Effects of Critical Thinking Implementation on Enhancing of Teaching Quality

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Abstract

Critical thinking is a training program for teachers in order to improve teaching and the educational approach to students. The aim of this research is to address the implementation of this training program from the viewpoint of students and teachers. In this paper, we investigated the effects of the application of critical thinking in raising the quality of teaching in 9-year schools in Kosovo. But this paper initially treats from the theoretical aspect, which as a training program is based on the constructive and progressive approach. This philosophy of education sees the student as a subject engaged in the acquisition of knowledge and positive school experiences. While for a more complete illumination of the research, we received the opinions of 517 students from schools where the philosophy of critical thinking is applied and from schools that still work according to traditional educational practices. Here we compare the opinions of students about the quality of teaching of teachers who have been trained with critical thinking techniques and strategies and of other students whose teachers have not yet received the aforementioned professional training. Regarding the effects of the application of critical thinking in improving teaching, through questionnaires we also received the opinions of 234 teachers trained in critical thinking and teachers who have not yet been trained in the approach and teaching strategies according to critical thinking. The use of critical thinking techniques and strategies has raised the teaching quality and mobilizes students in the active acquisition of knowledge, creating a positivist spirit and a stimulating learning environment. Also, students engage with awareness and full will towards achieving their successes. Through this new philosophical approach, educators have also contributed to improving the quality of students’ learning and raising their learning results. At the same time, playing the role of instructor in the classroom, they initiate learning debates on environmental and social topics. This approach prepares students for lifelong learning by creating work habits and creative skills found for work and being active in their social environments.

Keywords: critical thinking, contemporary teaching, active learning, learning outcomes

1. Introduction

The teaching so far in our schools was traditional and with low learning results. This outdated practice has been followed by a series of formalities which have considered the student as an objective factor and forced to learn the learning content by heart without analyzing and comparing
concrete learning topics. Despite this, the application of the philosophical approach of critical thinking as an alternative to the reformation of this teaching practice has brought innovation and professional freshness and visible improvements. This new opportunity in our educational institutions has managed to make the school attractive for students and has mobilized the students for an active and voluntary acquisition of learning materials.

The purpose of our paper is to determine the effects of the application of critical thinking that has in raising the quality of teaching in our schools. While the specific objectives of this research are: (1) The contemporary approach of critical thinking schools in teaching should be compared with the traditional approach of schools which, for various reasons, have not yet started reforming their teaching practices; (2) Through this research, we aim to emphasize the importance of applying critical thinking throughout our educational system as a successful alternative for reforming our schools.

The research questions of our research are as follows:

a) Do teaching strategies and techniques of critical thinking help to improve the quality of teaching in schools?

b) What are some of the positive impacts of this philosophical approach in improving the quality of teaching?

Self-directed learning involves the processes of planning, learning, applying strategies to learn and selecting appropriate learning resources (Deur, 2021). In this direction, various improvements are being made which are also giving high quality educational results. Through the organization of different learning modalities in the classroom and school laboratories, analyzing data and debating different aspects of the learning topic, this teaching promotes the active acquisition of knowledge and raises the quality of students' learning. This teaching confronts students with learning problems, developing in them positive learning expressions and personalities with critical and creative qualities. These qualities of contemporary teaching which have improved this process and daily work of teachers will be the object of analysis and treatment in this paper. We will present these improvements in the quality of teaching in this paper from the perspectives of teachers as implementers of positive changes and from the perspectives of students as beneficiaries of educational services. The evaluation of teaching staff teaching performance is then reduced to satisfaction surveys constructed around students' judgments of what they conceptualize as good and appropriate (Deneen & Prosser, 2021).

