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Development of Inclusive Competencies through Teacher Training

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Abstract

Inclusive teacher training should respond to different factors, such as educational policies and theoretical perspectives. As the importance of inclusion in education increases, it is expected that training programs in this perspective should increase at least in number, as recommended by existing studies in the last decade in Romania. Based on this finding, the present research aims to identify whether there was a change in the number, forms, and contents of inclusive training programs between 2017 and 2022 in Romania, by comparing the names, categories of training programs, and future training offers. This research examines how many training programs have been carried out in the teacher's training centers, synthesizes information about training topics and trainers, and identifies potential training programs for the 2022–2023 school year.

Keywords: inclusive training; teachers training; trainers.

JEL Classification: I290 Education: Other.

1. Introduction

Integrating inclusive practices into learning processes is a complex challenge involving actions at

political, university, school, and community levels in Romania. One of the most important actions arises from the need of the education system to have teachers with inclusive competencies, trained in an inclusive pedagogy that allows them to integrate all children into classroom work.

Participating in inclusive education training programs and the subsequent impact on the teaching methodologies used by teachers in classrooms is the biggest challenge.

The issue of practice revolves around the observation that, despite the global trend for inclusive school environments, effective implementation of such frameworks often lags. This could be due to various factors, including teacher preparation, professional beliefs, and the repertoire of strategies teachers possess to address diversity (Ainscow et al., 2006). Research consistently indicates that teachers' attitudes significantly influence the success of inclusive education (Florian, 2008). Inclusive pedagogy is a concern for the development of educational inclusion and learning, both in academic and pre-university settings (Florian, 2021). Therefore, there is a need to understand how training in this area can translate into changes in classroom pedagogical practices. The literature has provided a wealth of studies exploring outcomes associated with professional development in inclusive education. The researchers argue that well-designed training can lead to improved teacher confidence and improved classroom practices that support learning for all students (Desimone, 2009). However, such professional development must be supportive, team-based, continuous, and reflective, focusing not only on theoretical knowledge but also on practical application (Guskey, 2002). However, knowledge gaps remain, especially in the specific aspects of training that most effectively influence teaching practices. In addition, the variation in the quality and content of training programs makes it difficult to draw general conclusions about their effectiveness (Darling-Hammond et al., 2017).

The solution is creating a powerful actional theory platform that signifies a theoretical framework focused on action and the practical applicability of the theory. Training programs must be based

on a strong platform of actional theory. John Dewey, who is well known for his contributions to pragmatism and the theory of action reflected in education, considered that there must be a close connection between theory and practice.

This research aims to provide an image of inclusive education training during the last five school years and to analyze program offers in the same paradigm for the 2022–2023 school year. The data collected in this way were contextualized and analyzed taking into account the status and evolution at the country level in terms of inclusive training (i.e. how teachers are trained to be able to work with children with special educational needs (SEN)), as well as in corroboration with quantitative and qualitative data that were requested from institutions. By using a complex methodology that included various research tools and by investigating multiple categories of actors, the research proposes a systematic analysis of the policy framework, of the implementation and reporting modalities of the continuous professional training in Romania. Our approach is particularly focused on the level of teacher training in the field of inclusive education.

2. Literature Review

In the international landscape, given the critical importance of these programs, a variety of training opportunities have emerged. For example, courses that incorporate Universal Design for Learning (UDL) principles help teachers design materials and instructional activities that can accommodate a wide range of learners (Meyer et al., 2014). Academic institutions collaborate with experts in the field to ensure their programs are up-to-date and evidence-based.

Inclusive continuing professional development (CPD) programs also play a key role in promoting continuous competence development among teachers. CPD events, seminars, and workshops are regularly organized by educational associations and professional bodies. These meetings often focus on the latest research, practical strategies, and policy updates relevant to inclusive education. For example, training on strategies to effectively manage classroom diversity or using

technology to improve accessibility is a joint CPD offerings (Florian, 2021). Such programs often advocate for policy change and provide toolkits and resources for educators who want to implement inclusive strategies in their classrooms (Ainscow et al., 2006).

