



Copyright © 2023 by Cherkas Global University
All rights reserved.
Published in the USA

European Journal of Contemporary Education
E-ISSN 2305-6746
2023. 12(4): 1296-1306
DOI: 10.13187/ejced.2023.4.1296
<https://ejce.cherkasgu.press>

IMPORTANT NOTICE! Any copying, reproduction, distribution, republication (in whole or in part), or otherwise commercial use of this work in violation of the author's rights will be prosecuted in accordance with international law. The use of hyperlinks to the work will not be considered copyright infringement.



**European Journal of
Contemporary Education**



ELECTRONIC JOURNAL

The Role of Technology and Education in Improving Students' Learning Outcomes

Ruzhdi Kadrija ^a, Agon Kokaj ^{a,*}

^a University "Fehmi Agani" Gjakova, Kosova

Abstract

Our study examined the effects of educational reform on improving academic performance in primary and lower secondary schools in Kosovo. We focused on the Critical Thinking training program, which aims to implement educational reform and improve students' academic results. This program has significantly reformed our education system by improving various aspects of teaching, and we collected and analyzed the opinions of students and teachers to evaluate its effectiveness. We began by discussing the theoretical basis of educational reform and its implementation in schools through a progressive approach and active teaching methods. This contemporary teaching philosophy considers the student an active subject engaged in acquiring knowledge and positive school experiences. When the student is engaged in acquiring knowledge and learning experiences, he participates in learning discussions and debates, contributing directly to the treatment of learning topics. This mastery of learning is a high form of learning by engaging the thinking process in school learning. To conduct comprehensive research, we collected and analyzed the opinions of 255 students from schools that apply interactive teaching methods and 262 that still use traditional teaching practices. We also obtained the opinions of 121 trained teachers who work according to contemporary teaching methodology, and 113 teachers who have not yet been trained in teaching approaches and strategies according to this program.

Keywords: critical thinking, contemporary teaching, interactive teaching, productive school, academic results.

1. Introduction

To enhance student performance, various public policies have been implemented over the last three decades. (Fisher, 2011). To make a student a good critical thinker, we need to teach them how to analyze and evaluate data and persuasive arguments (Maynes, 2013).

In the field of education, there is a new program that takes a constructivist approach to student learning. This means that students are seen as active participants and contributors to their

* Corresponding author

E-mail addresses: agon.kokaj@uni-gjk.org (A. Kokaj)

education and development. To implement this program, teachers use interactive teaching strategies that encourage research and constructive debate among students on specific educational topics. The goal is to reform the educational approach towards students, encouraging dialogical forms of learning where people collectively make meaning and learn from each other. Educational reform is a continuous process that aims to improve teaching practices to keep up with the changing socio-economic and technological landscape. To achieve this, national curricula, texts, and teaching standards must be updated regularly.

The term "traditional schools" refers to educational institutions where the teacher dominates the class through lectures and other forms of influence. In such schools, learning is often mechanical and formal, with an overload of information that fails to develop students' initiative or innate potential. This conservative mindset views students as passive listeners, tied to their desks and focused solely on the teacher, without the opportunity to collaborate with their peers. However, learning is heavily influenced by relationships, knowledge, environment, and what is important to the individuals involved (Bishop, 2020).

In traditional schools, students are taught without collaboration, are expected to accept the teacher's words blindly, and are compelled to learn outdated and impractical theoretical concepts that do not align with their interests and abilities. This outdated educational approach results in poor academic performance and fails to prepare students for lifelong learning (Basso et al., 2023).

The rapid advancements in technology and the economy have created a need for reforming outdated educational practices that do not promote the intellectual and technical skills of students. The findings of psycho-educational disciplines and market demands for education with critical and creative qualities have further emphasized the need for educational system reform. Modernizing teaching strategies and approaches is a set of innovations that can improve teaching and student performance in classes. Schools that implement active teaching methodologies and involve students in interactive learning are considered contemporary schools.

