

# **PROFESSIONAL AND CURRICULUM DEVELOPMENT FOR HIGH SCHOOL TEACHERS USING TEACHING TECHNIQUES, STRUCTURES, AND STRATEGIES TO PROMOTE A STUDENT-CENTERED LEARNING**

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## **Abstract**

Between 1945 and 1989, traditional education was carried out in Romania. Despite knowing the advantages of a student-centered curriculum, nowadays teachers lack the skills to put theory into practice. This study follows a qualitative research design, precisely practical action research. The instruments for data collection include literature, interviews, observation, documents, and the researcher's abilities. The TABA inductive method was used to analyze the data. Trustworthiness is ensured by credibility, dependability, transferability, and confirmability. The results indicated that teachers use some teaching processes spontaneously and are aware of the need to teach in a student-centered style. Following the training, they realize that their skills in implementing student-centered processes have improved. Also, the researcher's skills as a teacher and trainer have improved. Teachers are eager to teach in an interactive, student-centered way, acknowledging that this is the best method for students nowadays. The training helps the school, the students, and the teachers, and helps the researcher develop professionally.

## **Keywords**

Student-centered teaching, action research, teaching processes, professional development, teachers' training, Romania

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## INTRODUCTION

Between 1945 and 1989, education has traditionally been carried out in Romania (Phillips, 2010). On the one hand, traditional education has several advantages, such as compulsory education from grades I to X and the opportunity of free access to education at all levels (Marin, 2018). On the other hand, it has disadvantages, such as the class being teacher-centered, in which students are passive and are seen as empty containers to be filled by the teacher's knowledge (Freire, 1993).

Investment in education was not a priority in the communist period. The proof is the decrease in the national education budget considerably between 1950 and 1989 (Marin, 2018) when communism fell. Due to the communist dominance, fear pervaded the education field, especially at high school levels. This negative influence affected students' critical thinking, and the schools admitted students not based on their academic results but on their political alliances (Phillips, 2010).

In 1990, education in Romania started to change, moving towards a student-centered curriculum (Istrate et al., 2006). The new Minister of Education gave more freedom to higher education and allowed the universities to have autonomy in doing research. Also, the minorities (Hungarians, Romani, etc.) were encouraged to educate their children through a series of laws adopted in the constitution. New textbooks spread in the schools (the editors of the previous ones designed them to praise the communist system and leaders), and the English language, civics, and religion started to have a place in the curriculum (Pierson & Odsliv, 2012). During the mid-1990s, there was a reform in education, following the poor results of Romanian 8th-grade students participating in the Third International Mathematics

and Science Study in 1995 (Beaton, 1996). Nevertheless, not all the teachers embraced the reform, revealing a broad study (Vlăsceanu et al., 2002) published in a two-volume book – *School at the Crossroads: Change and Continuity in Compulsory Education’s Curriculum: Impact Study*. A recommendation of another study is thorough, inquiry-based training for future teachers (Istrate et al., 2006).

The purpose of this study is to train high school teachers to implement teaching processes that promote student-centered learning using The Training Model (Joyce and Showers, 2002). Another one is to develop an action plan for high school teachers on the use of teaching processes that promote the shift from teacher-centered learning to student-centered learning. Also, the author will improve their practice as a researcher, teacher, and trainer.

## **REVIEW OF LITERATURE**

The grades of students tend to be higher when they are happy, and they are happy when they are interested in the subjects they study. In this regard, a student-centered approach offers the possibility of self-expression, self-determination, and better emotional and physical health. All these advantages are known to grow academic achievement (Kaklauskas et al., 2012).

Researchers studied the students’ and teachers’ perceptions of Romania’s student-centered approach at the university level (Miulescu & Tripon, 2017). The target of this study was inquiring about the implementation of student-centered principles stipulated in a program named Bologna process. This program is a convention between the European university teachers to implement a quality teaching system across the countries members of the European Union and ensure the recognition of diplomas abroad by

creating a teaching and administrative code that is evenly understood throughout this area and even internationally (Zahavi & Friedman, 2019). The results of Miulescu and Tripon's study (2017) show that, in reality, these principles are not established yet in Romanian universities. Students feel that they do not have the freedom to express what they think, and few teachers accept academic challenges from students. Another outcome of Miulescu and Tripon's study (2017) is that, even if the teacher has a well-designed course and is willing to apply new teaching methods if the student does not cooperate or lacks the basic knowledge to participate in the course, the results will not be satisfactory.

Demir (2021) studied the problems of student-centered classrooms. He found that some students do not manifest readiness (a set of proper abilities to participate adequately in the class, at their level) and that different factors can hinder communication in the class (students' lack of communication skills, teachers inhibiting the communication flow), the presence of exam anxiety and distraction in class, some students being prejudiced against the course, the lack of reading habits, the competition among students, students relations with their families, lack of interest in a particular course, peer bullying, and students not bringing the necessary equipment. He also found solutions for these problems, mainly based on psychological support for students, staff, administration, and parents to give them tools for overcoming these problems.

The challenges in implementing a student-centered approach in schools from underdeveloped and developing countries are cultural differences, lack of reading habits, number of students in a class, lack of necessary devices and materials, and students' resistance (Sherimon, 2019). Other challenges with a student-centered approach are the resistance to change, the large number of materials needed,

the extra time necessary to prepare the lessons, the necessity to prepare lessons by using interactive methods, the limited amount of time to teach content, lack of support for the teachers in implementing the model, organizational difficulties, the feeling that the teacher's role is not respected, and the many tasks that the students need to do by themselves. Difficulties are many both on the teacher's and on the student's part, but it is worth overcoming them to have the benefits of this approach (Frasineanu & Ilie, 2017). Not all the teachers from Romania embraced the reforms that encouraged the student-centered approach (Vlăsceanu et al., 2002). According to Istrate (2015), it is worth studying if there are differences between students from Eastern cultures, whose education is more teacher-centered, and students from Western cultures, who benefit from a more student-centered education.

