Theme Section: Education in health pandemic contexts Covid-19

Problematizing methodologies and conceptions of learning: how teachers have perceived the impact of the Covid-19 pandemic*

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Abstract

This is study is a break-up of a master´s dissertation presented to the Graduate Program in Professional Education (ProfEPT)[2] at the Federal Institute of and is intended to identify teachers´ perceptions of how the teaching and learning process took place in the remote classes and, soon after, when face-to-face classes were resumed. The objective is to analyze the impacts perceived by teachers at the State Center of Professional Education "Fahter João Greiner", related to the students´ learning while working at integrated high-schooling during the SARS-COV-2 pandemic. Active methodologies are those promoting protagonism and autonomy among students, mainly the so-called problematizing methodology which are, for this reason, indicated to conduct teaching towards actions that are transforming, dialogical and reflexive, so much required on these days. The research utilizes an applied qualitative and the objectives were apprehended in a descriptive fashion. The method is a research-action whose investigative itinerary was established by the steps of the Methodology of Problematization using Maguerez Arc with data being organized in order to generate results, based on the principle of Textual and Discourse Analysis (TDA). The process materialized in a proposal of producing a didactic textbook while teacher training is conducted along the collaborative research-action. As a result, an increase in educational inequality was observed as well as a deficit in the students´ learning aggravated by relationship problems. Discouraged students and teachers who, despite being provided with a minimum input of technological resources, were not qualified to use them.

Keywords

Education – Pandemic – Learning conceptions – Methodology of problematization.

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2- Data are publicly available in free-access databases. Available (in Portuguese) at: *Questionário inicial e Metodologia da Problematização com grupo focal mais assembleia de professores* [Data set]. Zenodo. https://doi.org/10.5281/zenodo.10120268

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Introduction

The pandemic had a huge, widespread impact on society, starting in 2020 and caused by SARS-CoV-2 (Saraiva; Traversini; Lockmann, 2020). Education underwent changes which required from teachers an extra effort boosted by the increase use of Digital Information and Communications Technology. Having that moment in mind, Nóvoa and Alvim (2021) argue that, when the face-to-face classes returned, the old educational modes begin to be replaced. That is why we are in a time of constant changes in accelerated rhythm which affect the economy, culture, and education. The reason is that the world has changed under the growing influence of technologies. Then, in the face of adversities, when remote instruction becomes mandatory due to the pandemic, we observed how such process occurred as well as going back to in-person classes in an integrated high school, conducting a research-action to analyze the teachers´ view regarding a pedagogical practice intended to promote some sort of education capable of tackling the such ups and downs.

This study represents in part a cut of the investigation conducted at the Graduate Program in Professional Education (ProfEPT) of the Federal Institute of , Campus of Campo Grande, MS. The observations allowed to identify that teachers, in the teaching and learning process, must prioritize moments of interaction with the students and among them, making room for a dialogical setting. “The interactions with students do not represent, therefore, a minor or peripheral aspect of the work teachers do: interactions are the core, and for this reason, they determine – as we see it – the very nature of the procedures and, therefore, of pedagogy” (Tardif, 2005, p. 119).

Considering the challenges teachers are confronted with, as a result of remote teaching, most of them show the need for more knowledge so that a change in pedagogical practice can be boosted. The objectives of this study are: to analyze the conceptions teacher have related to the guidelines set by the state school system of for the pedagogical practice in professional education and learn the initial impact the pandemic caused on teachers and how they tackled the adversities in the context of continued training on the integrated high school level when searching for active learning, based on methodologies of problematization.

The research has an applied qualitative approach where the objectives are apprehended in a descriptive fashion. The method to be used, based on Thiollent (1986), takes into account the principles of research-action, whose analytical scenario is Maguerez Arc, according to Colombo and Berbel (2007). Data are generated by means of documents, questionnaire and a focus group. The principle of Textual and Discourse Analysis (TDA) is the method used to organize data that will generate results.

Historical contextualization of remote instruction in : guidance by the State Department of Education

The State Center for Professional Education Father João Greiner, in an internal communication by the State Department of Education (SED-MS), dated 23 March 2020,

circular No. 143, received the following guidance regarding the temporary measures to be taken in order to prevent risk of infection by Covid-19. They included: face-to-face classes being suspended as well as in-person service to the public, except for delivery of documents requested by the community; posters to be placed at the schools with information to the people about remote classes; and the creation of a minimum roster of employees for in-person service.

In relation to teachers, regarding pedagogical activities for the remote period, another internal communication by SED - MS, of 19 March 2020, circular No. 989, required teachers to prepare supplementary pedagogical activities (APCs) to be sent to the students while emergency remote classes were being given. These activities and the communication with students, according to Mato Grosso do Sul (2020b), might occur by means of printed materials, Google Classroom, WhatsApp groups, e-mail messages, and they should indicate the actions in detail, the skills and introduce theoretical contents using language compatible with the students´ learning level. Teachers should, clearly and objectively, conduct the activities with explanations, hints, and exercises as examples. Regarding the evaluations, students should be informed about how they would be done and the respective timelines.

Also, in a stretch of Internal Communication No. 989, about the teaching and learning process, students are requested to perform the activities at home. Teachers are told not to make use of excessive copies of contents so that quality learning is promoted with activities that are consistent and significant. As an example, Mato Grosso do Sul (2020b), for the Area of Languages and Their Technologies, proposed the theme of the culture of that specific state, to be worked on the artistic, literary, linguistic and cultural aspects, in an interdisciplinary fashion, to bring students closer to the cultural roots of the state.

The didactic strategy suggested should arise from research. Thus, the student becomes protagonist by researching the linguistic variations, regional music, typical dances, culinary, and the influence of other languages. The activities students were asked to perform could be through writing news, TV news, complaint photos, documentaries and editorials, in an interdisciplinary perspective. Once the activities had been done, students should presente the outcome to the community using social media, digital news, blogs, and websites (Mato Grosso do Sul, 2020b).