2. Literature review

The goal of educational reform is to modernize the entire educational process in our schools. The focus of teacher training is to implement contemporary teaching methodologies and progressive educational practices. To improve learning objectives and reform the educational practices of our schools, we need to scientifically analyze both our educational goals and global trends in the field of education. We should then harmonize contemporary trends and innovations in education with our positive educational traditions, opportunities, and objectives. This should be done for future generations with democratic views and competitive abilities. The reformation of our schools is closely related to the level of social development, demands of the labor market, and rapid technological changes. In the last two decades, many reform projects have been launched and tested in the schools of our country. However, many of these projects have not undergone a thorough analysis and planning process for the reformation of our education system (Kokaj et al., 2021).

The absence of competent leadership and thorough planning for educational reform has resulted in multiple challenges and uncertainties among those involved. This suggests that the authorities in charge of education in our nation have not adopted a well-informed strategy for devising and executing reforms in our education system (Kokaj et al., 2021).

The lack of proper planning and professional leadership in educational reform has caused significant difficulties and obstacles in modernizing our educational practices. According to educator Michael Fullan, the primary reason for the failure of this process is the inadequate planning for the reformation of educational institutions.

Schools that have teachers trained in implementing active teaching methods are working towards improving the teaching and learning experience in their school environments. These significant progressive changes in schools have been well-received by students, parents, and the school community. Scientific terms related to the reformation of educational practices and learning environments have become a part of the daily communication between teachers and school governing bodies. In reformed schools, students feel happy and willingly participate in learning tasks and debates. The improvement of learning environments has also relaxed and democratized the relationships between students and their teachers.

The partnership requires agents to, use sound reasoning and strategies to objectify research findings (Taysum, Arar, 2020).

Our research has identified several schools that have made significant progress in their efforts to reform. These schools have successfully established a culture of success and serve as positive examples for other schools that are struggling to reform. They are highly respected in their communities, as well as by education directorates, for their commitment to providing quality education and fulfilling their mission. However, it's important to note that the majority of schools we researched are still lagging in their efforts to reform their school environments.

During our research, we observed that many principals and teachers lack sufficient knowledge about contemporary teaching methodologies and strategies. They seem to have doubts and uncertainties about professional innovations and positive changes. We found teachers who do not understand the essence of educational reform and the benefits of modern approaches to children's education. In some schools, principals who lack professional competence have become an obstacle to improving the quality of teaching and education. These school leaders and teachers, without proper training and preparation, tend to be traditional and conservative in their educational practices. Therefore, school leaders should analyze and plan the implementation of specific professional innovations to improve the quality of education in their schools (Knapp, 2020). The relationships between the principals and teachers in these schools are formal and bureaucratic, leading to a lack of cooperation among the teachers. This lack of cooperation results in ineffective teaching methods, which force students to memorize irrelevant material. Furthermore, since teachers are uninformed about each other's teaching experiences, this hinders the students' motivation to learn and acquire new knowledge. In contrast, when learners believe in their ability to complete a task, their motivation to do so increases (Makkonen et al., 2021). In some schools, some teachers are progressive in their approach to education, even though they may be in the minority and lack the authority to bring about changes in their schools. This is because many traditional and conservative teachers resist introducing new teaching methods. However, such schools are becoming less common, and it is now more important to assess the implementation of modern teaching strategies. We believe that our educational system is already on a path of positive change and that educational institutions should support special schools in reforming their teaching environments.

3. Methodology

In this research, we want to analyze the effects of the educational reform in improving the student's learning outcomes. As research objectives we have:

- To compare the philosophical approach of critical thinking implemented in many schools with the traditional approach of schools that have not yet reformed their pedagogical practices.
- Through the research, we aim to emphasize the importance of implementing this program in other schools as a suitable alternative for reforming their practices.