Since 2020, in the context of the pandemic, online platforms and e-learning resources have also contributed significantly to the availability of inclusive education training. Open-access courses and webinars allow for a more flexible and widespread dissemination of knowledge. Teachers from remote regions or with insufficient resources can access high-quality training courses and join global communities of practice but this is not enough. These online forums and resources also create opportunities for peer learning and international collaboration (Hodkinson & Williams-Brown, 2023).

In Romania, the ICCS study conducted in 2022 highlights that 58% of responding teachers in research (n=2248) declared that they participated in training programs in the field of inclusive education and diversity (Schulz et al., 2022, p. 61). This concern is found in the multitude of professional development programs in an inclusive perspective in the training offers of each continuous training provider at the county, regional, or national level.

3. Methodology

The research focused on the detailed analysis of training offers and accompanying documents from all teaching staff houses in Romania. Data obtained from their official websites was used. Three samples were used to analyze the training carried out and proposed for deployment during 2017–2023. The first sample consisted of 21 CCDs, corresponding to the 21 questionnaires in which the training programs carried out are presented. Thus, 143 courses on inclusive education and 55 proposed programs were collected and analyzed. The profile of trainers has been described only generally, the competencies of trainers derive from the specific conditions of the Regulation on the organization and functioning of the teaching staff house (ORDER No. 5554 of October 7, 2011, art. 34). For the second sample, covering the years 2022–2023, the websites of

the CDCs were used to analyze training offers and institutional reports. The 41 available training offers were analyzed from the 41 websites of the CDCs, from which 117 training programs in the field of inclusive education proposed for 2022–2023 were collected for analysis.

Samples	Sources	Date	No. of courses	No. of trainers
1	41 of CCD (teachers' training centres)	21 of questionaries	41 CCD (teachers training centres) 55 de training programs in the field of inclusive education proposed	160
2	41 offers 2022–2023 from sites	41 offers	117 programs	203

Table 1. Sample structure

Research questions

Q.1. Is there any connection between the number of teachers in Romania and the number of training programs in the field of inclusive education (approved, accredited, or complementary) proposed and carried out through the houses of the teaching staff?

Q.2. Are there significant differences in access to inclusive education training between different categories of teachers (teachers, primary school teachers, pre-primary school teachers, etc.)?

Q.3. What are the main themes and modules addressed in the inclusive education training programs of the last 5 years?

Q.4. How does the content of training programs align with the current needs of teachers in the context of inclusive education and current trends in the field?

Q.5. What are the prospects for developing training in inclusive education in the coming years? What programs are the teachers' houses developing in this area in the next school year 2022–2023?

Q.6. What has been the trend of access of secondary school teachers to inclusive education training programs in the last 5 school years?

Q.7. What are the main challenges encountered in organizing and implementing training programs in inclusive education within a clear strategic framework?

Q.8. What is the profile of trainers of training programs?

General hypothesis – Lifelong learning courses in inclusive education promote the values of a pedagogy based on learning which has developed communities of practice and collaborations between teachers.

Research methods

The investigative approach to continuous professional development included both quantitative research methods and qualitative research methods such as document analysis and questionnaire-based surveys. By analyzing the documents taken into account for this research, we pursued:

- Centralize accredited and approved courses organized in counties in the last five years (2017–2022) that explicitly had at least one module/theme on inclusive education. The list of courses may include courses organized both by the teaching staff house and by any other providers. For the mentioned courses, the competence sheets and modules/themes/disciplines, their division into hours, and the list of trainers' competencies were attached;
- What are the courses in the field of inclusive education in the offers of the teaching houses for the school year 2022–2023 (Name, no. of hours, content)?