In May 2020, Mato Grosso do Sul (2020a), on Guidance to teachers when conducting no-contact activities to prevent COVID-19, indicates

> [...] Supplementary Pedagogical Activities be prepared in a way that the teacher takes the role of supervisor and facilitator of learning, so that each student constructs their autonomy and the knowledge proposed in a relatively independent and creative way. The intended contents, skills, and competences may be developed through a variety of activities such as projects, reports, researches, seminars, directed studies, case reports, observations, video classes, podcasts, web quest, forms, list of exercises, applications and platforms, either online or offline. (Mato Grosso do Sul, 2020a, p. 2).

Subsequently, still in the second school term, in a new Internal Communication, No. 1.368, of 22 June 2020, SED - MS, when face-to-face classes were still suspended, send

guidance associated with the Supplementary Pedagogical Activities in July 2020, following the same pattern included in the previous ones. Later, other internal communications were sent to teachers postponing the return to in-person classes until mid-2021. After the mid-year school holidays, on July 1st, 2021, the SED - MS website publishes a news story telling face-to-face classes are to be resumed, in alternate turns, on August 2nd, 2021. Adopting this scheme, depending on the level of risk indicated by Prosseguir (the official body controlling the pandemic), the average attendance in the in-person classrooms would be 30%, 50%, 70%, 90%, and 100% of students (, 2021), that is, the more severe the risk, less attendance.

New guidelines set forth by SED - MS, on July 7th, 2021, through Internal Communication No. 991, indicate that classes will take place in a spread way, that is, "a group will develop in-person pedagogical activities while the other group will do Supplementary Pedagogical Activities on the days with no-contact classes". That is the way classes were given until September 29th, 2021; in Internal Communication No. 123, a SED - MS, the text title in the document is quite enlightening: *General guidance for the full return to face-to-face classes in the State School System of* , with the guidelines concerning classes being resumed on a 100% in-person basis, starting on October 4th, 2021, as a result of the spread of vaccination and a favorable report issued by Prosseguir.

Conceptions of learning which underlie teachers´ pedagogical practices

The pedagogical practices guiding the path a teacher takes (his/her teaching and learning actions) presuppose certain objectives and intents; then in an either conscious or an unconscious way, their teaching arises from the choices they make including: methodologies, didactic situations, evaluation procedures, and other elements which organize the pedagogical work. That is why it is indispensable to have a deeper comprehension of such aspects.

Therefore, for a teacher to find theoretical subsidies and understand the differences and verify, basaed on the historical moment how the pedagogical thought evolved, we shall turn to Ijuim (2015) who provides us with an overview of such evolution starting in the 17th century and adds an account of the advancement of science in this area. Firstly, the presents the mechanicist paradigm when Science discovers new methods of investigation: the induction method, through Francis Bacon and the deduction method, conceived by Descartes. The objective was the emancipation of man, for example, getting him rid of Church´s influence; that is why man was imagined as a subject. Ijuim (2015) presents John Locke´s reductionist thinking: when a man is born his is a clean slate and knowledge is recorded in a one-way relationship "between the *subject and the object that is being known*, which encouraged the *objectivist* view according to which knowledge [...] is available and the subject of learning must to apprehend it through his senses" (Ijuim, 2015, p. 31, original emphasis).

In the perspective of objectivity, the subject is merely a recipient: he or she acquired knowledge that comes from outside. Its origin is a result of Realism and Empiricism, leading to a pedagogy whose center is the teacher, typically seen in the traditional

technicist school with strong hierarchical relations and focused on teaching through the transmission and reproduction of knowledge. According to Giusta (2013, p. 23), "in behaviorism, psychology is presented in a scientific conception that guarantees objectivity where learning is identified with conditioning". Pedagogical strands following this line, such as behaviorism, lead to a sort of didactics which enhances the "reproduction (*or accumulation*) of knowledge" (Ijuim, 2015, p. 31).

Moreover, according to this traditional line, as seen by Giusta (2013, p. 24), the "psychological strand of gestalt, born in Germany with Koffka, Kohler and Lewin, is contrary to behaviorism as it presumes that all knowledge is previous to experience, being the fruit of the exercise of rational structures, pre-formed in the subject". From what has already been seen, one can realize that positivism despises the subject`s action onto the object; rationalism, instead, despises the object`s action onto the subject. That is precisely the reason that both strands are reductionist.

Along the historical process in the 20th century, based on Kant and on humanist psychology of Carl Rogers, there came the perspective of subjectivity, an approach directed at the person and at the internal processes of the consciousness. Typical of the Brazilian New School view of education, we find the pedagogy centered around the student, in a relationship of equality. It is focused more on learning by promoting knowledge through the update of potentials. One can note an advancement in relation to the previous theories, but it has the limitation of "disregarding the reciprocity in the subject-object relationships, as well as the influence of ambience onto the teaching-learning process" (Ijuim, 2015, p. 31).

Following the time track, opposed to these approaches, Piaget, influenced by Marx´s dialectics, developed the perspective of cognitive dimension, where the actions of a subject onto an object take place "by means of a process of assimilation and accommodation" (Ijuim, 2015, p. 31). Concerning the cognitive assimilation, Giusta (2013, p. 29) says that the "subject acts onto the objects surrounding him or her by applying schemes that have been formed or have already been requested before".

One can notice in there an active subject who acts upon his or her object using knowledge, and this is a constitutive process through which there is an exchange between the subject and the object. This strand originates from Rationalism and Structuralism, conceives that knowledge is not within the object neither in internal processes, but rather in the action between the subject and object. It is typical in constructivist education, with Piagetian psychology. It is a student-centered pedagogy, based on a relationship of equality, however the learner is the one who constructs knowledge (Ijuim, 2015).

There was an advancement in relation to the previous conceptions, however Piaget is too concerned with the instruments leading to knowledge, in a "Formal Logic, which makes him neglect the Dialectic Logic" (Giusta, 2013, p. 32). Vygotsky, in turn, under Marxist influence, drawing from the socio-historical theory, goes further and advocates for the connection between *subject and object* "through the mediation of the other *(social)*, making up a pedagogy centered around the activities of the individuals in interaction" (IJUIM, 2015, p. 32, original emphasis). The socio-historical perspective presents the subject as a social being that constructs his/her own individuality. It focuses on teaching and learning, promoting knowledge as social construction.