The research questions for this study are:

- Does the educational approach and contemporary teaching methodology help improve student performance in our schools?
- What are the concrete contributions of this program in improving students' academic results and increasing schools' productivity?

In this research, we utilized the quantitative method to obtain opinions from students and teachers of contemporary and traditional schools. We gathered these opinions through a survey and present them in this paper as research findings, which we compare as numbers and percentages. Our research included 851 subjects, comprising 121 teachers trained for contemporary teaching and 113 teachers not trained for new teaching strategies. We also surveyed 255 students from contemporary and interactive teaching schools and 262 students from traditional and formal mechanical learning schools. Furthermore, we evaluated the impact of educational reform on enhancing academic outcomes through pedagogical documentation. To achieve this, we analyzed the academic results of 10 contemporary schools and 10 traditional schools, specifically focusing on the National Achievement Test of lower high school students. We analyzed the academic success of a total of 1172 students.

Table 1. Questionnaire for students

Students in class take		Every two consecutive months	Only one Time	Out of the 7 days	One time per every class
1	Taking Notes	1-1	2-2	3-3	4-4
2	Fully Focused in Class	1-1	2-2	3-3	4-4
3	Individual Debate	1-1	2-2	3-3	4-4
4	Class discussion	1-1	2-2	3-3	4-4
5	Subgroup discussion	1-1	2-2	3-3	4-4
6	Conducting a group test	1-1	2-2	3-3	4-4
7	Individual meditation and reading	1-1	2-2	3-3	4-4
8	Reading with a loud voice	1-1	2-2	3-3	4-4
9	Writing an essay	1-1	2-2	3-3	4-4
10	PowerPoint Presentations	1-1	2-2	3-3	4-4
11	Completing the tasks in class	1-1	2-2	3-3	4-4
12	Writing out an essay on the work that was done	1-1	2-2	3-3	4-4
13	Completing classwork	1-1	2-2	3-3	4-4
15	Future Tasks being completed	1-1	2-2	3-3	4-4
16	Problem analyses	1-1	2-2	3-3	4-4
17	Teleconference	1-1	2-2	3-3	4-4
18	Performing questions at task	1-1	2-2	3-3	4-4
19	Modelling the analysis	1-1	2-2	3-3	4-4

Table 2. Questionnaire for teachers

Outcome Results		0 % Approve	33.33 % Approve	66.6 % Approve	100 % Approve
1	How much is education valued?	1-1	2-2	3-3	4-4
2	How much do we have a basic education	1-1	2-2	3-3	4-4
3	Did we meet the objectives that were given to us?	1-1	2-2	3-3	4-4
4	What is the quality of teaching?	1-1	2-2	3-3	4-4
5	Feedback on our success	1-1	2-2	3-3	4-4
6	Personel assesment of work	1-1	2-2	3-3	4-4

4. Results

The changes that have been made in schools have had a positive impact on the performance of students. Our research has confirmed that the use of contemporary teaching strategies in reformed schools has resulted in an improvement in the quality of learning. We have observed differences in opinions between students and teachers in the two school environments, particularly in certain aspects of educational practices. We recognize that these differences in opinions are a normal part of the educational landscape. The schools that have successfully applied progressive teaching philosophies have yielded better learning outcomes when compared to their counterparts who have not yet implemented educational reforms. We conducted a survey in which both sets of

students were asked about their satisfaction levels with their learning outcomes, and the results are presented in [Table 3](#).

[Table 3](#) displays the satisfaction level of students from both reformed and traditional schools about their learning outcomes. The "Never" category has a total of 35 students, with 2.1 % from reformed schools and 4.6 % from traditional schools. The table also represents the percentage of students content with their results in various learning categories, including writing reports, giving presentations, carrying out work reports, completing in-class assignments, working on independent projects, solving different tasks, participating in debates, and answering questionnaires.