There are efforts to put the student at the center of the educational effort, in Romania. Since 1990 (Istrate et al. 2006), there have been reforms (Beaton, 1996) in education (Pierson & Odsliv, 2012). An example is the staff from Politehnica University in Bucharest. They created a survey to let the students express themselves. The researchers realized that this kind of study needs to be done once every 2.3 years because the needs of the students change (Nicolau, 2020).

Borș (2022) discovered that the students from Romania felt the support of their teachers, but this can be correlated to direct instruction. They also felt that the feedback was not very strong, and this is usually correlated to the encouragement the teacher gives for the reading engagement of the students. Students' perception is that Romanian teachers have a hybrid approach, both constructivist and direct, with an emphasis on the direct approach. The author considers that a better approach would be to study the teaching type

of the teachers. Romanian teachers are not used to a student-centered curriculum, although many of them try to implement it (Iacob, 2016). Despite knowing its advantages theoretically (Ciceo, 2017), they lack the skills to put theory into practice (Dole et al., 2016).

## **METHODOLOGY**

### **Objectives**

Despite knowing what a student-centered curriculum should be (Ciceo, 2017), some schools have shifted only in theory, and they deliver it in a teacher-centered way (Dole et al., 2016). Therefore, teachers must be trained in the use of teaching techniques, structures, and strategies that promote student-centered learning. The best option is to use The Training Model to ensure the transfer of training to the classroom over time (Joyce & Showers, 2002).

Therefore the purposes of the study are (a) to train high school teachers to implement teaching techniques, structures, and strategies that promote student-centered learning (b) to use The Training Model (Joyce & Showers, 2002) to ensure that transfer takes place (c) to improve my practice as a researcher, as a teacher, and as a trainer, and finally (d) to develop an action plan for high school teachers on the use of teaching techniques, structures, and strategies that promote the shift from teacher-centered learning to student-centered learning.

According to Sagor and Williams (2017), the research questions are the ones that guide the study. Therefore, the research questions of the study are the following:

1. What are the current practices regarding teaching techniques, structures, and strategies that promote student-centered learning?

2. What does the initial action plan look like when implemented?
3. What are the teachers' perceptions about implementing the action plan?
4. How can the action plan be improved as a result of conducting this study?
5. How can I improve my practice by conducting this study?

## **Methods**

This study follows a qualitative research design. The researcher follows a set of actions through which he aims to understand the perceptions of the participants regarding the events occurring around them (Merriam & Tisdell, 2015). Since the main goal is to understand the perceptions of teachers on the use of teaching techniques, structures, and strategies to promote a student-centered curriculum, a qualitative design best suits this purpose (Creswell & Creswell, 2017). Under the qualitative research umbrella, there are different types of qualitative research (Yin, 2016). This study follows a Practical Action Research since the main purpose is to improve my teaching skills by using teaching techniques, structures, and strategies that promote student-centered learning.

For data collection, the next steps were followed:

- Before the training, I spoke to the teachers to see if they wanted to participate, giving them the informed consent form.
- Then, I gave them an initial written interview to see their current practices in the classroom, what are their perceptions, and what they know right now. This helped me understand their previous knowledge and organize the training to make a

connection to the new information they were about to learn.

- The training consisted of three meetings held by Dr. Ruth Ramirez, a teacher at Montemorelos University and my coordinator for this study, and three meetings held by me. During the training, I gave them the journal form to complete after each session, with questions like: ‘What did you learn’, ‘What did you like the most’, ‘What can be improved’, and ‘Is there any question or comment’. These questions are a part of the *Basic movements of teaching* book (Green & Henriquez-Green, 2008).
- After the training, each teacher designed a lesson plan using the teaching processes learned during the training, with a focus on their subject. I used the observation form when going to their classes and observing how they implemented the new knowledge and skills.
- Also, I collected their lesson plans to see how they structured the teaching for their students.
- After this step, I used a semi-structured interview to see the perceptions of the teachers about the strategies to promote student-centered learning that they learned during the training.

I collected the data and analyzed it simultaneously (Moser & Korstjens, 2018). The data collection ended when it reached the saturation point. For the data analysis, I used the Taba inductive method (Taba, 1962), which contains three steps: (a) concept development, (b) inferring and generalizing, and (c) applying generalizations. As Lincoln and Guba (1985) state, the quality criteria to provide trustworthiness are as follows: credibility, dependability, transferability, and confirmability.

For this study, credibility was ensured by using different data sources (triangulation). Checking the results with the participants and obtaining feedback from them about the correctness of the collected and analyzed data (member check) (Lincoln & Guba, 1985), was another step. Also, trying to interpret the collected data as accurately as possible by spending enough time in the research field, paying attention to details, making careful observations, and taking lengthy enough interviews (thick description) (Tolley et al., 2016) were important.

This study manifested dependability by asking a peer to evaluate the steps of the study and to come up with their interpretation, then comparing the two interpretations (Guest et al., 2012). Another way to ensure dependability is to use triangulation and audit trail by clearly stating the study design, methods, procedures, events during data collection and analysis, and any change that takes place in the process (Tolley et al. 2016).

In this study, transferability was considered by offering a thick description of the context and participants, so that others who want to apply the results realize to what extent they can do this (Merriam & Tisdell, 2015). I ensured confirmability in the study by exercising reflexivity, which is the principle that a researcher's preconceptions should be addressed since the beginning of the study, taking into consideration that they are likely to modify the different aspects of the study (Johnson et al., 2020). Also, I did an audit trail, checking the process of collecting data, analyzing it, and drawing certain conclusions from it (Tolley et al., 2016).

## **Tools**

*Researcher's role.* The researcher is the main instrument and their participation is essential for the study's success

because they are the ones who interact with the participants, gather information, and interpret it (De Clerck et al., 2011). According to Merriam and Tisdell (2015), even if the resources are excellent, everything is in vain if the key person does not know how to use them. My role as the main instrument in this research will be that of a trainer for a group of teachers and the one who will collect and analyze the data.