Critical thinking is an important aspect of the development of human thinking. Along with problematic and creative thinking, it is considered a high level of mental development and a necessary need for its implementation in the school curriculum. Whereas, the term Critical Thinking itself has already been updated in the dictionary of literature and academic debates in the field of education. As synonyms of this notion, we also find the terms: judgment, evaluation, reasoning, etc. Reasoning is the ability closely related to human achievement (Butterworth & Thwaites, 2013). In the literature, we find "Critical Thinking" also defined as well-balanced and logically reasoned thinking. The prominent American author and scientist Robert Ennis on Critical Thinking gives this definition: “Critical thinking is reasonable, reflective thinking, focused on deciding what to believe or do” (Fisher, 2011, p.11). Whereas, as a training program and learning project, Critical Thinking is a new mindset orientation in education, which approaches the education and teaching of students from a constructive and progressive perspective. Critically, children's constructive engagement enables children to envision alternatives and to believe they can be agents of transformative change (Trott, 2019). This curriculum considers the student as an active subject contributing to education, teaching and his general formation. For the realization of this orientation in education, education scientists have elaborated active and contemporary teaching strategies and techniques. These democratic teaching methods and techniques encourage the interactive activity of students, active questioning and participation in discussions on concrete topics that are elaborated during the lesson. This type of learning approach allows students to ask questions, take responsibility for themselves, and create teams where students work together (Lapareur & Grangeat, 2018).

Educational reform is the normal and permanent phenomenon of improvement and
modernization of various educational-teaching aspects of schools, to follow the socio-economic and technical-scientific developments of the time. In order to be the current education system and in harmony with the development objectives of the contemporary society, it must constantly improve the national curricula, textbooks and teaching technology and other aspects of the educational practice. About reform and change in education, Michael Fullan in his book Forces of Change, writes: “Productive educational change at its core is not the ability to implement the latest policy, but rather, the ability to survive the sudden turns of change planned and unplanned as you progress and develop” (Fullan, 2010). Economic and technological developments present the need for adaptation and qualitative improvements of teaching and learning in our schools. In this sense, educational reform is never closed and finished. In the didactic sense of the word, teaching based on the teacher’s dominance during the lesson through lecturing and other forms of presence and dominance is considered traditional. This teaching is very static, superficial and loaded with data that does not develop the creativity, initiative and innate potential of children. According to this teaching practice, the students stay in the shadow of the teacher as passive listeners, connected to the school desks and facing the teacher, who is also the main protagonist of the lesson. According to this logic, students learn without cooperating among themselves, obeying the teacher’s word and forced to learn facts mechanically, from which they have neither educational benefit nor development of individual interests and skills. Students who experience stress may have negative perceptions of school, where they may not experience satisfaction and their well-being may be impaired. At the same time, stressed students may put school and learning as the last priority (Satici, 2020). The rapid socio-economic developments and numerous technological discoveries in the period after World War II were followed by various initiatives and innovations in the educational field. The achievements of psycho-pedagogical disciplines and the need for the education of generations with new original and creative qualities took on the dimensions of world trends for reforming educational systems. These innovations and efforts to modernize strategies, approaches and teaching techniques constitute the entirety of the elements of contemporary teaching.

2. Literature Review

We above mentioned that in order to be contemporary teaching, other teaching factors must also be built from the contemporary approach. Among these factors, the teacher is the subjective factor who gives life and soul to this very complex social process. With the reform of teaching, the position and role of the teacher in the classroom has changed, too. He/She is no longer as the center of attention and the primary source of the rays of knowledge. Currently, in teaching and learning topic to explaining and interpreting the subject, he/she is also an instructor, and leader of students in active group of learning topics. Now, as moderator and initiator of learning activities and projects, we find him/her mixed with student groups, conducting learning tests and experiments, and leading group presentations and discussion of learning topics. “It is important to add that teachers, in classrooms with the student in the center, do not lose their role for a moment; it is only modified, supplemented and refined to the best of the children’s effective learning process” (Gjelaj, 2011, p.78). The Critical Thinking teacher has a contemporary approach to students and their education. He/she now shares the responsibility for student progress in lessons with his students and their families.

Teachers and teaching practices play a pivotal role in students’ experiences and outcomes at school (Mazenod et al., 2019). The sharing of decisions about the learning objectives of methodical teaching procedures involves not only the learner’s needs, desires, interests, motivations, opportunities, but also the responsibilities of all partners involved in learning (Zajazi, 2003). In teaching, the teacher follows the method of the master who teaches the prentice, the path of the instructor, the initiator of the tasks and learning topics. He/she becomes the student's companion, in learning content and learning experiences. A trained teacher in teaching Critical Thinking through teaching techniques and strategies develops students’ critical and creative thinking. By developing these students’ abilities he/she helps actively acquiring knowledge and learning experiences, which become more easily the intellectual property useful for their later life. By launching themes and learning tasks as problems that await the
“mind and hand of the student” to provide solution and answers, the teacher develops in the students the motivation, interest, and sustainability to succeed (Moore & Parker, 2012).

