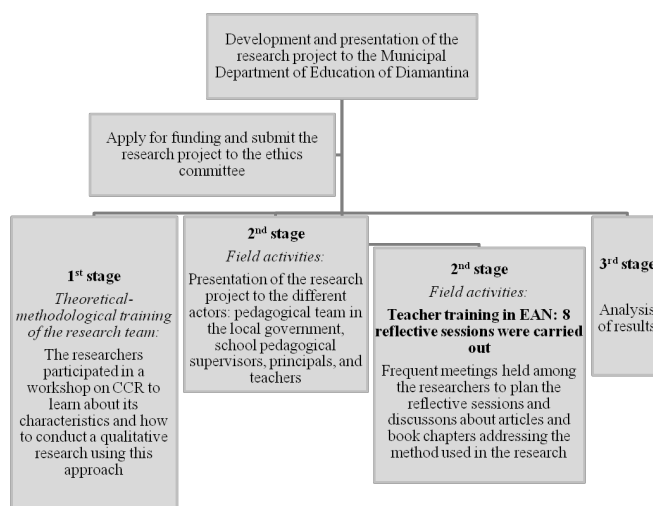
Fifteen elementary school teachers and four pedagogical supervisors from three municipal schools of the city of Diamantina participated in the training in FNE. The participating schools were chosen by the Education Department of the municipality, having as criterion the proximity of these schools of the place where the meetings would be held.

The present study was approved by the Ethics Committee for research on humans of the Federal University of the Vales do Jequitinhonha and Mucuri (Protocol # 725.464). The training program using critical collaboration, which will be described below, took place in the city of Diamantina, Minas Gerais, Brazil.

The research project containing the training program was proposed by the researchers to the Municipal Department of Education. It was accepted because they recognized that a

partnership with the local university was a great opportunity for teacher training. The present study was carried out in 2014 and 2015. The training program presented here was divided into three stages: the first one referred to the theoretical and methodological training of the research team; the second concerned the field activities; and the third referred to the analysis of the results obtained. The major focus of this study was on the second stage, describing and discussing the activities carried out, especially in the last part of this stage, which was the teacher training in FNE (Figure 1).

Figure 1- Flowchart of the stages used in the teacher training in Food and Nutrition Education. Diamantina, Minas Gerais, Brazil.



As previously described, the field activities took place in 2014 and 2015. During the first months of 2014 (February and March) the contact with the local government was established to present the research project, explaining the methodology to their pedagogical team. During these months, possible demands were verified and the schools were invited to participate in the research. After the schools' agreement to participate, interviews with teachers were conducted to gather preliminary information about the meanings they assigned to Food and Nutrition Education at the schools. The food and nutrition contents in the textbooks adopted by them were also analyzed.

The critical collaborative approach consisted of eight reflective sessions held between April and November 2015, based on the reflective sessions proposed by Magalhães^{7,9,10,13}. In their studies carried out in school contexts these authors states that in the collaborative dialogue, teacher and researcher participate in the interpretation of reality and both demonstrate their understanding of the situation and how to solve the problems. Similarly, González Rey¹⁴ argues that researchers

have an active role in what he calls “conversation”, encouraging participants’ involvement, observing the reflections that arise and what they led to. This approach allows transcending their intentional and rational answers, promoting the reflection among the participants leading to discussions with the researchers. These sessions were good opportunities for dialogical interaction between researchers and teachers. The discussion sessions were held on a monthly basis and lasted approximately one and a half hours. They were carried out by one of the researchers with the collaboration of the others.

The reflective sessions were planned following a script that contained the following questions: what? (description of activities to be carried out); why? (justification of the activity proposed); what for? (expected results of the activities); how? (methodology or strategy used to carry out the activities); and who? (appointment of an activity and participant coordinator). The meetings were held after the development of this planning.

It is important to emphasize that the research team was also a study group which met frequently to discuss articles and book chapters related to the object of study and methodological approaches used. Some researchers lived in other cities and were therefore unable to participate in the entire collaborative/training process. However, they participated through long distance technological communication resources. As for the participation of the participants, Desgagné¹⁵ argues that based on a common project collaborating means that every participant collaborates by offering a specific contribution benefiting the entire group without requiring that everyone participates in the same tasks all the time.