*Literature review.* Joyner's steps were used. These are the broad scan, focused review, and comprehensive critique. The process of reviewing the literature continued to be completed even after the data was analyzed since I provided theoretical support for each of the themes that emerged (Joyner et al., 2018).

*Interviews.* For this study, semi-structured interviews and open-ended interviews were used (Merriam & Tisdell, 2015).

*Observation.* In this study, I observed the implementation of the information received during training by the teachers, trying not to disturb the natural behavior of the participants.

*Documents.* The documents for this study were students' daily journals, teachers' lesson plans, interview notes, and observation notes.

## **Participants**

The participants for this study are three high school teachers, selected by using a purposive sample technique as suggested by Merriam and Tisdell (2015). The criteria for selecting these teachers are:

1. Teachers who teach at a private Christian high school.
2. Teachers who are willing to participate.

3. Teachers who are open to improving their teaching skills.
4. Teachers who are willing to discover new methods of delivering knowledge and values through the use of teaching techniques, structures, and strategies that promote student-centered learning.
5. Teachers who plan to continue working at the private Christian high school where the study was conducted.

The study took place at the Christian Adventist high school in Romania, where 9th-12th graders attend.

## **RESULTS AND DISCUSSIONS**

Analyzing the data, I found three or four themes that answer each research question. Some of these themes have two or three categories that explain better the content of that specific theme. Quotes from at least two data sources and quotes from the literature will support each theme or category. It is important to mention that the discussions are integrated into the results section.

### **Research question No. 1**

The first research question is: „What are the current practices regarding teaching techniques, structures, and strategies that promote student-centered learning?“. The themes that answer this question are „Teacher-centered practices from the past“, „Tradition permeates the current teaching practices“, and „Isolated practices that challenge the trend“.

**Teacher-centered practices from the past.** In the Written Interviews completed by the participants before the training, they mentioned several teaching practices that their teachers used when they were in school. The overwhelming majority were teacher-centered practices, like „learning was

based on memorization” (WI, person 1, page 1, lines 8-9); „the teachers presented the lessons and we the students listened and took notes” (WI, person 2, page 2, lines 9-10). In my field notes taken after a session of training held by Dr. Ruth, I mentioned that with this training, we have the opportunity to „change the mainly teacher-centered way in which we taught until now, being influenced by the tendency created in the communist times.” (F, me, page 2, lines 28-30). In the final interview, a teacher mentioned that the biggest challenges in teaching in a student-centered way „come from the teacher because when he has reached a certain age, he already has gone through a certain experience, educational process, or professional formation.” (I, person 3, page 6, lines 17-18).

Colceru-Mihul (2016) describes the study of history during communist times, saying that the objectives of the study of history were acquired through memorization procedures: the student needed to learn, assimilate, and reproduce because the meaning of the historical facts was already established. Teacher 3’s remark about the fact that the older a teacher is, the more tempted he will be to teach in a teacher-centered way, is consistent with the results of a study done by Cox (2014). The possible interpretations of this phenomenon, according to the researcher, are that the older teachers were not so exposed to student-centered training (the preferred interpretation), or that as the teachers get older, they change their teaching style to a more teacher-centered one.

**Tradition permeates the current teaching practices.** In the written interviews, the participants answered some questions related to their current teaching style. Although they received from different sources the information that the teachers need to adapt the teaching process to nowadays reality, they tend to teach in a teacher-centered way, as they

were taught when they were students. The participants' words are: „I lead the presentation of the subject and do not delegate to students” (WI, person 3, page 5, line 33); „The classes are mostly theoretical. They do questionnaires, presentations, and written homework.” (WI, person 2, page 7, lines 7-8); Also, there is evidence for this theme in the final interviews: „The tendency, because I grew up like this, is to perpetuate the methods received, but I realized that those are not the most efficient ones” (I, person 1, page 7, lines 18-22); Most of the time, the teachers use the standard, teacher-centered practices, but they realize there is a need to make changes that will help the students more in the learning process, and they are open to understanding how to make this change.

Tobin (2010), speaking about the post-communism period in Poland and Romania, stated that one of the reasons for the poor results in IEA (International Association for the Evaluation of Educational Achievement) of the Romanian students compared to their Polish peers is that the Polish teachers were trained and supported to use student-centered methods and create a positive classroom environment, where the students were able to think, discuss their opinions, and be heard, while the Romanian students were not given power in the classes, and reported a lower classroom climate score. Although both countries came from a communist background, the results were different because they used different approaches to education. Some studies showed that teachers do not always tend to teach the way they were taught but to teach in the way they think is best for their students, the way they would like to have been taught, the way they learned as students (Cox, 2014), and the previous experiences in the classroom (Oleson & Hora, 2014).

**Isolated practices that challenge the trend.** The participants remember that very rarely, their teachers used more interactive and engaging methods to help them learn: „But in Nursing school, yes, I worked on projects sometimes” (WI, person 1, page 1, lines 9-10); „Very rarely as a student, I presented a lesson to my colleagues. The language teacher asked me to prepare a subject I had to present in front of the class” (WI, person 2, page 1, lines 24-26). It is worth mentioning that during the time the participants were in high school, Romania was no longer under communism.

The teachers incorporated some student-centered practices before the training, in their classes:

- student lead discussions: „In my classes, sometimes the students can propose a topic based on which they can discuss, make comments and debate” (WI, person 2, page 5, lines 8-9);

- projects: „The structure of the assessment includes at least one project per semester” (WI, person 3, page 6, line 19);

- collaborative groups: „Sometimes, not very often, I did not get to use a lot this group method. I asked them to discuss in pairs and then to share with the class” (WI, person 1, page 7, lines 11-12);

- practical lessons: „I would involve students in measuring and handling tools and objects for calculating and establishing their properties” (WI, person 3, page 7, lines 35-36).