This new perspective of teaching and learning, according to Giusta (2013), which appreciates the socio-historical context results from the former views sometimes confronting and sometimes cooperating, dialogically, by improving them to subordinate them in order to overcome the "dichotomy transmission [versus] production of knowledge", which leads to a conception of learning in two assumptions. On the one hand, it presupposes "that all knowledge comes from the social practice and returns to it"; on the other hand, it argues that knowledge is "produced in the solitude of the subject, not least because such solitude is impossible" (Giusta, 2013, p. 32).

Historically, we have come so far to realize, with the aid of the socio-interactionist conception, that the greater emphasis is in the human (or social) aspects of the environment. Ijuim (2015) explains that both subject and object construct knowledge in a social relationship. Knowledge involves the activity of the individual in interaction with his/her milieu, mediated between the subject and the object. The socio-historical perspective originates from dialectical materialism, proposes to break from traditional, according to this view knowledge is a dialectical relationship in dialogue between the subject and his or her historically constructed milieu. The milieu itself is constructed by the individual, however in order to construct him/herself as a subject, the individual must be mediated by the culture in a relationship with the milieu, therefore it is a pedagogy centered around the activity of individuals interacting with each other. In view of this, the subject is a social being that constructs his/her own individuality.

Considering what has been said, one can notice that the socio-historical perspective is typically adopted in progressive education, as it focuses on teaching and learning, promoting knowledge as a social construction (Ijuim, 2015). In line with what had been discussed before, in order to provide more significant learning, the following section presents the methodology of problematization as a resource to promote autonomy, active learning, and greater dialogical capacity.

Problematizing methodologies to enhance autonomy and dialogue

Problematizing methodologies, in the context of Professional and Technological Education (EPT), provide significant learning and, when applied in a technological context, it provides "the intensive use of intelligence resources, [...] skills to resolve problems and conduct projects in the several segments in the productive sector" (Barbosa; Moura, 2013, p. 52). Such didactics starts with a problem and, as a consequence of it, the teacher guides the students along the learning process, as if in a questioning procedure, searching for a conclusion that will allow for, as a result of the experience provided, some active learning.

Supporting what has been said, according to Braga, Melo and Martins (2020), valuing teamwork for the purpose of resolving problems is paramount in Professional and Technological Education, since it provides the student with the skills he or she will be required in the labor market. To make that happen, the teacher must make use of a pedagogy with dialogical action, in group, where the relationship with the learners draws from a socio-interactionist approach that fosters a fertile exchange of knowledge; and exactly for this reason, it is highly effective in the learning process (Lira, 2016).

Reflection and critical thinking are fundamental to foster the learners´ autonomy, however, it relies on the teacher´s initiative, based on ethics. In this context, information is important, but they must not be "just retained or memorized, a component of reproduction, of maintenance of what already exists, placing learners in the position of spectators of the world" (Berbel, 2011, p. 25). Developing the capacity for critical, extensive, deep thinking involves the teacher, he or she "is the great intermediator of this work, and he or she may either contribute to promote the students´ autonomy or retain the control over the students" (Berbel, 2011, p. 26). The school, in turn, still according to Berbel (2011), must foster human development in order to provide complex levels of thinking and commit to actions that will boost the students´ learning.

The methodology of problematization using the Maguerez Arc, due to its characteristics, is capable of promoting autonomy. That is what will be discussed in the next section.

Methodology of problematization with the Maguerez Arc

The methodology of problematization originates from the principles advocated by Paulo Freire (Berbel, 2014). Vasconcellos (1992), adopting Freire´s style, understand that knowledge is not "transferred" or "deposited" by the other (according to the traditional conception), nor is "invented" by the subject (the spontaneous conception), but he rather argues that knowledge is constructed by the subject in his/her relationship with the others and with the world. This means that the content the teacher presents needs to be worked, reflected and re-worked on by the student in other to actually become his or her knowledge.

For Freire (1987), the dialogical approach sets the student free, refers him or her to a significant learning, and leads them to consolidate their knowledge, in a complementary and continuous manner, through active learning (Vieira; Santos, 2020). This attitude of constructing knowledge requires a change of pedagogical paradigm, that is, instead of giving a finished reasoning, doing thing to/for the student, the teacher is now the mediator of the relationship learner/object of knowledge, helping him or her to construct the reflection by organizing the activities, through interaction and problematization; the concepts do not need to be offered "ready"; concepts can be constructed by the students, allowing them to progress towards autonomy (Vasconcellos, 1992).

Active methodologies are conducive to autonomy since problematizing allows to expand the reflection amidst the group and encourage students to take joint actions. Consequently, it enables to intervene and, as a result, to transform reality. Paulo Freire, for a long time, advocated that education must be liberating-problematizing and avoid what he calls "banking education" (which works as a bank deposit and is merely transmissive of values and knowledge). For this distinguished educator, problematizing involves performing an act of knowledge through thinking with the mediation of the subjects (teacher and learner) which is different from "banking education", marked by contradiction: the teacher on one side and the student on the opposite side. Problematizing education overcomes such contradiction (Freire, 1987).