This is what teacher achieves, exactly by analyzing the data and assessing their origin and truthfulness. This way develops students’ common sense and ability to simultaneously compare different opinions and opinions within the current circumstances and places. When the topic is more theoretical, the Critical Thinking teacher elaborates it with the students through questions, giving opinions in discussions and in class debates. Usually, he/she first forewarns students about the topic which is going to be elaborated. Then, through teaching techniques, encourages students’ interests prepares them for the concrete lesson through telling their own knowledge and experiences. On going explains the unit, interacting with students and keeping them engaged in the active and logical acquisition of new knowledge. Through individual and group assignments, the teacher guides and directs the students’ learning activity toward meeting the learning objectives previously planned. Finally, through a natural flow of learning hour instruction leads students to the conclusion and reflection on what has been learned. Even at this stage of the class he/she closes the assigned class through open-ended questions that require analysis, creative answers and independent thinking. However, whenever a teacher puts students to find, retrieve, discover or rediscover some elements of his or her exhibition (though it may be time-wasting), he or she teaches them the habit of being dissatisfied with what they know and the demand to deepen their knowledge (Mialaret, 1995; Latorre-Cosculluela et al., 2021).

When teaching units are of a practical and environmental nature, the teacher takes students out of the classroom, asking them to measure, construct various materials and data. Then, they process, analyze, and present their field data under the guidance of the teacher they process their research as results. Critical thinking as a strategy and project for education reform requires the teacher to create an appropriate learning environment. Only if the students feels at home he or she can mobilize and make the most of his or her learning opportunities. The teacher of the training program we are analyzing encourages students to ask as many questions as possible to each other and to their teacher. He/she also encourages and supports individual and group students initiatives to try original solutions and approaches. These initiatives to find and prove intangible avenues of recognition are especially important for students’ intellectual development and for solving problematic multi-choice situations.

A Critical Thinking – trained teacher gives considerable importance and space to the presentation of thoughts and opinions through various writings. He /she also provides students with instructions and examples on how to write creative question and answers, assessment reports, and various argumentative essays. Through these writings students from habits and prepare for an important segment of their academic life. For Critical Thinking teachers, students’ ability to write critical and creative thinking is just as important as speaking skills in various discussions and debates. Therefore, in their teaching, they cultivate the ability and culture of communication between students through discussion and various forms of writing. When students are determined to share thoughts and ideas, they are making a decision about the learning community, their classroom, their school (KEC, 2004). The teacher of this training program follows a contemporary approach in assessing students’ knowledge. In this process he is cooperative and objective with the students. The evaluation and qualification of students for the acquired knowledge is also used as a means and opportunity to inform and support them in the way of their education.

3. Methodology

For conducting scientific data, has been used the quantitative method. By using standardized tests, were conducted the thoughts of students and teachers from school environments that implement contemporary teaching approaches and strategies. With the same tests, have been also surveyed students and teachers who work with traditional teaching. The opinions obtained from the questionnaires are presented in the paper as research findings through various tables.

The research was realised in 9th graders in primary schools of the Gjakova Region. There was
conducted the survey with teachers in 21 schools, where through questionnaires we received the opinions of 234 teachers divided into two groups. In the first group were surveyed 121 teachers trained according to the methodology of critical thinking and in the second group we surveyed 113 teachers who still work according to traditional teaching strategies. We also surveyed 517 students from urban and rural school environments divided into two groups. In the first group, were surveyed 255 students from schools where the contemporary teaching methodology is applied, while in the second group, 262 students from schools with traditional teaching.