The participants said in the final interview that they used some of the teaching processes learned in this training, but spontaneously, without a plan, using their intuition: „I did not know so many methods. Maybe I was using some of them, but not so well structured, and without knowing exactly what am I doing, it was something that came naturally, without planning it before, something spontaneously

that came from my previous experience with my children, and with the students” (I, person 3, page 1, lines 13-17). Generally, Romanian teachers have a hybrid approach, both direct and constructivist, but the direct approach is predominant (Borș, 2022).

### **Research question No. 2**

The second research question is „What does the initial action plan look like when implemented?”. Three themes that answer this question emerged from data analysis: „Class arrangements”, „The training process”, and „Unexpected problems”.

**Class arrangements.** This theme describes the necessary preparations that took place before the training started and the preparations before every training meeting. There were some tasks to do before the training started, like „I finished working on the 3 lesson plans and PPTs” (F, me, page 1, line 15); „The three teachers gave back the Informed consent form and the initial written interviews” (F, me, page 1, line 19). There were also many preparations to be done before every training meeting, like „I bought the materials: the tablecloth, the pencils, the colors, the containers, the perfume, and the posters, which I glued on the walls.” (F, me, page 2, lines 1-3); „I came half an hour before the meeting (at 5 PM) to print the materials, start the Zoom meeting, and set up the buckets with markers and the scent.” (F, me, page 5, lines 1-2).

The literature abounds in evidence to confirm the necessity of class organization. Oliver and Reschly (2007) concluded that organizing the classroom efficiently is an important factor for good student education results. As well, the results of a meta-analytical study showed that class organization is a factor that influences the learning outcomes of the students, next to other two factors, instructional and socioemotional support (Wang et al., 2020). Although it

takes time, it is indispensable for the creation of an optimal classroom climate, where the students feel that they are cared for.

**The training process.** This theme tells the story of the actual training, and it comprises three categories, as follows:

- *Teaching processes used.* During the training meetings, many teaching processes were taught: „Dr. Ruth asked me to prepare the structures Either-Or and Bar graphs, as well as the list of teaching processes and Bloom’s taxonomy.” (F, me, page 3, lines 2-3). The teachers mentioned that they learned some teaching processes, mentioning them by their name: „I learned new structures such as Round Robin, Open the floor, Rally table, Ranking, new strategies Bloom’s Taxonomy, Jigsaw, and others.” (J, person 2, page 3, lines 32-33). In the observations for the presentation of the participants’ lesson plan, I noticed they used some teaching processes: „The students were later organized into 4 groups and they were able to interact more due to this new setting.” (O, me for person 3, page 2, lines 4-5).

The role of teaching processes is to help students to respond in an organized way. Structures are content-free processes that promote educational interaction between students, and strategies are more complex processes that are scientifically proven to help produce good outcomes for learners (Green and Henriquez-Green, 2008). The trainees felt engaged in the learning process and they were able to learn the teaching processes modeled and use them confidently in their classrooms.

- *Content taught during training.* Many valuable things were acquired by the participants. They spoke about them in the journals they filled after each training meeting: „(I learned) How to teach deep things in a fun way, playing. How to involve the students in the teaching process.” (J,

person 2, page 3, lines 18-19); „We have practiced and observed what an interactive learning environment is like.” (J, person 3, page 5, line 3); „I’ve discovered that seeds present much interest. Someone who prefers nutritive and tasty foods should consider heirloom seeds as they are far superior from this perspective. However, GMO seeds can be very productive and made to be resilient and survive harsh natural conditions.” (J, person 3, page 4, lines 6-9). Also, in my observations of the participants teaching their lesson plans, I noticed valuable content was delivered: „The third teacher is trying to get the students to understand how to face peer pressure, how to help them stand for good things, and how to build healthy life principles.” (O, me for person 3, page 4, lines 11-12).

Green and Henriquez-Green (2008) discovered that a teacher is effective when they manage to align the objectives of the course, the course content, and the students’ specific needs with a wide pallet of teaching processes. When asked what is most important for planning a course, some university teachers gave answers that were grouped by categories and listed in the order of the apparition frequency. The first listed was the selection of the content that will be taught (Stark, 2000). When establishing the content for this training, Dr. Ruth Ramirez chose modern, research-based teaching principles, and they were very well received because they responded to a great need. For the two training sessions held by me, I chose to teach teaching methods using Biology-related content because I teach Biology to the 10th graders of a school. This content was well received as well, but I noticed it distracted the attention from the teaching processes to the interesting Biology information. This made me understand that the selection of appropriate, goal-related content is an important task and it needs to be done carefully.

- *Collaborative training process.* There was a good collaboration between me and Dr. Ruth to create meaningful learning experiences for the participants, and also to help them design and present their lesson plans. My field notes testify that: „Dr. Ruth started working with one of the teachers and I worked with the other one, but we paid attention to Dr. Ruth also.” (F, me, page 4, lines 31-32); „I gave the second and the first teacher the feedback that Dr. Ruth gave to me, and they worked, they implemented the changes, they did very well and I sent to Dr. Ruth the lesson plans changed.” (F, me, page 7, lines 1-3). The teachers appreciated this help: „I also liked Ms. Ruth and appreciate her willingness to connect with us several times, as a group and later individually.” (J, person 1, page 1, lines 33-34).

Collaborative actions between teachers are the key to an inclusive environment in a school, with large benefits: students' needs are more efficiently and correctly observed and met, the goals of the institution are fulfilled uniformly, and good transformations take place quickly (Lakkala et al., 2021). A good collaboration took place between me and Dr. Ruth to help the teachers get acquainted with the teaching processes and be able to design and present their lesson plans. Because Dr. Ruth was in Mexico and the training took place in Romania, I had to organize the environment, prepare the materials, and help the teachers in a face-to-face setting. Dr. Ruth taught the first three lessons in the training, she helped me with teaching the last two lessons and helped one teacher in developing her lesson plan in an online setting. The collaboration brought good results because there was a synergy of strengths and many weaknesses were covered: I supplied the fact that Dr. Ruth was not physically with us, and she supplied the fact that I was experiencing for the first time the leading of a training.