We also conducted a questionnaire for teachers, which is shown in [Table 2](#). The questionnaire focuses on five aspects: teachers' evaluation of the quality of education, the background of students about their work, objectives that students obtained concerning their work, the quality of teaching, and teachers' communication regarding student success. Teachers were asked to rate these aspects on a scale ranging from "Never" to "Always." The results show a wide range of responses in each category.

Table 3. How much is the satisfaction of the outcome results

LEVEL	Pupils in Reformed institutions	Pupils in Traditional institutions	Total
	N (%)	N (%)	N (%)
0	(1.1%)	(14.6%)	(10.8%)
1	(1.8%)	(4.1%)	(1.7%)
2	(1.11%)	(1.4%)	(2.02%)
3	(10.4%)	(4.6%)	(59.5%)
4	(3.9%)	(9.8%)	(1.6%)
Total	(18.31%)	(34.5%)	(75.62%)

- Pupils in Reformed Institutions: Pupils were surveyed from institutions that apply the standard methodology.

- Pupils in Traditional Institutions: Pupils were surveyed from institutions that apply the traditional methodology.

Table 4. The output P values for Table 3

		Reformed Institutions	Traditional Institutions
Reformed Institutions	Pearson Correlation Sig. (2-tailed)	1	0.998**
	N	6	6
Traditional Institutions	Pearson Correlation Sig.(2-tailed)	0.998**	1
	N	6	6

Note: **.Correlation is significant at the 0.01 level (2-tailed).

The table above shows the differences of opinion between students from reformed schools and those from traditional schools. This shows that the educational results of students from schools with reformed educational practices are slightly higher compared to the educational results of students from traditional schools. The most positive opinions about their teaching performance are evidence of contemporary teaching and stimulating learning environments for learning achievement. The next question for teachers of contemporary and traditional schools was how much the students make presentations in front of the class. Presentations of students' works in front of the class are important activities that are followed by discussions and constructive learning debates.

Table 5. Student Presentations

The Level of time	Teachers in Reformed institutions	Teachers in Traditional institutions	Total
Every two consecutive months	N (%)	N (%)	N (%)
	(7.9 %)	(18.7 %)	(19.0 %)
Only one Time	(23.7 %)	(3.1 %)	(1.8 %)
Out of the 7 days	(0.2 %)	(1.9 %)	(3.1 %)
One time per every class	(31.6 %)	(2.0 %)	(16.9 %)
N/A	(9 %)	(1.3 %)	(18.8 %)
Total	(72.4 %)	(27 %)	(59.6 %)

- Reformed Institutions: Teachers were surveyed from institutions that apply the standard methodology.

- Traditional Institutions: Teachers were surveyed from institutions that apply the traditional methodology.

Table 6. The output P values for Table 5

		Reformed Institutions	Traditional Institutions
Reformed Institutions	Pearson Correlation	1	0.991**
	Sig. (2-tailed)		0.000
	N	6	6
Traditional Institutions	Pearson Correlation	0.991**	1
	Sig.(2-tailed)	0.000	
	N	6	6

Notes: **.Correlation is important at the value 0.01 level (2-tailed)

The percentages of teachers' opinions from the two school environments that are the object of analysis and comparison are distributed in four variants. There are differences between the teachers of these two school environments in terms of the frequency of students' appearance in front of the class. Teachers of critical thinking schools have stated that their students present their work and assignments more often in front of the class. Unlike critical-thinking teachers, those in traditional schools are less likely to organize presentations in front of their students, which means they also find group work and collaboration less applicable.