After the meetings, the researchers met to evaluate the discussion sessions and plan the next meeting. It is worth mentioning that all meetings’ reports were posted on a bulletin board containing the following information: meeting date and duration, issues discussed, and observations made in order to objectify what was experienced and understood. According to Franco¹⁶, information obtained from the meeting records is fundamental for discussion, reflection, appropriation, and resignification among the group, is gradually transformed into knowledge of the research process.

RESULTS AND DISCUSSION

Description of reflective sessions

The first reflective session was aimed at establishing initial agreements with the participants. Therefore, firstly, the proposal of the critical collaborative approach was

presented to the teachers and the team of researchers was introduced to them. The teachers received and signed the Informed Consent Form regarding the ethical aspects of the research. The researchers presented the schedule of activities, which was modified according to the teachers’ remarks. Finally, the preliminary results of the interviews conducted with the teachers were presented and discussed. Here, it is possible to emphasize, from the preliminary analysis of excerpts from the teacher’ statements, that they presented elementary and superficial concepts about food and nutrition, demanding a deeper understanding of the subject.

The following session focused on the results of the preliminary analysis of the textbooks used by the teachers. At that time, it was important to understand how the teachers used the books in their classroom and identify the contents that could facilitate the inclusion of FNE in classroom activities and those that could make this inclusion difficult.

The analysis of the textbooks revealed the need to discuss the Common Basic Curriculum, another resource for teachers that provides guidelines for classroom activities; it was discussed in the two following sessions. In the third reflective session, the central questions were related to whether and how the Common Basic Curriculum was used by the teachers for lesson planning. In the fourth session, the teachers were divided into groups in order to analyze the Common Basic Curriculum and classify the contents according to the ease with which they can be related to FNE.

For this activity, the teachers were asked to analyze the Common Basic Curriculum and to evaluate the feasibility of FNE inclusion in an interdisciplinary manner in the different school grades. Thus, the teachers were divided into five groups; each group included teachers with grade-specific experience. The teachers were then instructed to choose one interdisciplinary activity (to be used in different disciplines: Portuguese, mathematics, history, geography, etc.) that should be planned and presented in the subsequent reflective session.

The fifth session was held after the teacher’s thirty-day vacation period, and it started with a recall of previous discussions. This meeting enabled a partial evaluation of the process identifying the points that needed clarification or further discussions. Moreover, the teacher groups presented the interdisciplinary activities (for each different school grade) in which Food and Nutrition would be easily included.

The recall of previous discussions showed the need to focus on the fundamental aspects of training - what, how, and why the activities were being created. Accordingly, in the sixth session, before the teachers presented the activities they had planned, the teachers were given the

opportunity to express how they perceived themselves and understood the process they were participating.

At the end of this session, the teachers were asked to create activities (for the different school grades) which they believed would be very difficult to include FNE. These activities would be presented in the seventh session.

The last session was devoted to the valuation of the process and end of activities. Furthermore, two questionnaires were applied; one was composed of questions aimed at verifying whether the teachers understood the concept of FNE and whether they could address it to their students in a cross-cutting manner. The second questionnaire evaluated the reflective sessions in terms of the importance of the topic discussed, the contribution of the training sessions in FNE, duration of, and approach used. The team of researchers was also evaluated in terms of their knowledge of the content, their teaching methodology, their motivation, and their teaching effectiveness.

Analysis of the training program

Based on Vygotsky's ideas, this research aimed to study the "phenomenon in movement", and therefore we consider that there is not a single method to be used in the development of the actions because the method is simultaneously "prerequisite and product, the tool and result of the study"¹¹. Therefore, the description of the critical collaborative approach represents a possibility of providing training connected with research producing knowledge about the possibilities of including FNE in teaching activities that could motivate nutritionists to use it in different contexts.