**Unexpected problems.** During the training meetings, different things did not go as expected. Still, we were not discouraged: „During the meeting, something didn't work with the Internet, and sometimes the connection was interrupted, but in the end, we managed to understand each other and have a meaningful meeting.” (F, me, page 3, lines 40-42); „The third teacher said before that he wants to set up the monitor and buy a Zoom account that is paid and will not interrupt every 40 minutes. Because of this, we started a bit late, about 15 minutes past 6.” (F, me, page 3, lines 37-39).

There were some problems during the lesson plan presentations as well. I noted in my observation form: „The wi-fi did not function in the 9th-grade building, but the third teacher started a hotspot from his phone and the activities that needed internet (the song, a video) could be done.” (O, me for person 3, page 2, lines 6-8); „I felt a little bit anxious in the first part because we started late and the time was short. Then, the third teacher realized this also, and he hurried the lesson a little bit, he even skipped two strategies (Bloom's taxonomy and Jigsaw) to be able to finish. The lesson took 20 minutes more than we expected, so their whole break was taken, but the next teacher was kind, and he allowed a five-minute break for the students from his time.” (O, me for person 3, page 4, lines 33-37).

A math teacher did a study about unexpected problems appearing in his classes. He tried to use every one of those situations to make his students think about a math problem derived from that unexpected problem. He stayed calm, used what he had in hand, and tried to turn the situation into a potential learning experience. He realized that some factors helped him do this: (a) he gave the students a task to do in pairs, groups, or individually, and this gave him some time to think and plan how to develop the learning

experience, trusting in his abilities and the fact he would come up with a significant continuation (b) he was helped by the fact that he read many articles about teaching math and he could extract creative solutions to the unexpected problems from the knowledge acquired, (c) the capacity of being original and creative in that unexpected moment, to create a flow (an engagement estate of the students towards the subject) (Foster, 2015). When unexpected problems appeared in the training, it was helpful that the trainer stayed calm and tried to find an acceptable solution, in the cases when it was possible. It would have been interesting to try to turn every unexpected problem into a learning experience, but we did not do that. In turn, I noticed that every unexpected problem that could have a solution was solved by one of the participants (the Zoom account, the wi-fi, the short time, and others). The third teacher mentioned in the end that his self-confidence was built up because he felt he dealt successfully with many unexpected and new situations.

### **Research question No. 3**

The third question focuses on the participants: „What are the teachers’ perceptions about implementing the action plan?” Four themes answer this question: „Healthy learning environment”, „Challenges the teachers are facing”, „Training usefulness”, and „Positive feelings about the training”.

**Healthy learning environment.** Many reactions written in the journals referred to the perception of being part of a healthy learning environment. Three categories are part of this theme:

- *Pleasant environment.* The participants appreciated the safe space created at these training meetings: „The atmosphere was pleasant, but motivating at the same time.” (J, person 1, page 1, line 31); „I liked that we can use questions

with no wrong answers in our teaching techniques.” (J, person 3, page 2, lines 26-27). During the presentation of the third teacher’s lesson plan, I noticed that „The students were a little bit suspicious and curious in the beginning, but later they were relaxed and they were feeling well in the presence of the third teacher.” (O, me for person 3, page 2, lines 19-21).

Guo (2021) stated in his analysis that a pleasant learning environment is created both by the teachers and students, but the teacher can be the one who sets the tone. Teachers can give students the place to manifest their personality and creativity, teach them to use properly multimedia opportunities, build harmonious relationships with the students, and offer enough time for the students to think and build knowledge (Guo, 2021). These indicators are fulfilled by the teaching approach using techniques, structures, and strategies because students are encouraged to express their opinions through the different structures, and enough time to think is assured by the fact that they are allowed to reflect, and then talk in pairs or groups, and only after these steps they are asked to answer the questions. In this training, the teacher is encouraged to have a cheerful attitude, to be organized, to present the activities with stamina and attention to the students’ feedback at the same time, and to use multimedia devices when needed.

- *Good training organization.* Another category of appreciative perceptions was about how things were organized during the training: „I appreciate the way you prepared for each occasion, with the necessary materials, music, and small dinner menus many times. 😊” (J, person 1, page 1, lines 29-30); „...the classroom and resources were very well planned.” (J, person 3, page 2, lines 29-30). In my field notes, I noted some thoughts that showed that I had the same impression during the first meeting held by Dr.

Ruth: „It was a good meeting because we were getting organized, and we got to know each other and Dr. Ruth better.” (F, me, page 2, lines 19-20).

Comparing classes with high language gains to classes with low language gains, Cutler et al. (2023) found that there are similarities between the two types of classes in classroom management and classroom literacy environment (prints on the walls), but also differences in classroom type of activities and classroom time management. There were also differences in the results registered in the fall (beginning of the year) and spring (end of the year), with the group with high gains in language having a very good start at the beginning of the year regarding the type of activities (less non-instruction activities, less large circle activities, where the teacher was the main speaker). Also, time management during the year (transition time from one activity to another) decreased much more rapidly in the high-gain language group than in the other.

The organization of the class on the first day of school is very important. Dr. Ruth started the training with a meeting that modeled the first day of school and how a class should be organized from the beginning, to eliminate as much as possible transition time, confusion, and misbehavior. The teachers appreciated the organization of the classroom and, although they knew a class must be organized, they could learn how to do this practically.

- *Engaging activities*. The idea of involvement and interactivity was strongly emphasized in the journals the participants filled after the training meetings: „The lesson was interactive.” (J, person 1, page 1, line 6); „I feel relaxed to share ideas and engaged in the learning process.” (J, person 1, page 1, line 19); „It was engaging and fun, and I liked that my imagination was challenged.” (J, person 3, page 2, line 26). At the final interview, the participants brought in

front this idea again: „I think the biggest benefit is that everyone gets involved, at a certain moment, for a certain time, at least once in one learning occasion.” (I, person 3, page 4, lines 22-23).