Statistical Analysis

For this paper, we analyzed the learning results of 1172 students who were divided into two groups. In these schools, teachers are taking on the role of both instructors and fellow travelers on their students' intellectual growth journey. In contrast, traditional schools tend to have more formal and less cooperative teacher-student relationships, which may hinder students' preparation for independent learning and lifelong education. For this paper, we analyzed the learning outcomes of 1172 students who were divided into two groups. The first group of learning outcomes that were analyzed consisted of 648 students from 10 schools with teachers trained in contemporary teaching. While in the second group, the learning achievements of 524 students from 10 schools with teachers not trained in contemporary teaching were analyzed. The educational results of these 20 schools achieved in the Achievement Test and presented as an average percentage are as follows:

Table 7. The output Test Results for Reformed and Traditional groups

Number of Institutions	Reformed %	Traditional %
1.1	81	30
2.1	80.04	40
3.1	70	30
4.1	60	40
5.1	30	60
6.1	50	50
7.1	40	20
8.1	20	20
9.1	10	20
10.1	60	30
Average	50.104	34

Table 8. The output P values of Table 7

		Reformed	Traditional
Reformed	Pearson Correlation	1	1.000
	Sig. (2-tailed)		
	N	2	2
Traditional	Pearson Correlation	1.000	1
	Sig.(2-tailed)	2	2
	N		

The table above shows the average percentages of general learning results achieved in the Achievement Test. Students were tested in 9 subjects, and we presented the overall averages of contemporary and traditional schools. As seen from the data, there are significant differences in averages expressed as percentages between these two school environments. Students from schools that implement active teaching methodologies have achieved better results in the official test for the 9th grade. The differences in the percentages of averages, 50.104 % and 34 %, are pronounced. The higher educational results of students from reformed schools demonstrate the importance of applying contemporary teaching philosophies to create relaxing and motivating learning environments that encourage active and interactive learning. The average percentages for the special subjects achieved in this test are:

Table 9. The Test results of each course

Course	Reformed %	Traditional %
Albanian	60	57
English	80	80
History	70	50
Geography	60	50
Maths	60	60
IT	70	70
Physics	60	47
Chemistry	58	50
Biology	60	60
Average	64.22	58.22

The success of students in different subjects is a clear indication that schools that have adopted new educational practices are of better quality. Even within specific subjects, there are noticeable differences in the percentages of the averages, which demonstrate that schools that have been slow to adopt new educational practices have lower learning outcomes. Higher educational achievements reflect positive changes in the approach to students and the educational process in general. These improvements lead to better learning outcomes and prepare students more effectively for work and lifelong learning. It is worth noting that the educational results compared in [Tables 7](#) and [9](#) are from schools where we conducted the survey.

Table 10. The output P values of Table 9

		Reformed	Traditional
Reformed	Pearson Correlation	1	0.922
	Sig. (2-tailed)		0.000
	N	9	9
Traditional	Pearson Correlation	0.922	1
	Sig.(2-tailed)	0.000	
	N	9	9

5. Discussion

In discussions, a progressive view dominates the necessity of implementing innovative instructional strategies and innovations that prepare generations for an increasingly qualified workforce. In contemporary society, to be objective and competitive in society, people must verify information from reliable and contradictory sources ([Tarchi, Villalón, 2021](#)). On the other hand, in some school environments, we still find conservative opinions of teachers who oppose changes in education for some non-scientific reasons. These teachers are usually older have not fully understood the active teaching methods, and have professional doubts and uncertainties in their implementation. Interesting and fruitful discussions also take place among teachers for the effective implementation of critical thinking techniques and instructional strategies. These instructional techniques and strategies help to achieve active and interactive learning and form a research culture among students. In the context of improving the performance of students in lessons, debates are also held in schools to improve the specific competencies of students. This type of competency includes abilities and skills related to autonomous learning, the development of creativity, and the capacity to adapt to new situations ([Amor, Serrano Rodríguez, 2019](#)). Most teachers prioritize the comprehensive development of their students. Apart from providing theoretical knowledge, teachers aim to instill progressive attitudes, open-mindedness, creativity, and problem-solving skills in their students. Creative thinking enhances problem-solving abilities, which can have far-reaching benefits in both personal and professional domains ([Fazal et al., 2023](#)). Teachers have expressed serious concerns about the lack of laboratories and teaching technology in schools. According to them, the absence of laboratories and various workshops in schools makes it difficult to cultivate students' work habits and develop their talents and interests.