It is worth highlighting that the discussion sessions were organized following Magalhães⁷ guidelines as favorable opportunities to discuss classroom practices and understand and modify them based on new information acquired during the discursive exchanges between teachers and researchers and they are therefore, an effective tool for teacher training. Discursive exchange is essential for identifying concepts that need to be deepened to broaden theoretical knowledge. Therefore, the choice of strategies was fundamental for carrying out the reflexive sessions motivating teachers to express their thinking, feeling, and acting in response to the proposals made by the team of researchers.

Listening to teachers' needs and dissatisfactions, as well as the proposal reformulation during the reflective sessions, with the participation of everyone, was important to recognize the active participation of each individual involved in the critical collaborative approach.

The first and second meetings were important to clarify the methodology proposed, critical collaboration, reaffirming its role in the collective construction of knowledge and the relationship between theory and transforming practice. Moreover, during these meetings the concept of Food and Nutrition Education was comprehensively discussed, including not only its biological aspects, but also the cultural, social, and historical aspects and the food production chain.

During the discussions, the teachers recognized that although they considered the inclusion of FNE in schools important, there were no objective conditions for its implementation. Accordingly, they pointed out that the lack of professional training, insufficient time to address the contents, lack of support resources for teaching, inadequate schools' physical structure, low socioeconomic status of the families, and lack of knowledge to deal with childhood obesity in the classroom hinder the inclusion of this topic in curricular activities.

The cross-cutting characteristic of the Food and Nutrition Education theme was discussed in order to broaden the perspective that it can be included in teaching activities without overloading the work of the teacher. Therefore, we discussed the possibility of including this theme in all disciplines.

This assumption guided the discussions in all sessions, especially the discussions about the classification of the curriculum matrix contents. Thus, the teachers, with the supported of the team of researchers, focused on the analysis of the curriculum matrix adopted in the municipal schools in order to identify the contents in which Food and Nutrition Education could be included in a cross-cutting manner. According to the methodology described above, after content classification, all teachers presented, in the discussion groups, the activities that were identified in the curriculum matrix.

The need to find the best way to implement this proposal was constantly emphasized, and the whole team devoted close attention to the need to prioritize, in the teaching training program, actions that could ensure critical collaboration to promote collective learning. Here, it is worth highlight Vygotsky's ideas of learning and development and the concept of Zone of Proximal Development (ZPD). According to Vygotsky^{11,17}, learning only makes sense when it comes before development, motivating and unfolding a number of psychological functions that were in the process of maturing. According to the author, learning and development are understood as collective and collaborative social constructions rather than as individual processes since learning awakens a variety of internal development processes that are able to operate only when there is

interaction and cooperation with other people. It is in this context that he introduced the concept of ZPD (Zone of Proximal Development) to argue that the intentional relationship between educator and learner is a determining factor for learning^{11,17}.

Magalhães⁹ explains that the concept of ZPD represents not only knowledge acquisition with the help of the other but also a relationship established for the full development of the person, or in Vygotsky's own words: "development is based on collaboration (...) is the source for the appearance of all specifically human characteristics of consciousness"¹⁷. This has had considerable implication for human learning contexts, such as that discussed in the present study.

In this context, at the same time the researchers tried to listen attentively to what the teachers were saying, they had the role of moderators and had to generate discussions about the meanings, concepts, situations, reasons, or values accepted as true by the participants through questions that motivated them to reflect on their professional practice⁷. The discussions were extremely important because they promoted dialogue and collective construction of knowledge between the teachers and researchers, as well as critical reflection on the factors that facilitate or hinder the inclusion of Food and Nutrition Education in a cross-cutting manner in the curriculum matrix contents.

According to Vygotsky, language is the most important of all symbolic systems created by human culture, and he sees it as a constitutive human faculty and as the main mediation tool between man and social knowledge¹⁷. With regard to the relationship between thought and word, the author argues that the understanding of language is the fundamental key to human understanding; he said that "Consciousness as a whole has a semantic structure", and thought is a mediated process which is expressed through words. Vygotsky believed that word meaning is created through the concurrence of language and thought since it is "a unit of the verbal thinking"¹⁷.