4. Results

The qualitative implementation of Critical Thinking training program in our schools has brought about positive changes in general pedagogical practice. These improvements are significant and measurable in all aspects of student life and school mission fulfillment. The rumors that the modern teaching techniques and teaching strategies utilized by Critical Thinking have not proved effective are wrong and unscientific. The eventual ineffectiveness of this teaching methodology in concrete schools should be addressed by the poor quality of implementation and other factors within and outside the school that impede the implementation of pedagogical innovations. For some aspects of the impact of this methodology on improving teaching in elementary schools where the research was conducted, the research has obtained the opinions of students and teachers. Below are presented these findings for analysis and comparison in common tables for both school environments. At this point, in the treatment we received students’ opinions on how much their teachers engaged them in learning tests, activities and experiments. Their opinions, which we present as research findings in Table 1.

Table 1: Teachers engage us in various teaching experiments and practice

<table>
<thead>
<tr>
<th>Categories</th>
<th>Students of CT School</th>
<th>Students of traditional school</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Never</td>
<td>8</td>
<td>(3.1%)</td>
<td>92</td>
</tr>
<tr>
<td>Rarely</td>
<td>84</td>
<td>(32.9%)</td>
<td>73</td>
</tr>
<tr>
<td>Often</td>
<td>98</td>
<td>(38.4%)</td>
<td>52</td>
</tr>
<tr>
<td>Always</td>
<td>64</td>
<td>(25.1%)</td>
<td>39</td>
</tr>
<tr>
<td>No answer</td>
<td>1</td>
<td>(0.4%)</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>255</td>
<td>(100%)</td>
<td>262</td>
</tr>
</tbody>
</table>

The percentages of opinions are of students from schools applying Critical Thinking and those traditional schools. These findings in our opinion are faithful representatives of the education reality in these two different school environments. Schools of Critical Thinking engage students in independent work and active learning have education postulate and philosophy which is based on progressive and constructive theory of education, which is why the percentage of students in these schools who declare that their teachers never engage them in practice and teaching experiments. Whereas, as shown in the affirmative claim and favor of the above statement, the percentage of these students declaring is relatively higher than their peers from traditional schools. We also consider the opinions of students from the most traditional and delayed schools on the path of reform to be true and consistent with the educational agenda. They show that students in these schools are less engaged in teaching activities and interactive learning.

Proper disengagement of students in teaching activities indicate that there is no suitable pedagogical environment for developing their interests and creativity in those schools and, consequently, in those school environments students are not sufficiently the focus of attention in their classrooms. These schools unfortunately still apply formal teaching and mechanical learning and other traditional practices that bind the student to the desk and to the teacher’s word. Another important aspect of teaching is encouraging the students in learning discussions and debates that arise as a result of active and interactive learning (Table 2).
Table 2: We discuss and debate with our teacher about teaching topic

<table>
<thead>
<tr>
<th>Categories</th>
<th>Students of CT School</th>
<th>Students of traditional school</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N  %</td>
<td>N  %</td>
<td>N  %</td>
</tr>
<tr>
<td>Never</td>
<td>7 (2.7%)</td>
<td>13 (5.0%)</td>
<td>20 (3.9%)</td>
</tr>
<tr>
<td>Rarely</td>
<td>18 (7.1%)</td>
<td>34 (13.0%)</td>
<td>52 (10.1%)</td>
</tr>
<tr>
<td>Often</td>
<td>70 (27.5%)</td>
<td>63 (24.0%)</td>
<td>133 (25.7%)</td>
</tr>
<tr>
<td>Always</td>
<td>159 (62.4%)</td>
<td>152 (58.0%)</td>
<td>311 (60.2%)</td>
</tr>
<tr>
<td>No answer</td>
<td>1 (0.4%)</td>
<td>0 (0.0%)</td>
<td>1 (0.2%)</td>
</tr>
<tr>
<td>Total</td>
<td>255 (100%)</td>
<td>262 (100%)</td>
<td>517 (100%)</td>
</tr>
</tbody>
</table>

As it can be seen, the percentages of students’ options are clearly different between schools. The above table provides four options for which students must declare. Of these, two of the options are negative (never, rarely) and the other two are positive (often, always). Critical Thinking school students for the two negative options of this assertion have a lower percentage of declaring. Whereas, for the two positive assertion options they have higher percentages. This shows that, in school where contemporary teaching techniques and strategies are applied, students are freer to ask and explain many aspects of the teaching topic. This percentage of stating these students is an opportunity and space that effective and contemporary teaching provides them with logical, active and argumentative learning. Despite these views of students from Critical Thinking schools, traditional school students have other opinions. They have higher percentages for the two negative options and lower percentages for the two positive options they have compared to students in Critical Thinking schools.