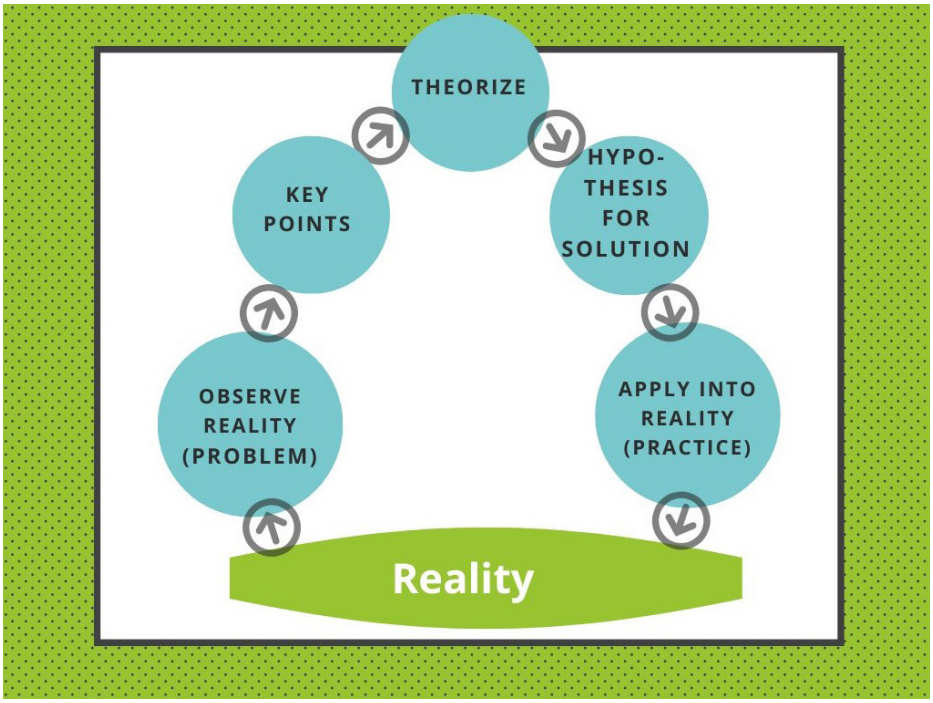
Freire (1997) suggests to allocate the instructions of school knowledge based on the context by problematizing the social, historical, political, and economic conditions.

Such transforming action requires the search for some knowledge that is brought to the students in a dialogical manner, where the subjects of the learning process interact with the social milieu. By problematizing, the teacher must break with the conservative ideal of transmitting information which enhances the dichotomy between theory and practice. That does not mean to abandon the path that has already been taken "by the language and, rather, think about new ways of constructing knowledge, based on a collaborative paradigm that emphasizes some pedagogical work that provides students with the opportunity of resolving problem-situations, working collaboratively" (Silva; Anecleto, 2019, p. 117).

The methodology of problematization with the Maguerez Arc, adapted by Bordenave and Pereira (2004), Figure 1, makes use of problem-situations, starting with reality and going through five stages. Berbel and Sánchez Gamboa (2012) explain that Bordenave, for the conception of this version, was influenced by some concepts of Paulo Freire, Piaget (constructivism) and Vygotsky (socio-interactionism); finally, they recall Bordenave´s own statement when they argue Marx´s dialectical thinking epistemologically substantiates the so-called problematizing education (Berbel; Sánchez Gamboa, 2011; Duarte, 2019).

In this version of the Maguerez Arc, the five steps are: 1) observe reality; 2) identify the key points of the problem; 3) theorize; 4) raise hypotheses for solution; 5) apply into reality, closing the cycle that begins and ends in reality (Berbel, 2014; Duarte, 2019).

Figure 1 – Maguerez Arc, according to Bordenave and Pereira



Source: Berbel (1995, p. 11) modified by Guimarães Filho (2021, p. 2).

When actions of the Arc are implemented, there is a movement that starts with reality and goes back to it "during the teaching process by means of classroom practices drawing from actual problems associated with the contents" (Guimarães Filho; Sinésio, 2021, p. 74).

The teacher must show the students the advantages of the methodology of problematization, make it clear for the learners that what they gain in learning exceeds what they would get with conservative, reproductionist methods of knowledge. Concerning the teacher, he or she "must plan and discuss with colleagues in an exchange of experiences with the most qualified in relation to the new proposal and analyze what content is more suitable to be problematized" (Guimarães Filho; Sinésio, 2021, p. 74).

The next section will introduce the methodological itinerary and will demonstrate how the assumptions of the research-action is to be integrated with the steps of Maguerez Arc.

Theoretical-methodological principles

This article is a break-up of a master´s research, approved by the Ethics Committee, CAAE 54256621.0.0000.0134. It is a qualitative research in which the methodology of the survey is conducted by a collaborative research-action where the participants problematize, analyze and investigate their practice in order to find solutions and produce knowledge. For this reason, the "development of this method does not occur spontaneously. It requires cooperation. That is why the methodology of research-action was chosen as the most appropriate" (Pimenta, 2005, p. 534).

The method of empirical data survey is the research-action, based on the principles of Thiollent (1986), in the five stages: 1st – exploratory (diagnostics) and observation; 2nd – the problems are analyzed looking at an early status going to the final (desired) status; 3rd – hypothesis/seminars/planning; 4th – action plan and implementation; 5th – internal and external disclosure of results. In relation to the research itinerary, the stages of the research-action were integrated with the five steps of the Maguerez Arc, according to Colombo and Berbel (2007): 1st – observe reality to find a problem; 2nd – identify the key points to analyze the decisive factors of the problem; 3rd – theorize; 4th – hypothesis for solution; 5th – apply it into reality.

This break-up presents the first and second phases of the research-action and steps of the Maguerez Arc. Thus, in order to achieve Specific Objective 1 (SO1: analyze the conceptions teachers have about the guidelines set by the state education department of concerning pedagogical practice in professional education) in reference to the study by Thiollent (1986), in phase 1 (exploratory/diagnostic) of the research-action and, according to Colombo and Berbel (2007), stage 1 of the Maguerez Arc (observe reality analytically and critically to find a problem) the following investigation instruments were utilized: questionnaires, consult documents, internal communication, pedagogical guidance in PDFs, in e-mails, and the focus groups.

In phase 2 of the research-action (problem) and stage 1 of the Arc (observe reality analytically and critically to find a problem) to achieve SO2: learn the initial impact of the pandemic on the teachers and they tackled the adversities in the context of continued

training on integrated high-school in attempting to provide active learning, based on the methodologies of problematization; the development took place by choosing a study problem to be investigated, the choice being recorded and justified, by means of focus group with 10 teachers and also the teachers´ assembly. In order to fulfill the first two objectives, in stage 2 of the Arc (key points), the decisive factors of the problem will be analyzed. That is, the several aspects involved in the problem will be observed in order to analyze and itemize the problem, separating what is important from what is superficial (Berbel, 1995).