Further research

It is crucial to conduct further research to reform education and enhance students' academic performance. The effectiveness of schools and the success of students in their studies are influenced by various factors. Therefore, it is essential to study the role of these factors in improving our educational system. The research should focus on examining the impact of educational reform in different social contexts. Additionally, it is important to investigate the implementation of modern teaching strategies that promote active and interactive learning.

6. Conclusion

Based on the results of this study, we can conclude that schools that adopt the philosophical approach of critical thinking have improved the academic performance of their students by engaging them in active learning. By using active teaching methods, students are presented with instructional tasks that require their intellectual involvement to search for and discover solutions. Problem-solving activities encourage students to think critically and find the most appropriate solution ([Kadrija et al., 2022](#)).

Seeking alternatives and finding solutions to tasks can help cultivate children's interest in new knowledge and motivate them to actively pursue academic success. In other words, when learners expect to succeed and experience intrinsic or extrinsic value in innovation, they are more likely to try innovating on their own (Soleas, Bolden, 2020). During learning, students are the center of attention, and responsible for their intellectual and human development. Schools that promote critical thinking and interactive teaching methods play a crucial role in developing a sense of community and democratic attitudes among their students. Through active and collaborative learning, children not only gain knowledge but also share their experiences and opinions on social and environmental issues discussed in class. This helps them learn to argue and reach consensus, which contributes to the development of creative and democratic personalities. To ensure fairness in education, teachers must acknowledge that students' life circumstances can affect their learning. Therefore, it is essential to create a stimulating learning environment that caters to students with different abilities and interests (Schenker et al., 2019).

Teachers need to be aware of their student's cognitive abilities and emotions during lessons to create positive learning experiences and foster a progressive attitude toward education. Interactive learning in reformed schools is of higher quality than in traditional schools because students are encouraged to conduct experiments, collect data, and analyze scientific theories. Theories not only aid in the understanding of practice but also help to formulate goals (Ali et al., 2019).

Many students are taught scientific theories through mechanical instruction without enough practice and application. This type of learning is quickly forgotten and does not help students develop their creative and inventive abilities to find solutions in everyday situations. However, students in reformed schools are more motivated to achieve high academic results because they are constantly informed and appreciated for their successes. They have established partnerships with their teachers in various instructional trials and projects and in setting standards for assessment and behavior in the classroom. The implementation of the strategies of this program has democratized the relationships between teachers and their students and created an appropriate and stimulating environment for learning. The teacher must recognize the cognitive possibilities and emotions of the students during the lesson to create positive learning experiences and progressive attitudes toward education (Lujan et al., 2021).

It is not possible to make generalizations at the national level based on the research conducted, as the number of teachers and students involved is too small. Additionally, the terms "contemporary school" and "traditional school" are relative concepts, as the differences in the use of active learning strategies between them are not very distinct. This is because the entire educational system in our country is undergoing reformation, and the difference lies in the level of progress each school has made in this journey. While some schools have made significant progress and are familiar with the new teaching methodology, others are either at the early stages of this journey or have not yet started the reform process.

References

Ali Leijen et al., 2019 – Ali Leijen, Margus Pedaste, Liina Lepp (2019). Teacher agency following the ecological model: How it is achieved and how it could be strengthened by different types of reflection. *British Journal of Educational Studies*. DOI: 10.1080/00071005.2019.1672855

Alshoara, 2023 – Alshoara, A.M.M. (2023). The reality of creativity at the basic stages in Jordanian private schools within the Arabic language curriculum in the light of my speaking and logical thinking skills from the point of view of the Arabic language teachers working there. *Technium Social Sciences Journal*. 42(1): 36-48. DOI: <https://doi.org/10.47577/tssj.v42i1.8710>