Students need both academic and social engagement for academic achievement. A classroom where the students have the opportunity to interact, learn from their peers, and learn collaboratively, but also reflect and establish their opinions, is an environment where the teenager’s needs are met and they develop holistically. Classrooms that only emphasize the academic side of development are environments that hinder the full potential of a student (Wang & Hofkens, 2020). The teaching processes used in this research foster a student-centered approach in the classroom because they incorporate collaborative learning, exposure to others’ opinions, reflective activities, and individual choices. All these elements promote students’ social and academic engagement and a holistic development of their capacities.

**Challenges the teachers are facing.** I was glad that the participants felt safe to share the difficulties they were confronted with. These comments were grouped into two categories:

- *Teachers out of their comfort zone.* Especially the first participant mentioned the difficulties faced, but the others expressed this idea too: „I realize I need to be pushed from behind sometimes, to break out of old patterns, to get out of my comfort zone, but this is good for me.” (J, person 1, page 1, lines 37-38); „Hard to say, I was challenged continuously during the class. It would be interesting to know what different results and long-term benefits this teaching approach conveys.” (J, person 3, page 6, lines 25-26). In the interviews, the participants mentioned other challenges they had: „This approach style stresses the teacher more

regarding the organization of the class, and then it helped me pay more attention to details from before, and at the same time, be flexible, because even if the teacher is preparing the lesson in a certain way, the students may answer unexpectedly.” (I, person 3, page 9, lines 1-4). During the observations I did during the lesson presentation of the participants, I noted that „The third teacher is a little nervous, he only taught last year at the school, and it is his first time teaching using teaching processes (actually, he did hold some presentations for the 9th and 10th grade students, especially boys, at the beginning of the year, during Purity weekend).” (O, me for person 3, page 4, lines 22-24).

A meta-analysis of twenty-three studies performed by Silva et al. (2021) revealed that pre-service and novice teachers had different challenges when trained to apply a student-centered model to teach Sports: (a) teacher-related challenges (the need to take time to prepare lessons where students had more responsibility, the preconceived beliefs that the students will not enjoy role-playing, and the reluctance in sharing the decision-making power with students), (b) managerial-related challenges (teachers did not have the skills to manage the activities in the working groups and the disciplinary issues during classes), (c) instruction-related challenges (misunderstanding of the principles of student-centered models), (d) student-related challenges (although students generally had a positive attitude towards student-centered models, some students did not want to obey their peers that had a leading role, they had a competitive attitude, some had difficulties in fulfilling their assigned roles), and (e) external challenges (the permissive school policies, student absenteeism, large number of students in one class, pressure from experienced teachers towards the participant teachers to give up the implementation of student-centered models). In the training held for this research, teachers

reported that the challenges for them would be only related to the need for extra time to prepare lessons with the help of teaching processes, the need to take care of behavioral issues (the students interact more due to the physical environment, and disturbances can be more frequent if the transition time between activities is long), and the lack of experience in teaching.

- *The perceived intensity of novelty*. In the journals and final interviews, the participants talked about the novelty they faced during this training, which can be a challenge because it has to be managed and integrated into the existing knowledge package: „ (I learned about) New structures to use in the classroom, new ways of thinking, and fun and creative methods.” (J, person 1, page 3, lines 4-5); „I think that everything was new, or almost everything. Maybe it is easier to say what was not new, it is the fact that the children need a dynamic approach like this system proposes.” (I, person 3, page 1, lines 12-13).

De Jonge et al. (2018) expected that the direct effects of novelty (perceived creativity) and its indirect effects (productivity, idea diversity, task enjoyment, and not feeling blocked) will be weakened by the need for a structure of individuals, or strengthened by the need for autonomy. The results of the study showed that the hypotheses proved true, with the slight difference that the people in need of autonomy felt blocked when they received non-novel ideas. In conclusion, the effect of perceived novelty and creativity was different depending on the people's psychological needs (autonomy or structure). Apparently, the first teacher in the present research has a higher need for structure compared to the other two, because although all three expressed the novelty feeling accompanied by the training enjoyment, she expressed very often in the journals the challenges she perceived because of the novelty (previous category). The

second and third teachers may have a higher need for autonomy. These labels are not absolute but only speak about a slight tendency towards structure or autonomy.

**Training usefulness.** The third theme that answers the third research question speaks about the practicality of the training, and it is divided into two categories:

- *Training benefits.* The participants, writing in their journals or answering the final interview questions, emphasized some areas where this training benefitted them: „I learned practically through these techniques, structures, and strategies.” (J, person 1, page 1, lines 31-32); „It helped me to develop confidence. It is not necessarily an order of the benefits, but the self-confidence was built.” (I, person 3, page 8, lines 19-20).

If the employees of an institution perceive the benefits of training offered to them by the leadership, this will raise their affective attachment to the institution because they feel that there is a development in many areas of their lives: personal, career, and job. An intermediary factor between the perceived benefits of training and the affective attachment to the institution is the individual readiness for change (a positive attitude towards the changes that take place in the institution) (Mansour et al., 2022). Regarding the present study, although the second and third teachers left the school after one year of being employed, right after the training, other factors contributed to this decision. This training was not offered by the leadership of the institution, only allowed, and it was perceived as beneficial even after they left the school. If the leadership of a school offered more beneficial training, the employees' satisfaction would grow and their turnover would drop.

- *Transferability of the training principles.* Again, from the journals and final interviews, a strong concept was raised – the concept of applying the knowledge from the

training: „The information was very useful, especially because I learned new strategies that I can use in class.” (J, person 2, page 4, lines 45-46); „When each person can express themselves and can bring before the group the day-to-day reality, then there is learning and the things are applied in real life.” (I, person 3, page 5, lines 15-17).

Joyce and Showers (2002) discovered that the training model that combines the presentation of knowledge, modeling of the skills, simulated practice, and peer coaching ensures the highest percentage of knowledge and skills transfer. In this training, the training model proposed by Joyce and Showers was implemented. Although the second and the third teachers left the school after the training, peer coaching was continued by the first teacher occasionally, at the staff meetings, next to the other teachers. She is using now some of the techniques, structures, and strategies in her teaching practice, and she is planning to revise her lesson plans this summer and include as many teaching processes as possible.