The research was conducted at the State Center for Professional Education Father João Greiner, a school located in the city of Campo Grande, MS. The study analyzed involves 21 educators (teachers, pedagogical coordinators, supervisors, and school management) who responded the initial Questionnaire. The Textual and Discourse Analysis (TDA) is the tool utilized to analyze the data.

In his opening book on TDA, Roque Moraes (2003) contends in a article that, when using this analytical approach to organize the arguments, the processes starts with a cycle consisting of three moments:

> 1. *Disassembly of texts*: also known as process of **unitarization**, requires materials to examined in detail, breaking them down into fragments in order to reach the constitutive units, the wordings referring to the phenomena being studied.
> 2. *Establish relationships*: this process is called **categorization** and required to construct relationships between the basic units, combining and classifying them in order to understand how these unit elements may be gathered to form sets that are more complex, the categories.
> 3. *Capturing the new emergent*: the intense impregnation in the materials of the analysis unleashed by the two previous stages allows a renewed comprehension of the whole to emerge. The investment in the **communication** of this new comprehension, as well as its critique and validation, make up the last element of the analytical cycle proposed. The **metatext** resulting from this process represent an effort to clarify the comprehension that is presented as the product of a new combination of the elements constructed along the previous steps. (Moraes, 2003, p. 191, our emphasis).

Next, upon introducing and analyzing the discourse of the educators, we will understand how the difficulties in remote instruction had been tackled and which are the major problems and developments when the in-person classes were resumed.

Analysis and discussion of results

Qualitative research requires to determine the meaning and to identify the different segments in order to define the contents that are more relevant in the text that should be analyzed (Huber; Gürtler, 2021). Upon presenting the context of the data collection, it defines the objective of the analysis and starts TDA, following the steps indicated by Moraes (2003).

Confidentiality was guaranteed, as determined by the ethics committee. For this reason, it was necessary to encode data in the following manner: UM: unit of meaning; E: educator; 1 through 21: numbering of individuals; FG: focus group. As is well known, the itinerary of the collaborative research-action goes through the five stages of the Maguerez Arc. This article, however, analyzes the two first steps and three meetings of the focus group.

The meetings of the focus group plus the teachers´ assembly took place on Saturdays which are mainly dedicated to teacher training. The first encounter, held on April 9, 2022, was dedicated to introduce the research-action and the making of the focus group, with the educators interested in it. The meeting was held in person se after a lecture about active methodologies, intended to fulfill the 1st phase of the research-action (exploratory / diagnostic) and the 1st step of the Maguerez Arc (observe reality to find a problem).

A second encounter was held on May 28, 2022, when moving forward to the stage 2 of the research-action (problem) and step 1 of the Arc (observe reality analytically and critically to find a problem). The focus group and the teachers´ assembly were the moments when, first of all, problems were selected, arising from the debates in groups and with notes written down by a volunteer secretary. Next, drawing from the list of problems found, the problem-questions were listed, in two aspects, indicated as follows:

> 1º) *Regarding teachers*: a) Online classes with no audience; b) Discouraging curriculum; c) Difficult for teacher and students to interact in remote classes and also when in-person classes were resumed, adversely affecting the return to the study routine in the classroom;
> 2º) *Regarding students*: a) Difficulty students had in interpreting contents; lack of focus; attention deficit; lack of basis in basic operations; apathy; disorganization and indiscipline; b) Inability to relate theory and practice; c) Lack of a vision of the future. (USGF).

The third meeting, intended to fulfill stage 2 (key points), held on June 25, 2022, began with a debate in the groups while a secretary took notes about the various aspects which cause the problems listed in the previous step. Next, upon reflecting on the problem-issues, a summary ware rewritten. This led to the following question: “At school, where do I feel more stuck by the curriculum? Can education free us as a result of the interactions that provide students with more responsibility and a vision of future, minimizing indiscipline which hinders learning so much?” (USGF).

The next section will analyze the perception of teacher on an individual basis, regarding how their classes went along the remote instruction period and when the in-person classes were resumed.

How teachers have perceived emergency instruction and the return to in-person classes

The TODA process, upon de-constructing the text (unitarization), after reconstructing it (categorization), moves dialectically from the word to the concept and vice-versa. As Galiazzi a Sousa (2020, p. 1167) clarify: “The immersion in the texts and its disorganization looking for insights which organize new meanings lead to abstraction and to the

communication of meaningful horizons". This interpretation, enriched by this process, is added to the movement of authorship the researcher is allowed by the metatext. In addition, the investigator when constructing the analysis may go further than the *a priori* thought and find out a new emergent, drawing from the comprehension of new aspects arising from the phenomenon investigated.

To conduct the analyses, we proceeded with the unitarization of texts recorded in the initial Questionnaire, individually, following the encoding already mentioned. First we obtained the amount of words from each of the 21 educators (unitarization), then we selected phrases and words, next, we listed the relevant themes of each (categorization). Finally, the communication to express the comprehension with the writing of the metatext.

In the first movement of TDA, unitarization, we obtained 1,016 words. In the second movement, categorization, phrases and words were selected to find the most relevant themes. We reached the following result, by order of quotation: 1st - Use of technological resources; 2nd – Students´ learning difficulty; 3rd - Problems of relationship and mental health; 4th – Difficulty in communication/dialogue/interaction; 5th – Educational inequality; 6th – Exaltation of how important the dialogical dimension between teacher and student is; 7th – Discouraged students; 8th – Overcoming the adverse moment through religion.

In the process of reconstruction (communication/metatext), the third movement in TDA, in order to reach a renewed understanding of the phenomenon investigated, paraphrases and direct quotations were utilized with the purpose of critically explaining the success and failure of classes with practices that were dialogical and intended to boost active learning, and also to respond to the following question: During the remote classes, due to the Covid-19 pandemic, how the dialogue between teacher/student and student/teacher happened?