Research findings from more traditional and more conservative schools prove that students have the least opportunity to question and give their opinion on aspects of a particular teaching topic. The differences are clear and emphasized. They testify the differences in pedagogical practice in these two school environments. The percentages are overall at the regional level. What if we compared a quality school of Critical Thinking with a traditional school the differences in students’ views would certainly have been more emphasized. However, despite these general findings that for us are real representatives of educational practice, prove the differences of teaching practice. They also demonstrate the positive effects of implementing the Critical Thinking training program in our schools as a viable alternative (with our economic and financial circumstances) to reforming our educational system.

For similar aspects of the impact of Critical Thinking training program on the improvement of teaching we also received the opinions of teachers who implement educational innovations in learning. Through our questionnaires we asked them to give their opinions on how often they organize discussions where students talk mostly. Opinions of teachers from these two school environments, expressed as a percentage (Table 3).

Table 3: Guide the discussions, where students talk mostly

<table>
<thead>
<tr>
<th>Categories</th>
<th>Teacher of Critical Thinking School</th>
<th>Teacher of Traditional School</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N  %</td>
<td>N  %</td>
<td>N  %</td>
</tr>
<tr>
<td>Less than once a month</td>
<td>3 (2.5%)</td>
<td>3 (2.7%)</td>
<td>6 (2.6%)</td>
</tr>
<tr>
<td>At least once a month</td>
<td>9 (7.4%)</td>
<td>10 (8.8%)</td>
<td>19 (8.1%)</td>
</tr>
<tr>
<td>At least once a week</td>
<td>42 (34.7%)</td>
<td>29 (25.7%)</td>
<td>71 (30.3%)</td>
</tr>
<tr>
<td>At least once during the lesson</td>
<td>62 (51.2%)</td>
<td>58 (51.3%)</td>
<td>120 (51.3%)</td>
</tr>
<tr>
<td>No answer</td>
<td>5 (4.1%)</td>
<td>13 (11.5%)</td>
<td>18 (7.7%)</td>
</tr>
<tr>
<td>Total</td>
<td>121 (100%)</td>
<td>113 (100%)</td>
<td>234 (100%)</td>
</tr>
</tbody>
</table>

Noticing the percentages of declarations, there are differences between the opinions. Traditional school teachers, compared to their Critical Thinking colleagues, have stated that they rarely organize
teaching discussions and debates during their teaching. Interesting and significant in this case is the case is the percentage of teachers who did not respond at all to the above statement. This is a signal that the teachers of these schools are often faced with dilemmas in their professional work. They seem to be in teaching techniques and strategies that offer solutions to specific learning situations and units. Organizing discussions with students in Critical Thinking schools is more routine. It is also closely linked to other aspects of contemporary teaching. First of all this percentage of teachers declares that their teaching is more democratic and more based on the philosophy of education, which aims at developing children’s innate talents and potentials. The smaller percentages of Critical Thinking teachers who did not declare the statement presented also indicates that these teachers have less dilemmas and uncertainties in their teaching work. They have clear educational goals and as such feel more secure and comfortable in their daily teaching work.

An important aspect of teaching in general and of contemporary in particular is the student’s learning activity. Teaching Critical Thinking, which is based on the achievement of educational goals and competencies, decide the theory and reading books, engages students in practical activities and in various teaching experiments. Their engagement in active learning where the student is the subject of learning responsible for their own successes is a constructive philosophy based on the achievements of the scientific disciplines of education. Teachers’ opinion was asked through questionnaires regarding on how much their students do in practical work and teaching experiments and the percentage of teachers declaring are in the Table 4.