4. Results and Discussions

For the 21 counties from which we received the situations, centralizing the total number of accredited and approved programs in the field of inclusive education and the total number of participants, the following resulted:

No of the participants approved programs					No of participants approved programs	No of participants accredited programs	No approved participants & accredited
School year							
2017-2018	2018-2019	2019-2020	2020-2021	2021-2022			
1644	**1922**	**1115**	**1004**	**1419**	**7104**	**7603**	**14707**

Table 2. Training situation 21 CCDs

The centralization of the following courses takes place starting with the school year 2017–2018 until the school year 2021–2022, collecting the situation from 20 county CCDs and Bucharest municipality. There were inventoried 143 professional training courses, carried out during the mentioned period.

Their analysis followed the theme of the training course, the total number of hours of training in total and the total number of hours of training on inclusive education, the number of course participants, as well as the number of participants at each level of education (preschool, primary, secondary, high school).

The courses were classified according to five categories: *Inclusive education (49,64%)*, *Adapted curriculum and SEN (17,99%)*, *Learning deficiencies and difficulties (15,11%)*, *Dropout prevention and school reintegration (10,07%)*, Other (7,19%). In the category "Other", courses such as "School-family-community Partnership", "Curriculum at school decision", "Practical Toolkit in positive classroom discipline", "International humanitarian law", "The Role of quality education in socio-economic development and Interculturality" were included.

We analyzed how the total number of participants evolved each school year to identify general trends: 2017–2018 (*n=1644*), 2018–2019 (*n=1922*), 2019–2020 (*n=1115*), 2020–2021 (*n=1004*) to 2021–2022 (*n=1419*). Variations in the number of participants are observed from one year to the next, reflecting possible changes in interest in accredited programs, as well as the impact of

external factors such as the COVID-19 pandemic.

We analyzed the competence sheets and the proposed modules/themes/disciplines from the list of 54 training courses offered by CCD for the school year 2022-2023.

To synthesize and analyze these topics of training courses from the perspective of inclusive education, we can group and classify modules and topics into several main categories that reflect the objectives and methods of the inclusive approach in education: *Fundamentals of inclusive education, Specifics of groups with special needs, Teaching strategies and school projects, Integration and inclusion in educational context, international approaches and practices*. Using VOSviewer (2023) to analyze the topics of education training courses, we obtained a picture of the relationships and relative importance of different topics and concepts within the field. We have generated a concept map linking educational themes relevant to inclusive and intercultural education, see the figure below:

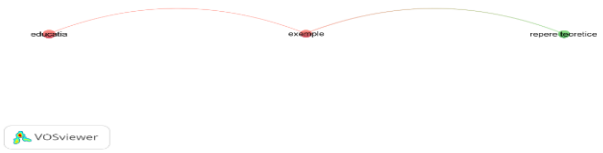

Figure 1. Thematic programs and training

Analysis ***of course competency sheets*****,** considering the three dimensions of the Inclusion Index proposed by Booth and Ainscow (2015), allows us to identify how these ***competencies of the proposed training programs*** contribute to creating an inclusive educational environment.

Community strengthening: Many of the competencies listed emphasize the importance of creating an educational community that values diversity and promotes inclusion where the functions of the manager and the role of the leader are clearly defined.

School development for all: Competences involving the understanding and application of theoretical and methodological concepts specific to the management of an inclusive school point in a direction towards developing policies that facilitate equal access and participation of all students

Directing learning: Competences related to adapting learning strategies to encourage active participation and engagement of all learners reflect a commitment to inclusive learning practices.

Discussions on trainers. Among the trainers there are both classroom teachers and methodists, responsible for the development and implementation of innovative teaching methods, as well as specialists in pedagogical training, thus highlighting the complexity and multifunctionality of the roles assumed in the current educational context. In the analysis carried out, we did not have the necessary data to identify the training of trainers in teaching-learning in the field of inclusive education, nor their experience in this thematic field. It is worth emphasizing the idea that training in inclusive education has its specificity, today even a pedagogy of inclusion is developing, with its dimensions and particularities, and we ask ourselves how many of those who are trainers have gone through this type of training themselves. Correlating with studies conducted in this field, it results that adherence to the values of inclusion, positive, open attitudes, and practical practice are necessary dimensions for trainers in this field.