In response to these questions, several explanations were found including:

> During the pandemic, classes were conducted by using Google Classroom, [...] the contact with students was through Google Meet, where there were live classes for clarifications. A positive aspect was this dialogue with students, but they didn´t turn their webcams on, the we could not see their faces, and there was little participation in relation to the number of students enrolled. For example, out of 35 enrolled students in a junior class, no more than five to 10 students participated in each class. (USE-2).
>
> The online platform had limited practical effect; just some students, sometimes. Most of students did not participate which made it difficult to hand in the activities (materials) that would be graded and even the few participating did not manage to do all the exercises because it was difficult for them [as a result of] the method adopted in the pandemic. (USE-17).

Analyzing the texts, one realizes that the use of technology was essential to foster the dialogue during the remote classes, but the technological resource did not ensure the students´ attendance (USE-5; USE-7). This happened, as USE-4 puts it, due to the "unavailability of quality internet for a great deal of students [which] made it difficult to achieve a better interaction with them, as this was the major setback and that is why we were unable to provide classes with more quality". Other educators point out

that the failure of the classes was due "to the fact that, sometimes, students didn´t have internet access or had lost interest. Moreover, I realized that a lot of students were 'digital illiterates' as they didn´t know how to download, modify and send back file" (USE-3). In the face of so many difficulties, the teacher did his or her best to meet the students´ demands, but "classes were awful, because interaction with students took place with less than 10 percent of the class in the beginning and by the end of the school year there were virtually no students as they had become unmotivated [...]" (USE-8).

There were a lot of challenges that recurrent are clearly mentioned by the educators.

> The pedagogical communication channel between teacher and student was done through WhatsApp, Google Classroom mainly. But, we bumped into several critical issues such as the fact that some students did not have equipment and/or internet connection. Those who had it were able to complete the activities easily with the help of the teacher, but those who received printed activities also faced such difficulty. Another difficulty they shared was to manage study time during the school hours. Activities were conducted at different times either day or evening. (USE-9).

Positive aspects, such as the dialogue via technological resources, were mentioned by the technological and financial scarcity added to the lack of interest among students demonstrated serious situations.

> The dialogue was partly positive as the educational practice took place through Google Classroom and WhatsApp. Thus, a portion of the students managed to study and participate in live sessions when questions were answered. But, unfortunately, online classes were a challenge to some students who needed to share one single cell phone with siblings. This situation intensified inequality in education. (USE-6).
>
> Along the period of remote classes, dialogue was really frequent with the use of text applications (WhatsApp) and remote class applications (Meet or Zoom). For those attending the classes and the virtual meetings it was extremely positive and very fruitful, including in relation to the construction of knowledge. But many students were unable to attend and didn´t have the opportunity due to several reasons: lack of interest, lack of motivation, lack of IT facilities or internet connection (including funds in their cell phone lines), lack of self-management. (USE-20).

Once the analysis of the remote instruction period has been completed, now we shall analyze what happened when the in-person classes were resumed using the following questions: How the dialogue between teacher/student and student/teacher developed? Explain critically, reporting the pedagogical experience you had in this context. How do you perceive the students´ learning and how important the dialogical dimension and active methodologies in your teaching?

According to USE-7, at first there was an exchange of information related to how the two years of the pandemic had been experienced. Students showed they were dissatisfied with the remote classes, reported their discontent for having had little social

interaction and revealed feelings of disappointment and distress. Educator USE-8 says he/she had observed mixed feeling, because "despite the desire of getting together, we were restrained by distancing and it made relationships to be 'cold'", and adds that there was great discouragement among the students. For USE-20, "the return was very positive but the dialogue had to be directed and focused as the students were quite 'anxious' for classes and meeting the teachers and classmates".

It became obvious that the quality of communication must be improved, in order to enhance teaching and learning. "Interacting with the student in an in-person context, for sure, makes you capable of planning a class with better learning quality. Personal contact beyond the screen is paramount in the student/teacher relationship" (USE-4). Reading the accounts, one can realize that, as a result of the in-person classes being resumed and in the search for a closer conviviality, how much the pandemic extended the challenges teachers and students have to face, it affected learning and shook the emotions of them both. One realizes that the old fashions of educating do not cope with this generation, especially in this pandemic moment, and that is why they must be replaced (Nóvoa; Alvim, 2021).

> Return to in-person classes happened as expected, students were anxious and leery. In that moment, dialogue to bring calm and explain the facts was of vital importance. Remote instruction left a gap to be filled, a lack of knowledge was noticeable, indicating how important dialogue was to understand the old and the new knowledge. (USE-3).
> Students were no longer excited about the classes, especially in terms of interaction. It seemed that the school environment was something new and pointless, especially in the hybrid fashion (in-person + online). The pandemic broke the teaching-learning link and we had to start from scratch, so that we could gradually set up an ambience suitable for learning. (USE-9).

Educators realized "how much learning has gone backwards during this period, students keep forgetting how to use the basics, such as spelling and punctuation" (USE-14). Many students "came back with a deficit in their understanding. It was necessary to revisit older contents in order to help students pick up the pace" (USE-18). In addition to these learning lags, a major component was

> As everyone returns to the classrooms, it´s been possible to detect that some students have developed depression and anxiety. Therefore, it is vital for the school to be concerned with the mental health of those students and not only with the curricular contents. I believe it is essential if you want learning to happen that classes be taught focusing the students´ wellbeing. To arouse the students´ interest and foster the use of technologies in the classroom with videos, quizzes, production of documentaries [because] they bring motivation and engagement. (USE-6).

A new pedagogical attitude requires providing humanized education, being careful and attentive to the problems that are supposed to be tackled, fostering active learning.

> Moreover, I believe that the dialogical posture and other active methodologies are extremely important in our practice. But I notice that students need to change too from the previous culture of only "being the recipient of contents", [they have to] learn how to research, resolve problems and participate, being active in the construction of their own knowledge. The teacher, too, must be the target of such change and "get used" to active methodologies, taking profit of the technologies available. Without it, this so much needed transformation just will not happen. (USE-20).