Table 4: Do practical work or experiments

<table>
<thead>
<tr>
<th>Categories</th>
<th>Teacher of Critical Thinking School</th>
<th>Teacher of Traditional School</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N   %</td>
<td>N   %</td>
<td>N    %</td>
</tr>
<tr>
<td>Less than once a month</td>
<td>21 (17.4%)</td>
<td>20 (17.7%)</td>
<td>41 (17.5%)</td>
</tr>
<tr>
<td>At least once a month</td>
<td>28 (23.1%)</td>
<td>14 (12.4%)</td>
<td>42 (17.9%)</td>
</tr>
<tr>
<td>At least once a week</td>
<td>40 (33.1%)</td>
<td>45 (39.8%)</td>
<td>85 (36.3%)</td>
</tr>
<tr>
<td>At least once during the lesson</td>
<td>28 (23.1%)</td>
<td>20 (17.7%)</td>
<td>48 (20.5%)</td>
</tr>
<tr>
<td>No answer</td>
<td>4 (3.3%)</td>
<td>14 (12.4%)</td>
<td>18 (7.7%)</td>
</tr>
<tr>
<td>Total</td>
<td>121 (100%)</td>
<td>113 (100%)</td>
<td>234 (100%)</td>
</tr>
</tbody>
</table>

Looking at the percentage of teachers’ declarations from both school environments spread across the offered options, we notice significant differences and findings. The percentages of school teachers working according to the techniques and strategies of the Critical Thinking training program are almost evenly distributed. So they as a percentage value are not very far apart. Therefore this means that for the teachers of these school environments the students’ performances and practical work are a daily and common practice. Even the percentage of teachers who did not declare Critical Thinking schools for this question is much lower than their homolog’s from traditional schools. This demonstrates professional assurance and competence in successfully teaching and fulfilling the mission of the school.

The percentages of teachers’ declarations from traditional schools are more divergent. Also significant is the percentage of these teachers who did not respond at all to the statement. Overall, these percentages show these teachers do not have enough of the students, practical activities, test and learning experiences in their daily work in their educational agenda. It follows from this that the teaching in these schools is based more on textbooks and teacher’s speech and, conditionally, the student of these schools are also more attached to the school desk and to formal learning.

5. Discussion

Educational reform and teaching improvement are today debated in schools, in faculties of education, in leading institutions of education and in scientific publications. Reform is a process of restructuring which is a quick change needed for improvement (Suyadiet al., 2022), The topic of discussion is the implementation of contemporary teaching practices that increase the quality of schools and the learning
outcomes of students. In this frame, we talk about the various trainings that focus on the best possible preparation of teachers for the use of new teaching methods and techniques. In these debate topics, teachers are divided into two groups. The first and thankfully the largest group consists of teachers and other professionals in the field of education. This group of teachers’ community represents a contemporary and progressive point of view in education and is working hard to implement professional innovations and advanced pedagogical practices. In the other group are the minority teachers with slightly more traditional and conservative ideas. These older teachers have not yet sufficiently understood active teaching methods and are reluctant to implement them. Since reforms seem to change every few years, it's easy to understand why a veteran teacher wouldn’t want to collaborate on creating a new curriculum or around a reform idea that could become obsolete in a few years (Frank, 2017). For their non-implementation in the classroom, these teachers justify that they do not have teaching aids, that these teaching techniques and strategies do not adapt to the level of development of our schools, etc. However, today the progressive opinion is dominant that the critical thinking program is a good alternative for improving teaching. Teaching techniques and strategies help to realize the teaching in function of active and interactive learning of students. Intensive and fruitful discussions in the literature and in school environments are also developed for the use of teaching techniques and strategies according to critical thinking for specific teaching topics and subjects. In the frame of the improvement of teaching, the debates between teachers about the development of special components of educational practice are of interest: the development of critical and creative thinking of students, the democratization of interpersonal relationships at school, the involvement of students in active and interactive learning, control and assessment of students' progress in lessons, etc. True collaboration is a personal process that requires a willingness to share thoughts and partially formed knowledge, risk being wrong, and adopt new collaborative practices (Pherson & Pherson, 2013). Affective engagement in schooling is evident when a student is emotionally involved with their learning, school activities, peers, and teachers (Theron et al., 2022). Students need to discuss with others what they are learning, to write about it and to connect it with previous experiences by applying theoretical knowledge in practice (Richmond, 2007).