Amor, Serrano Rodríguez, 2019 – Amor, M.I., Serrano Rodríguez, R. (2019). The generic competencies of the initial teacher training. A comparative study among students, teachers, and graduates of university education degree. *Educación XX1*. 22(1): 239-261. DOI: 10.5944/educXX1.21341

Basso et al., 2023 – Basso, D., Corradini, G., Cottini, M. (2023). "Teacher, forgive me, I forgot to do it!" The impact of children's prospective memory on teachers' evaluation of academic performance. *British Journal of Educational Psychology*. 93: 17-32. DOI: <https://doi.org/10.1111/bjep.12537>

Bishop, 2020 – Bishop, M. (2020). Indigenous education sovereignty: another way of 'doing' education. *Critical Studies in Education*. DOI: 10.1080/17508487.2020.1848895

Bourke et al., 2020 – Bourke, A., Vanderveken, J., Ecker, E., Bell, H., Richie, K. (2020). “Teaching is a learning experience”: Exploring Faculty Engagement with Low-Income Adult Learners in a College-Community Partnership Program. *Canadian Journal of Education/Revue Canadienne De l'éducation*. 43(2): 313-340. [Electronic resource]. URL: <https://journals.sfu.ca/cje/index.php/cje-rce/article/view/3897>

Canales, Maldonado, 2018 – Canales, A., Maldonado, L. (2018). Teacher quality and student achievement in Chile: Linking teachers' contribution and observable characteristics. *International Journal of Educational Development*. 60: 33-50. DOI: <https://doi.org/10.1016/j.ijedudev.2017.09.009>

Cooper, 2016 – Cooper, A. (2016). Using critical pedagogy to stimulate learning through dialogue at a youth radio show. *Education As Change*. 20(2): 44-66. DOI: <https://doi.org/10.17159/1947-9417/2016/732>

De Backer et al., 2021 – De Backer, L., Van Keer, H., Valcke, M. (2021). Collaborative learning groups' adoption of shared metacognitive regulation: examining the impact of structuring versus reflection-provoking support and its relation with group performance. *Eur J Psychol Educ*. 36: 1075-1094. DOI: <https://doi.org/10.1007/s10212-020-00511-3>

Fazal et al., 2023 – Fazal, K., Sarwar, U., Nargiza, N., Khan, B., Qi, Z. (2023). Creative Thinking in Pakistani Public Schools: A Qualitative Study of Teachers' Perspective and Practices. *Creative Education*. 14: 637-657. DOI: [10.4236/ce.2023.144042](https://doi.org/10.4236/ce.2023.144042)

Fisher, Alec, 2011 – Fisher, A. (2011). Second Edition, *Critical Thinking An Introduction*, Cambridge University Press, Cambridge.

Heidi et al., 2021 – Lujan, Heidi L., Raizada, A., DiCarlo, Stephen E. (2021). A critical skill of teaching: Learning the cognitive and emotional states of our students during class. *Advances in Physiology Education*. 45: 59-60. DOI: [10.1152/advan.00219.2020](https://doi.org/10.1152/advan.00219.2020)

Hooley, 2020 – Hooley, N. (2020). Reconstructing curriculum as a philosophy of practice. *Curriculum Perspectives*. 40: 123-130. DOI: <https://doi.org/10.1007/s41297-020-00119-z>

Kadrija et al., 2022 – Kadrija, R., Shatri, G.Z., Këndusi, V.V. (2022). Effects of Critical Thinking Implementation on Enhancing of Teaching Quality. *Journal of Educational and Social Research*. 12(6). DOI: <https://doi.org/10.36941/jesr-2022-0159>

Knapp, 2020 – Knapp, M. (2020). Between legal requirements and local traditions in school improvement reform in Austria: School leaders as gap managers. *Eur Educ*. 55: 169-182. DOI: <https://doi.org/10.1111/ejed.12390>