5. Conclusions

This analysis highlighted important aspects regarding the current status and evolution of inclusive education training programs in Romania, with a specific focus on the last five years. The results of the study reflect significant progress in offers, but also persistent challenges in the field of inclusive education.

The general assumption that lifelong learning programs in inclusive education promote the values of a learning-based pedagogy and develop communities of practice and collaborations between teachers has **not** been fully confirmed. The analysis showed a decrease in the number of training programs that took place through teachers' homes in 2017–2022, a diversification of the topics addressed, and the participation of teachers from different levels of education, but also an

increase in the number of training programs in the offers for the school year 2022–2023, but not enough elements of inclusion pedagogy and valorizing approach to diversity are yet proposed, with a focus on individualized/customized tools and working methods.

Q1. The number of approved, accredited, or complementary training programs in the field of inclusive education carried out and proposed through the houses of the teaching staff is directly proportional to the number of teachers in Romania. Therefore, the offer is consistent in the field.

Q2. In-service training needs to be adapted to meet the diverse needs of teachers at different stages of their educational careers, must be relevant and practical, combining theory with practice and focusing on developing the skills needed to meet today's educational challenges, including inclusive education and working with students with special needs, as demonstrated in other studies conducted by Carroll, Forlin și Jobling (2003), Round și Barley (2008), Mei, Li și Mei (2003). This information indicates that participation in in-service training courses is influenced by several complex factors, including both individual and contextual aspects, and that there is significant variation among teachers in terms of enthusiasm and commitment to these trainings.

The analyzed in-service training courses address a wide range of topics and modules relevant to inclusive education, as the nodes in **Figure 1** are connected by a line, suggesting that there is a link between them in the context of the analyzed data, the thickness of the lines indicates the frequency of the relationship between terms, and their position indicates the connections or association in the literature of the analyzed dataset.

Q4. We cannot verify the use of a variety of methods and active pedagogical approaches in continuing education courses. Although such active and interactive pedagogical methods and approaches are presented in the course sheets (80 of the 117 courses analyzed), we cannot verify whether they have been put into practice throughout the courses. The importance of interactivity during training programs is highlighted in the literature (Reynaga-Peña et al., 2018).

Q5. The justification for the 117 training programs analyzed from the 2022–2023 offer presents the

correlation of the programs with the needs analysis built on the needs of teachers (Salas & Cannon-Bowers, 2001).

Q6. No training contains in its description elements relating to providing opportunities for teachers to collaborate and build communities of practice.

Q7. 30% of secondary school teachers have completed training programs in the field of inclusive education. Secondary school teachers show an increased interest in participating in continuous professional development programs from an inclusive perspective. In international studies, researchers analyze the training of secondary school teachers emphasizing the importance of their professional development, emphasizing their role in improving teaching practices, and addressing the demands of all students (Royster et al., 2014; Sears et al., 2014; Villa et al., 2005)

Q8. Following the verification of educational policy documents at the national level specific to requirements for inclusive education and legislation governing teacher training to identify specific provisions related to in-service training in the field of inclusive education, no elements were found. Ten training programs were found out of the 117 proposed for organizations in 2022–2023 that include in their justification elements leading to European inclusive education policies. Two of them are designed and will be carried out within Grant EEA partnerships and projects. The analysis of the course files allowed us to identify that the competencies stated are found in the three dimensions of the Inclusion Index proposed by Booth and Ainscow (2015).

Q9. Based on the information analyzed on trainers' profiles, most have relevant studies and certifications that allow them to effectively support training, but it is not clear whether they have initial training in inclusive education. Other studies also provide insights into the necessary qualifications and competencies trainers should possess to contribute effectively to inclusive education (Machado și alții, 2023).