Such changes, necessary for teaching, had already been underway, even if modestly, but as a result of the pandemic changes have been speeded up. Teacher formation, together with a collaborative research-action added with the proposal of devising some didactic materials is what had been proposed to investigate along the master´s research. For the time being, we conclude the analysis of this break-up here and, later on, we shall provide a tailpiece.

Closing remarks

The development of this study allowed to analyze the actions implemented by government body on the state level regarding the early impact of the pandemic, which sought to guide all how to proceed with remote instruction. On the part of teachers, pedagogical orientation was provided as well as technological resources such as online classroom, email accounts, and access to several educational applications. As it was a serious situation, it required immediate responses, teacher did not have the opportunity to be trained in the use of such resources, nor had they, as most professionals, the necessary funds.

If it was difficult for the teacher, it was even harder for the students. Financial difficulties and handicaps in digital literacy became obvious. As a result, it caused lags in the students´ learning, worsened by relationship issues and, in the most severe cases, mental health problems. Educational inequality increased and revealed unmotivated learners, with difficult to communicate, subjected to compulsory confinement. In the face of the situation, now that the in-person classes have been resumed, it is not possible to go back to normality, simply because society has changed. Education must change as well. This change is under construction and we propose, mainly in response to the deficiencies presented, some sort of education that is problematizing, reflexive and transformative towards realty, such as discussed in this article.

References

BARBOSA, Eduardo Fernandes; MOURA, Dácio Guimarães de. Metodologias ativas de aprendizagem na educação profissional e tecnológica. **Boletim Técnico do Senac**, Rio de Janeiro, v. 39, n. 2, p. 48-67, 2013. Disponível em: http://www.bts.senac.br/index.php/bts/article/view/349. Acesso em: 14 jun. 2021.

BERBEL, Neusi Aparecida Navas. As metodologias ativas e a promoção da autonomia dos estudantes. **Semina: Ciências Sociais e Humanas**, Londrina, v. 32, n. 1, p. 25-40, jan./jun. 2011.

BERBEL, Neusi Aparecida Navas. Metodologia da problematização: uma alternativa metodológica apropriada para o ensino superior. **Semina: Ciências Sociais e Humanas**, Londrina, v. 16, n. 2, n. Esp., p. 9-19, out. 1995. Disponível em: https://www.uel.br/revistas/uel/index.php/seminasoc/article/view/9458. Acesso em: 15 jul. 2021.

BERBEL, Neusi Aparecida Navas. Metodologia da problematização: respostas de lições extraídas da prática. **Semina: Ciências Sociais e Humanas**, Londrina, v. 35, n. 2, p. 61-76, jul./dez. 2014. Disponível em: https://www.uel.br/revistas/uel/index.php/seminasoc/article/download/18193/16500. Acesso em: 15 jun. 2021.

BERBEL, Neusi Aparecida Navas. SÁNCHEZ GAMBOA, Sílvio Ancízar. A metodologia da problematização com o Arco de Maguerez: uma perspectiva teórica e epistemológica. **Revista Filosofia e Educação**, Campinas, v. 3, n. 2, p. 264-287, 2011. Disponível em: https://periodicos.sbu.unicamp.br/ojs/index.php/rfe/article/view/8635462. Acesso em: 15 jun. 2021.

BORDENAVE, Juan Díaz; PEREIRA, Adair Martins. **Estratégias de ensino-aprendizagem**. 25. ed. Petrópolis: Vozes, 2004.

BRAGA, Francisca das Chagas Alves da Silva; MELO, Georges Cobiniano Sousa; MARTINS, Júlio César Alves. Metodologias ativas na educação profissional e tecnológica: possibilidades para uma aprendizagem significativa. *In*: CONGRESSO NACIONAL DE EDUCAÇÃO, 7., 2020, Campina Grande. **Anais** [...]. Campina Grande: Realize, 2020. Disponível em: https://editorarealize.com.br/artigo/visualizar/68875. Acesso em: 15 jun. 2021.

COLOMBO, Andréa Aparecida; BERBEL, Neusi Aparecida Navas. A metodologia da problematização com o Arco de Maguerez e sua relação com os saberes de professores. **Semina: Ciências Sociais e Humanas**, Londrina, v. 28, n. 2, p. 121-146, jul./dez. 2007. Disponível em: https://www.uel.br/revistas/uel/index.php/seminasoc/article/view/3733/2999. Acesso em: 15 jun. 2021.

DUARTE, Tayna Bento de Souza. **Educação profissional técnica de nível médio na modalidade de educação de jovens e adultos**: uma reflexão sobre a prática pedagógica docente. 2019. 222 f. Dissertação (Mestrado em Educação Profissional e Tecnológica) – Instituto Federal de Educação, Ciência e Tecnologia do Amazonas, Manaus, 2019. Disponível em: http://repositorio.ifam.edu.br/jspui/handle/4321/427. Acesso em 11 jul. 2021.

FREIRE, Paulo. **Educação como prática da liberdade**. Rio de Janeiro: Paz e Terra, 1997.

FREIRE, Paulo. **Pedagogia da autonomia**: saberes necessários à prática educativa. São Paulo: Paz e Terra, 1996.

FREIRE, Paulo. **Pedagogia do oprimido**. 17.ed. Rio de Janeiro: Paz e Terra, 1987.

GALIAZZI, Maria do Carmo; SOUSA, Robson Simplício. O que é isso que se mostra: o fenômeno na análise textual discursiva? **Atos de Pesquisa em Educação (FURB)**, Blumenau, v. 15, n. 4, p. 1167-1184, out./dez. 2020. Disponível em: https://proxy.furb.br/ojs/index.php/atosdepesquisa/article/view/8384. Acesso em: 1 abr. 2022.

GIL, Antonio Carlos. **Como elaborar projetos de pesquisa**. 4. ed. São Paulo. Atlas, 2004.

GIUSTA, Agnela da Silva. Concepções de aprendizagem e práticas pedagógicas. **Educação em Revista**, Belo Horizonte. v. 29, n. 01, p. 17-36, mar. 2013. Disponível em: https://doi.org/10.1590/S0102-46982013000100003. Acesso em: 12 maio 2021.