**Positive feelings about the training.** There were many positive statements about the training, in the journals, and also in the final interviews: „It was a fun method to learn new things. It was intriguing, a different teaching method.” (J, person 2, page 1, line 40); „I was impressed by the „out of the box” approach to learning that was presented...” (J, person 3, page 2, lines 29-30). In my field notes, I mentioned the positive feelings we had after the training meetings held by Dr. Ruth: „The general impression was that it was very nice, we enjoyed it, it was an awesome meeting and we can’t wait for the next time.” (F, me, page 2, lines 36-37).

Positive perceptions of the employees about different training sessions done for them were shown to be correlated to enhanced work engagement and consequently to task

performance (Fletcher, 2016). The teachers participating in the training were willing to learn and apply the principles of student-centered learning through the use of teaching processes. They started to apply them from the time of the training, and they are willing to implement them in the future, at the places where they work.

#### **Research question No. 4**

The fourth question seeks to discover the aspects that deserve a change for the better at the next training or the next loop of the action research: „How can the action plan be improved as a result of conducting this study?” Two main directions gave the themes that answer this research question: „Better logistics” and „Better methodology”.

**Better logistics.** The things that needed improvement, observed by me and by the participants were: (a) the time of the day: „And the time of the day may be slightly earlier.” (J, person 3, page 6, lines 22-23); (b) the internet connection: „The internet network needs improvements.” (J, person 2, page 5, line 47); (c) other technical things: „I think the sound quality needs improvement.” (J, person 3, page 6, line 22); (d) a larger and quicker implementation of the program: „And I realized that it would be good for this system to be implemented. I think the implementation even needs to be forced a little bit.” (I, person 3, page 9, lines 18-19).

Logistics has to do with positioning the goods in the right place, at the right time (Granville, 2018). The usual challenges in online education are: the staff lacks training in the use of technology, the staff and students do not have media devices to connect, the students are not engaged, and there are internet connectivity problems (Farooq et al., 2020). Some things deserved improvement in the present training, like the internet connection (the place available to hold the meetings did not have a good wi-fi coverage),

sound quality problems (the device had a problem with the sound), but also the time to hold the training (it was late at the first meeting), and the fact that this training was held for only three teachers and for a little time. Some of the problems were improved the meeting after they first appeared, like the sound quality and the time of the meetings.

**Better methodology.** Some decisions were not taken correctly before or during the meeting. These decisions were related to the instruments or participants, forming two categories:

- *Better prepared instruments.* I noted in my field notes some things that could have been done better: „I should have held the initial written interview orally, to be able to ask for some clarifications.” (F, me, page 10, lines 24-25); „I should have adapted the questions from the final interview to verify the themes already existent from the analyzed Journals.” (F, me, page 10, lines 26-27).

A good qualitative interview protocol begins by aligning the interview questions with the research questions, and then by constructing inquiry-based, open-ended questions to ensure rich data. The other two important steps are to obtain feedback for the interview and to pilot the interview. After each of these two steps, changes may be made to improve the interview and to ensure the success of the research (Castillo-Montoya, 2016). Reflecting on the process of interview protocol creation, some things appeared that needed improvement: the content and the form of the initial written interview, and the correlation of the final interview questions with the emergent themes from the analyzed journals.

- *A more thoughtful selection of participants.* The first and third teachers, in their journals, thought that although it was good that they were exposed to the student-centered training, it would have been better for preservice or initial

teachers to be exposed to this kind of training, at the beginning of their teaching journey: „I think that if this program were multiplied, those who want to dedicate their time to being teachers should be exposed to it early in their formation so that they will not need to fight against some well-formed tendencies.” (I, person 3, page 6, lines 24-25 – page 7, line 1); The third teacher also wrote in this journal that it would be good to train the whole school at once: „I think a teacher who wants to do this in a school will be disadvantaged because the other teachers are not practicing the same methods, and it will be complicated for him to change the perception of the children regarding the class.” (I, person 3, page 7, lines 2-4).

Merriam and Tisdell (2015) state that selecting the participants of a study needs to be dependent on the research problem and that the researcher needs to create a list of criteria for the inclusion of the participants. A typical purposeful sampling technique was used in this research. I realized, after analyzing the Initial Written Interviews, that it would have been good to include in the research teachers who studied at Romanian Pedagogy Universities because they could give me insights into how they were taught and how this influenced them. The participants suggested that it would be good to have more pre-service or initial teachers as participants, because it would have been easier for them to apply the teaching processes, not having any teacher-centered experience in their practice. Another suggestion was that all teachers from a school need to be trained at the same time, or at close time intervals, for the students to have a uniform experience and eliminate the possible confusion.

#### **Research question No. 5**

The last research question enables a process of self-reflection: „How can I improve my practice by conducting

this study?”. I found three themes to answer this question: „Practicing the Student-centered activities in my class”, „Teaching others by organizing training sessions”, and „Doing research in this field area”.

**Practicing the Student-centered activities in my class.** „After this action research, when I prepare my lesson plans to teach Biology or Anatomy, I always include some group activities and some teaching processes. I realized that this process helped me transform my teacher-centered teaching style into a more student-centered one.” (F, me, page 11, lines 6-9). I realized that I improved considerably my teaching practice since I started to implement the teaching processes that were modeled during the master’s program at Montemorelos University. The palette of teaching processes was enriched after reading the book *Basic moves of teaching* by Dr. Green and Dr. Henriquez-Green (2008). This fact was noticed by the first and the third teachers: „Thank you for including me. Nothing is done without an effort. And it encourages me to see you growing and I realize you were helped by the things you have learned.” (I, person 1, page 8, lines 7-9).