The study highlighted a positive increase in the number and diversity of training programs in inclusive education, with increased involvement of teachers from all education cycles. This

suggests a growing recognition of the importance of studying the dimensions of inclusive education within the Romanian education system. Access to training appears to be generally equitable, but the study did not identify some significant differences in access to training between different categories of teachers and between urban and rural settings. This indicates the need for continuous efforts to ensure equal opportunities in access to continuing vocational training.

Despite quantitative growth, the quality and impact of training remain variables difficult to measure, with significant differences in the approach and implementation of inclusive pedagogy. There is a need for better alignment of training curricula with the needs of teachers and pupils, real/concrete needs highlighted from daily practice, as well as more rigorous follow-up evaluation and monitoring of training effectiveness.

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Designing Generation Z Future Career in Challenging Times through Digital Marketing Education in Romania-Serbian Cross-Border Vision

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Abstract

Hardly employable categories in rural areas (young people without university degrees or a high school diploma), are enabled to start new jobs using IT technologies and market skills.

The objective of the study was to identify and create a pilot program in a cross-border Romanian-Serbian region by following the labour market needs. Nevertheless, the research underlines the importance of improving the quality of teaching and developing digital and marketing skills for youngsters by creating extracurricular programs in partnership. We applied 80 online surveys in two high schools Timis and Vrsac and conducted five semi-structured

interviews with companies.

The main result of the research is an extracurricular program “Digital U” which was created in accordance with the needs identified. The program will provide employment opportunities in the rural area of the cross-border region Timis-Vrsac by setting up personalized activities to promote employment by the market trends, implementing vocational training in digital and marketing skills, raising awareness regarding the importance of soft skills (teamwork, self-esteem, critical thinking) for youngsters with ages of 16-24 years from vulnerable groups to stay in their birthplaces, establish their businesses, and have families there.

Keywords: employability capability, cross-border cooperation, digital marketing training, need analysis, extracurricular program.
JEL Classification: I23, I25, L26, J24, I230, I250.

1. Introduction

In the context of a pandemic that immobilized cultural institutions and forced the government apparatus as well as the entire society to digitalize, the new generation of students called "Generation Z - born between 1990 and 2010" (Seemiller and Grace, 2017; Popova, 2017) have high expectations in terms of regarding the redefinition and adaptation of the educational system to their needs. In 1968, George Land administered a creativity test to 1,600 five-year-olds and found that noncreative thinking is learned. The study revealed that children ages 5 years old have a 98% children genius level on the creative scale, which in time decreases to 2% when they reach 19 years old. The creativity process implies two types of mental operations: divergent thinking and convergent thinking. Divergent thinking generates creative ideas by exploring many possible solutions, while convergent thinking identifies a particular set of logical steps to arrive at one solution. 5-year-olds were better at seeing alternative uses for objects and using approaches to solve the overall problem. As we get older and gain more experience using objects, we lose this functional fluidity, and instead become fixated on their “proper” use.

In this sense, students belonging to the Z Generation are motivated by commitment and creativity, to have the right to decide not to be influenced by teachers (Popova, 2017). From the studies of Northeastern University (2014), it emerges that the way of learning of this generation has certain peculiarities never seen in their predecessors:

- observation for learning due to the habit of YouTube tutorials for any type of activity undertaken;
- the strong desire for information accessibility at any time of the day on platforms with known and appreciated functionalities;
- practical achievement in understanding and adapting learned concepts to very different situations.

According to Černíková and Šnýdrová (2023), academic extracurricular activities that implies creativity have the highest positive impact on higher education enrollment and overall best academic outcomes. The same research note argues that disadvantaged children may be more likely to benefit from participating in this type of activity. In addition, Neely and Vaquera (2017) express the fact that all extracurricular activities positively impact children's level of self-esteem. For youngsters' creativity is a needed skill in the era where all the information can be access through different platforms. (Badea et al., 2013; Diaconescu et al., 2020) Now creativity is a must in digital marketing environment by using different platforms to access consumers (Brocato et al., 2015). There is evidence in the literature of including creativity tools in the marketing curricula (Diaconescu et al., 2019; Dickey & Lewis, 2010) and also developing interdisciplinary marketing programs. (Parker, 2014) Analyzing 320 job announcements posted in 2019 and 2020, Elhajjar (2023) found that there is a real need for jobs in digital marketing. The digital native consumers nowadays need to shop 24/7 online. (Prensky, 2001) The future of digital marketing is the neuromarketing technique where digital images probe deeper into consumer reactions, emotions and preferences by accessing more of their brain activity. Using neuromarketing allows researchers and practitioners to provide reliable and valid measures for cognitive and affective