GUIMARÃES FILHO, Durval Rabelo. Metodologia da problematização com o Arco de Maguerez. **EaD Prof. Durval Filho**, Campo Grande, 2 out. 2021. Disponível em https://sites.google.com/view/eadprofdurvalfilho/metodologia-da-problematiza%C3%A7%C3%A3o-arco-de-maguerez-e-abp?authuser=0. Acesso em: 4 nov. 2021.

GUIMARÃES FILHO, Durval Rabelo; SINÉSIO, Luis Eduardo Moraes. A constituição de saberes docentes na formação de professores: estratégia de aprendizagem no ensino médio técnico integrado. *In*: SEMINÁRIO DE PÓS-GRADUAÇÃO DO IFMS, 1., 2021., Campo Grande. **Anais** [...]: 09 a 12 de novembro de 2021. Campo Grande: IFMS, 2021. p. 60-77. Disponível em: http://sistemas.ifms.edu.br/sempog/public/html/anais/2021/. Acesso em: 14 nov. 2021.

HUBER Günter.; GÜRTLER Leo. **Aquad 8**: el programa para el análisis de datos cualitativos. 1. ed. Tübingen: [*s. n.*], 2021. Disponível em: https://www.aquad.de/C_AQUAD8.html. Acesso em: 12 abr. 2022.

IJUIM, Jorge Kanehide. **Jornal escolar e vivências humanas**: roteiro de viagem. Campo Grande: UFMS, 2005.

LIRA, Bruno Carneiro. **Práticas pedagógicas para o século XXI:** A sociointeração digital e o humanismo. Petrópolis: Vozes, 2016.
LÜDKE, Menga, ANDRÉ, Marli E. D. A. **Pesquisa em educação**: abordagens qualitativas. Rio de Janeiro: E.P.U., 2018.

Secretaria de Estado de Educação. Orientações aos professores na condução de atividades não presenciais para o período de prevenção ao enfrentamento da Covid-19. #**Aprendo em Casa**: Ensino Médio, Campo Grande, maio 2020a. Disponível em: https://drive.google.com/file/d/1xVcKRRTO3uFwgBZKbgRWG50EIWhz1Y3V/view?usp=sharing. Acesso em: 15 jun. 2021.

. Secretaria de Estado de Educação. Orientações para a elaboração de atividade pedagógica complementar. #**Aprendo em Casa**: Atividade Pedagógica Complementar, Campo Grande, mar. 2020b. Disponível em: https://drive.google.com/file/d/13x8OYeLreQJmweCzLtkKNZzUbe1b_zgf/view?usp=sharin. Acesso em 15 jun. 2021.

. Secretaria de Estado de Educação. **REE/MS terá atividades presenciais a partir do dia 02 de agosto**. Campo Grande: SED, 2021. Disponível em: https://www.sed.ms.gov.br/ree-tera-atividades-presenciais-a-partir-do-dia-02-de-agosto/. Acesso em: 01 jul. 2021.

MORAES, Roque. Uma tempestade de luz: a compreensão possibilitada pela análise textual discursiva. **Ciência & Educação**, Bauru, v. 9, n. 2, p. 191-211, 2003. Disponível em: http://dx.doi.org/10.1590/S1516-73132003000200004. Acesso em: 20 abr. 2022.

NÓVOA, António. ALVIM. Yara Cristina. Os professores depois da pandemia. **Educação & Sociedade**, Campinas, v. 42, e249236, 2021. Disponível em: https://doi.org/10.1590/ES.249236. Acesso em 13 jan. 2022.

PIMENTA, Selma Garrido. Pesquisa-ação-crítico-colaborativa: construindo seu significado a partir de experiências com a formação docente. **Educação e Pesquisa**, São Paulo, v. 31, n. 3, p. 521-539, set./dez. 2005. Disponível em: www.scielo.br/pdf/ep/v31n3/a13v31n3.pdf. Acesso em: 18 abr. 2022.

SARAIVA, Karla; TRAVERSINI, Clarice; LOCKMANN, Kamila. A educação em tempos de Covid-19: ensino remoto e exaustão docente. **Práxis Educativa**, Ponta Grossa, v. 15, p. 1-24, 2020.

SILVA, Obdália Santana Ferraz; ANECLETO, Úrsula Cunha. Formação docente na cultura digital: por uma prática pedagógica ética e humanista. p. 113-132. *In*: RODRÍGUEZ JEREZ, Sergio Alejandro (ed.); ESPINOSA ZÁRATE, Zaida *et al*. **Enseñar y educar en la civilización digital**. Bogotá: Universidad Sergio Arboleda; Escuela de Filosofía y Humanidades; Decanatura de Innovación y Desarrollo Digital, 2019. p. 113-132. Disponível em: https://repository.usergioarboleda.edu.co/handle/11232/1471. Acesso em: 23 ago. 2021.

TARDIF, Maurice. **Saberes docentes e formação profissional**. Petrópolis: Vozes, 2005.

THIOLLENT, Michel. **Metodologia da pesquisa-ação**. São Paulo: Cortez; Campinas: Autores Associados, 1986.

VASCONCELLOS, Celso. Santos. Metodologia dialética em sala de aula. **Revista de Educação AEC**, Brasília, DF., v. 21, n. 83, p. 28-55, abr./jun. 1992. Disponível em: http://www.celsovasconcellos.com.br/Textos/MDSA-AEC.pdf. Acesso em: 15 abr. 2021.

VIEIRA, Taísa Diva Gomes Felippe; SANTOS, Mauro Leonardo Salvador Caldeira. Estratégias pedagógicas e uso de metodologias ativas na graduação em Enfermagem em tempos de pandemia do Coronavírus - Covid-19. **Research, Society and Development**, v. 9, n. 11, p. e2759119749, 2020. Disponível em: https://rsdjournal.org/index.php/rsd/article/view/9749. Acesso em: 23 jun. 2021.

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