Joyce and Showers’s training model for staff development (2002) contains four stages – knowledge, modeling, practice, and peer coaching. They discovered that, if training has all these four components, it has the highest probability of enabling the transfer of skills and knowledge. The transfer took place in my case, and I started to implement these teaching processes more confidently in my classes. I went through the reading of the techniques, structures, and strategies, and then Dr. Ruth and other teachers from Montemorelos or America modeled them in front of me. I had to prepare lesson plans using teaching processes for my biology classes, and then Dr. Ruth gave me feedback and helped me improve my practice. From time to time, I get to

speak to the teachers who work at the school where I work, and we share what went well and what can be improved in the classes.

**Teaching others by organizing training sessions.** The process of preparing and delivering the training helped me to see how it is to train teachers. „I read about these teaching processes in the book *Basic moves of teaching*, written by Dr. William and Rita Green, then I prepared three lesson plans to include the majority of them. Dr. Ruth presented three lesson plans modeling many teaching processes (me and the three teachers were the students), then I presented my lesson plans to the teachers, assisted by Dr. Ruth. Then, I helped the teachers design their lesson plans, and I observed them teaching.” (F, me, page 11, lines 1-6). I taught some teaching processes before, at the staff meetings at my school, but now it was a more complex training than just teaching for one hour, without follow-up. I realize that it is a small and short version of what this training could have been, but I feel that I climbed the first step of the ladder. Seeing the good results of this short training, I am encouraged. In my Field Notes, I mentioned that „I had a big joy when a teacher who participated in the training told me that she is starting voluntarily to include in her lesson plans some teaching processes to make her classes more interactive and engaging. She is enthusiastic because she receives good feedback from the students, and she feels she grew up as a teacher and this training was a real help.” (F, me, page 11, lines 10-13).

Motivation can improve significantly a trainer’s performance. Motivation can be related to the positive outcomes that are seen or expected: their work will be recognized, the trainees will be able to implement what they were taught, and their work will be well done, leading to personal satisfaction (Noor et al., 2020). I was motivated to do this

training because I wanted to improve my practice and offer opportunities for growth to my colleagues.

**Doing research in this field area.** This experience was my first encounter with qualitative research and of course, I gained substantial knowledge and skills, although this process represents only the first loop of the training. I am thankful for the possibility of developing as a researcher as well. In my reflections from the field notes, I noted some aspects relevant to this theme: „Also, by following step by step the indications of my coordinators, I connected the theoretical knowledge about qualitative research with practical, hands-on knowledge. I understood better the reasons behind every step and how the steps are related one to another. I grew, during this training, in being a better researcher.” (F, me, page 11, lines 14-17).

One of the effective methods to grow as a qualitative researcher and make sure the involvement in the research is not biased is to work with people who do not belong to the research area, do not know its specific language, do not work with the same rules, and receive feedback from them. In this way, the researcher will have available a new perspective on their study, ideas on how to improve their work, and skills in cooperative learning (Staley and Barron, 2019). I did not collaborate with someone outside this field area, but I did collaborate with my peers, the teachers who work in the same school, and even in other schools. Still, it is not a systematic collaboration, but rather an occasional one. It is good to collaborate more purposefully with other people because we grow in many areas through social interactions (Vygotsky, 2007).

## CONCLUSIONS

During the communist period, education in Romania was almost exclusively teacher-centered. The students were not given decision power, and the teacher was the main authority in the classroom. Many students felt inhibited from thinking and sharing their opinions.

After the fall of communism, there were education reforms, training sessions, and programs that were meant to direct the education system to a student-centered approach. Because the training was done superficially and did not follow a training model to ensure the transfer of knowledge and skills, the changes were done mostly theoretically, in most of the educational institutions, and the educational approach was still teacher-centered, with isolated practices that challenged the trend. Although the teachers spoke about the influence of how they were taught when they were students, some studies (Cox, 2014; Oleson and Hora, 2014) revealed that the teachers teach mostly in the way they would like to be taught, or in the way that seems most appropriate to them. These studies were referring to how the teachers were taught in the Pedagogy University, not the way they were taught when they were students. Still, they are important to consider when one wants to explain why the teachers were implementing spontaneously some student-centered practices in their teaching.

The following conclusions emerge from the results and discussion:

1. The teachers knew some teaching processes from before the training, but their application was done spontaneously.
2. The class arrangements, the content chosen, and the collaboration between trainers were important for the success of the training.

3. The training model for professional development (Joyce & Showers, 2002) was efficient in transferring information, skills, and enthusiasm because they were presented and modeled by the trainers, and also practiced and cultivated by the trainees through peer coaching.
4. After the training, the participants started to successfully implement the teaching techniques, structures, and strategies in their classes, in a more organized and planned way.
5. After analyzing the implications of the training, the participants were confident and grateful for the opportunity. They were glad to be involved by participating as active students in the training and also in solving different unexpected problems that appeared. They realized that the training they got was valuable, which increased their intention to keep implementing the new teaching skills.
6. Moving out of the comfort zone and being faced with intense and novel teaching experiences, as well as receiving support is essential for the personal and professional growth of a teacher.

### **Theoretical and practical implications**

1. When teaching, teachers are influenced by the way they were taught when they were students.
2. Teachers can improve their teaching practice by training based on the Joyce and Showers training model to teach student-centered teaching methods. As well, the pre-service teachers should be instructed in student-centered teaching methods using the Joyce and Showers training model.
3. Teachers taught in a teacher-centered style have challenges when trained in student-centered teaching methods, because it takes them out of their comfort zone.

- Still, if the trainer sets a positive environment and they feel helped to overcome the challenges, they are more adherent in implementing the new methods.
4. Initial teachers who did not experience this type of instruction in the university should be the first targeted in participating in this kind of training because they do not have so many well-formed teaching habits and it is easier for them to make changes in comparison to the ones who have more years of teaching-centered teaching experience.
  5. The following improvements should be taken into consideration when providing teaching training on student-centered strategies: (a) the research instruments should be carefully thought out and adapted to the research question and the emergent themes from the ongoing analysis, (b) the selection of appropriate content for the training, (c) the educational technology should be carefully prepared before the training, and (d) the time of the day should be convenient for every participant.

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