In order to understand how teachers see and feel about Food and Nutrition Education, it is necessary to understand their thoughts and therefore understand how these individuals express their ideas about a particular phenomenon or situation. It is important to emphasize that speech carries the sense and meaning. Senses are more personal, displayed by individuals through their history and experiences, letting us to perceive their way of thinking, feeling, and acting. Meanings are more stable and dictionarized, allowing communication and socialization of lived experiences¹⁸.

In the contact with the other and in contexts of intentional activity (like those investigated here), individuals display their senses to the group, that is, they share

experiences, knowledge, doubts, affections, and emotions. In the mutual relationship, they can be deepened and resignified, broadening the understanding about the object of discussion. In deliberately organized discussions such as those held in the present study, a subject expressing himself "carries the tone of other voices, revealing not only their own uniqueness, but also, and at the same time, the reality of their group, gender, social class, and historical and social moment"¹⁸.

Therefore, the method adopted here is a research tool that produced results that were shared during the investigation because throughout the research there were opportunities to share information, experiences, and procedures that can lead to resignifications and learning for all; in Vygotsky's words:

The search for method becomes one of the most important problems of the entire enterprise of understanding the uniquely human forms of psychological activity. In this case, the method is simultaneously prerequisite and product, the tool and the result of the study¹¹.

CONCLUSIONS AND IMPLICATIONS FOR RESEARCH AND PRACTICE

We believe that the aforementioned factors contributed to the changes in the approaches to teaching Food and Nutrition Education to go beyond a strictly biological approach, including its cultural, social, and historical dimension.

It is worth noting that the challenge of addressing FNE, a broad and complex topic that involves several disciplines related to field of Food and Nutrition, will not be met through a single research and extension project. However, we hope that this program can demonstrate the possibility of promoting a new way of thinking and addressing FNE in schools, considering the individuals involved their needs, their daily lives, and objective conditions of life.

Furthermore, the present study demonstrates the need to provide more intensive and comprehensive teacher training to better understand their discourse, i.e., it is fundamental that researchers make an effort to fully understand the subjects' (teachers) views and conceptions by not dwelling on their words but searching for the historicity, the genesis, the process, the unsaid, and the sense.

We believe that the teacher training strategy in FNE adopted in the present study can contribute to the collective

construction of knowledge and the resignification of others referring to food and nutrition. It is from the appropriation of this more comprehensive and collectively constructed knowledge that the methodological strategy presented here may contribute to materialize what is established in Law nº 13.666 of May 18, 2018, which will come into force in November 2018. The said Law adds in article 26 of Law 9394/1996 (Law on Guidelines and Bases) that "food and nutritional education will be included among the cross-cutting themes"^{19, 20} in the basic education curriculum, while stressing that the theme must be approached transversally in the disciplines obligatory and not in specific subjects, which coincides with the methodological proposal of the present study. We emphasize that such materialization will be fundamental for the effective promotion of healthy eating in schools.

However, if on the one hand these initiatives represent a step forward, on the other, they pose great challenges, since they deal with process, imply collective, interdisciplinary and intersectorial work that must involve not only teachers and researchers/nutritionists in the planning, development, monitoring and evaluation of the insertion of the FNE actions in the disciplines of the pedagogical political plan of the schools, but also implies the involvement of the municipal secretariats of education, of the directories and pedagogical coordinations of the schools in a joint effort to create objective conditions so that the constant demands arising from the dynamic process effectively.