Kokaj, Maloku, 2021 – Kokaj, A., Maloku, B. (2021). A communication system for smart network systems. *IFAC-PapersOnLine*. 54(13): 68-71. DOI: [10.1016/j.ifacol.2021.10.420](https://doi.org/10.1016/j.ifacol.2021.10.420)

Kokaj, Maloku, 2021 – Kokaj, A., Maloku, B. (2021). A control model for ICT educational purposes. *IFAC-PapersOnLine*. 54(13): 460-463. DOI: [10.1016/j.ifacol.2021.10.491](https://doi.org/10.1016/j.ifacol.2021.10.491)

Lian et al., 2022 – Lian, Yi, Kwok Kuen Tsang, Jocelyn Lai Ngok Wong, Guanyu Li (2022). Alienated Learning in the Context of Curricular Reforms. *Education As Change*. 26 (May): 29.

Makkonen et al., 2021 – Makkonen, T., Tirri, K., Lavonen, J. (2021). Engagement in Learning Physics Through Project-Based Learning: A Case Study of Gifted Finnish Upper-Secondary-Level Students. *Journal of Advanced Academics*. 32(4): 501-532. DOI: <https://doi.org/10.1177/1932202X211018644>

Maynes, 2013 – Maynes, J. (2013). Thinking about Critical Thinking. *Teaching Philosophy*. 36: 4. DOI: [10.5840/teachphil2013931](https://doi.org/10.5840/teachphil2013931)

Schenker et al., 2019 – Schenker K., Linnér S., Smith W., Gerdin G., Mordal K.M., Philpot R. (2019). Conceptualising social justice – what constitutes pedagogies for social justice in HPE across different contexts? *Curriculum Studies in Health and Physical Education*. 10(2). DOI: <https://doi.org/10.1080/25742981.2019.1609369>

Soleas, Bolden, 2020 – Soleas, E., Bolden, B. (2020). What Helped Me Innovate: Identified Motivation Factors from Canadian Innovators' Education Experiences. *Canadian Journal of Education/Revue Canadienne De l'éducation*. 43(3): 740-769. [Electronic resource]. URL: <https://journals.sfu.ca/cje/index.php/cje-rce/article/view/4193>

Sturkey, 2017 – Starkey, L. (2017). Three dimensions of student-centered education: a framework for policy and practice. *Critical Studies in Education*. DOI: [10.1080/17508487.2017.1281829](https://doi.org/10.1080/17508487.2017.1281829)

Shin, Bolkan, 2020 – Shin M., San Bolkan, S. (2020). Intellectually stimulating students' intrinsic motivation: the mediating influence of student engagement, self-efficacy, and student academic support. *Communication Education*. DOI: [10.1080/03634523.2020.1828959](https://doi.org/10.1080/03634523.2020.1828959)

[Tarchi, Villalón, 2021](#) – Tarchi, C., Villalón, R. (2021). The influence of thinking dispositions on integration and recall of multiple texts. *Br J Educ Psychol.* 91: 1498-1516. e12432. DOI: <https://doi.org/10.1111/bjep.12432>

[Tavris, Wade, 1997](#) – Tavris C., Wade, C. (1997). Psychology in perspective, Second edition, Longman, Library of Congress Cataloging-in-Publication Data. P. 10.

[Taysum, Arar, 2020](#) – Taysum, A., Arar, K. (2020). Action Research Design for an International Boundary Crossing Study to Improve Student and Teacher Participation in School Processes and Practices to Improve Well-Being, Learning and Learning Outcomes. *Italian Journal of Sociology of Education.* 12(1): 8-25. DOI: [10.14658/pupj-ijse-2020-1-2](https://doi.org/10.14658/pupj-ijse-2020-1-2)

[Zylfiu, Njazi, 2005](#) – Zylfiu, N. (2005). Didactics, University of Pristina, Pristina.