From the findings of the research, only 14.9% of traditional school students answered that they are always involved in teaching practices, while in the school of critical thinking, 25.1% are always involved in teaching practices. Based on these results, our schools should be improved and the critical thinking program should be implemented more.

The experiment done by Viera Boumová (2008) in the classroom divided into 2 groups of students, one group to learn with the contemporary methodology and the other group of students with the traditional methodology, brought results that both groups “bring results regarding the levels of knowledge encyclopedic, but that the modern methodology is even more effective in encouraging children to communicate and to create a positive attitude towards the subject” (Boumová, 2008, p.87).

If students are memorizing for an exam, then the knowledge learned is unlikely to improve critical thinking (Ahmad et al., 2014). The evaluation of teaching staff teaching performance is then reduced to satisfaction surveys constructed around students’ judgements of what they conceptualise as good and appropriate (Deneen & Prosser, 2021). Problem-solving activities encourage students to think and find the right solution. Critical thinking can help someone to consider various points of view to make the right decision based on careful, systematic, and logical efforts (Hidayati et al., 2020).

Teachers and students in their classrooms should develop critical thinking and use as many activities that encourage critical thinking. The findings of our study are consistent with the study of Zhang (2022), who conducted an experiment with 64 students of Zhejiang Yuexiu University in China, where 32 of the students were experimental participants and 32 students were traditional learning participants. Both groups of students received the same task. Students who received instruction and were more engaged showed higher results of critical thinking and based on proposals from students, debates, discussions, brainstorming, questions can improve critical thinking (Zhang, 2022).

The results of our study show us that critical thinking school students are always involved in debates and discussions (62.4%) compared to traditional school students (58%).
During the research, we also came across discussions that expressed serious concerns about the lack of teaching technology. According to school principals and teachers as implementers of the new philosophical approach to education, the lack of laboratories and other teaching materials is making it quite difficult for them to implement many teaching techniques and strategies.

6. Conclusion

Schools that apply the critical thinking teaching methodology have raised the quality of teaching by using techniques and strategies that mobilize students in the active acquisition of knowledge. Using active teaching methods, students are put in front of tasks and learning situations that require their intellectual commitment to search and find solutions. So the students engage with awareness and full will towards achieving success. In this way, they are subjective learning factors engaged and responsible in the path of their education. This approach prepares students for lifelong learning by creating work habits and creative skills found for work and active life in their social environments.

Schools of critical thinking develop democratic teaching. Teachers playing the role of instructor in the classroom initiate educational debates on environmental and social topics which are addressed through arguments and scientific analysis. From this approach, respecting different opinions, argued conclusions are drawn which help in the formation of progressive attitudes and the development of contributing personalities in society. As a result of the application of contemporary teaching methodology, interactive learning is a function of socialization and the development of positive human virtues. According to Vygotsky: Children’s sociability is the basis for social interactions with the people around them (International Bureau of Education UNESCO, 2008). Through this new philosophical approach, educators have also contributed to improving the quality of students’ learning and raising their learning results.

An important challenge for the education of teachers and school leaders is the help of teachers for the development of their cooperative and constructive skills in order to improve the teaching and learning process (Postholm, 2018). Students are more motivated to engage in learning because they are constantly informed and evaluated about their successes. They have created partnerships with teachers in project work, in researching information and creating teaching materials, and in setting standards of assessment and behavior in the classroom. So the application of critical thinking strategies has created a positivist spirit and a stimulating learning environment.

7. Limitations and Further Research

It should be noted that this research has its limitations. The number of subjects included in the research is small to make generalizations at the country level. The concepts of contemporary school and traditional school are relative because the differences in the quality of teaching between these school environments according to research findings are not very distinct. This is because the entire educational system of the country is on the way to reform. The difference is in what level of this journey the particular schools are. Some schools have made great progress on the road to reform, as there are others that have either not started this journey at all or are in the initial steps.

In order to obtain more extensive results, it would also be desirable to explore the effect of implementation on critical thinking by comparing primary and secondary education. Also, critical thinking is explored from the dimension of constructivist learning: learning styles, students’ self-efficacy or other elements. These are considered limitations of the current study, but at the same time a recommendation for future research.

References