REFERENCES

1. Brasil. Ministério do Desenvolvimento Social e Combate à Fome. Secretaria Nacional de Segurança Alimentar e Nutricional. Marco de referência de educação alimentar e nutricional para as políticas públicas. Brasília: O Ministério; 2012. 68p.
2. Brasil. Ministério da Saúde. Departamento de Atenção Básica. Guia alimentar para a população brasileira. 2. ed. Brasília, DF: Ministério da Saúde; 2014.
3. Brasil. Ministério da Saúde; Organização Pan-americana de Saúde. Escolas Promotoras da Saúde: uma experiência do Brasil. Brasília, DF: Ministério da Saúde, 2007. 304p. (Promoção da Saúde, 6).
4. Ramos FP, Santos LAS, Reis ABC. Educação alimentar e nutricional em escolares: uma revisão de literatura. Cad. Saúde Pública 2013; 29: 2147-61.
5. Brasil. Secretaria de Educação Fundamental. Parâmetros Curriculares Nacionais: introdução aos parâmetros curriculares nacionais. Brasília, DF: A Secretaria; 1997; 126p.
6. Brasil. Ministério da Educação. Fundo Nacional de Desenvolvimento da Educação. Conselho Deliberativo. Resolução nº 26, de 17 de junho de 2013. Dispõe sobre o atendimento da alimentação escolar aos alunos da educação básica no âmbito do Programa Nacional de Alimentação Escolar – PNAE. Diário Oficial da União. Diário Oficial da União 18 jun 2013; Seção 1. Disponível em <http://www.fnnde.gov.br/fnde/legislacao/resolucoes/item/4620-resolu%C3%A7%C3%A3o-cd-fnde-n%C2%BA-26,-de-17-de-junho-de-2013>.
7. Magalhães MCC. A Pesquisa Colaborativa em Linguística Aplicada. In: Fidalgo SS; Shimoura AS, organizadores. Pesquisa Crítica de Colaboração: um percurso na formação docente. São Paulo: Ductor; 2007.
8. Bock AM, Gonçalves MGM, Furtado O., organizadores. 5. ed. São Paulo: Cortez, 2011. Psicologia Sócio-Histórica: uma perspectiva crítica em psicologia; 2011: 17-18.
9. Magalhães MCC. O Método para Vigotsky: a zona proximal de desenvolvimento como zona de colaboração e criticidade criativas. In: Schettini RHS, Damianovic MC, Hawi MM, Szundy PTC, organizadores. Vygotsky: uma revista no início do século XXI. São Paulo: Andross; 2009: 53-73.
10. Magalhães MCC. Por uma prática crítica de formação contínua de educadores. In: Fidalgo SS, Shimoura AS, organizadores. Pesquisa Crítica de Colaboração: um percurso na formação docente. São Paulo: Ductor; 2000: 94-5.
11. Vigotski LS. A Formação Social da Mente: o desenvolvimento dos processos psicológicos superiores. 6. ed. São Paulo: Martins Fontes; 2003: 77-86.
12. Ninin MOG. Pesquisa e formação na perspectiva crítico-colaborativa. In: Magalhães MCC, Fidalgo SS., organizadores. Questões de método e de linguagem na formação docente. Campinas, SP: Mercado de Letras; 2011: 95-118.
13. Magalhães MCC. Vygotsky e a Pesquisa de Intervenção no Contexto Escolar: a Pesquisa Crítica de Colaboração – PCCol. In: Liberalli FC, Mateus E, Damianovic MC., organizadores. A teoria da atividade sócio-histórico-cultural e a escola: Recriando realidades sociais. Campinas, SP: Pontes; 2012: 13-26.
14. González Rey F. Pesquisa Qualitativa e Subjetividade - Os processos de construção da informação. São Paulo: Pioneira Thomson Learning; 2005: 45-46.
15. Desgagné S. O conceito de pesquisa colaborativa: a ideia de uma aproximação entre pesquisadores universitários e professores práticos. Rev Educ Quest 2007; 29: 7-35.
16. Franco MAS. Pedagogia da Pesquisa-Ação. Educ and Pesq 2005; 31:483-502.
17. Vigotski LS. A Construção do Pensamento e da Linguagem. São Paulo: Martins Fontes; 2010.
18. Freitas MTA. A Abordagem Sócio-Histórica como Orientadora da Pesquisa Qualitativa. Cad Pesqu 2002; 116: 21-39.
19. Brasil. Lei n.9.394, de 20 de dezembro de 1996. Estabelece as diretrizes e bases da educação nacional. Brasília. Disponível em: http://www.planalto.gov.br/Ccivil_03/leis/L9394.htm.

20. Brasil. Lei n.13.666, de 16 de maio de 2018. Altera a Lei n.9.394, de 20 de dezembro de 1996 (Lei de Diretrizes e Bases da Educação Nacional), para incluir o tema transversal da educação alimentar e nutricional no currículo escolar.

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