responses of consumers during the consumption process (Wang et al., 2008) and allows for discovering real thoughts and emotions which cannot be determined via traditional research methodologies such as surveys, interviews, and focus groups. (Fortunato et al., 2014) Neuromarketing tools like EEG (electroencephalography), fMRI (functional magnetic resonance imaging), and eye-tracking record consumers' physiological and neurological responses for objective data about consumer reactions. (Wedel and Pieters, 2017).

The paper fulfills the gap in the literature on how to adapt the curricula of students to the current needs of the society and actual labor market. The are no studies performed regarding the labor competences of youngsters in the cross-border region. Vrsac and Timisoara are at a relatively small distance of only 60 km. Timisoara is a developed center at the border area, with a growing economy, low unemployment rate, significant educational and scientific structure, which attracts workforce from other regions of Romania. Vrsac as a region has the potential for industrial development, especially in IT, technology parks and so on, which provides employment opportunities for specific workforce types. On the other hand, a substantial number of people is commuting and working in major cities in the area at the same or greater distance from the region of Vrsac (Pancevo, Belgrade, Zrenjanin). There is a high level of youth unemployment in the region. But the increasing number of companies with high level of competitiveness at the cross border and the COVID-19 online working opportunities triggered the emergence of an impressive number of jobs in the digital marketing sphere.

The objective of the papers was to identify the needs of high school students from cross-border regions and create an extracurricular educational program DIGITAL U. These skills are extremely valuable in today's changing environment and the eye-tracking experience will help them engage in an innovative learning environment, where the practical part is real, where they can really feel the equipment and are invited to work together as creatively as possible. The new program will give students the confidence that they can attain whatever they set in their minds to do and will provide incentives for continuing their studies and working hard for a successful

career. The added value of the pilot program is given by the investments in new neuromarketing equipment (Eye tracking, brain imaging Electroencephalography, with adequate software for market research) and used in identifying the best teaching methods for the new generation of students and in the vocational training for youngsters. The usage of this type of neuromarketing equipment with a double focus on advancing educational teaching and research in Eastern Europe represents the main added value of the project, with a high regional impact in the long term. The approach we plan to take refers to vocational training in IT and digital marketing for high school youngsters ages 16-24 years, who do not have the incentives or possibility to continue their studies and need to find a job to maintain themselves. The cross-border approach is needed because the high schools from Timis-Vrsac counties have youngsters with dropout problems and financial problems and need help to find a job. In the project, each partner organizes activities that complement the activities of the other partners.

2. Methodology

2.1. Sample size

The quantitative data was acquired using a Kano questionnaire survey in the cross-border Timis-Vrsac region and the qualitative data was gathered acquired by semi-structured interviews with companies. This work extended the research by Pop et al. (2022), by using the Kano methodology to identify the characteristics of the new extracurricular program.

Before starting the quantitative surveys, the project team talked with five different companies from Romania and Serbia working in the marketing & PR (three companies) and IT operations and development (two companies) fields. Three of the questioned firms are in the Western part of Romania (namely Timiș and Caraș-Severin County), one is in Bucharest (but has expressed the desire to hire young employees who can work for them online) and one is from Serbia (South Banat district). When asked if they have job offers in their domain for youngsters without university studies, 80% of them responded positively and 20% considered this option. This

openness towards hiring youngsters without a degree but with adequate skills was particularly encouraging for writing the project. Nevertheless, we were eager to understand if university studies were necessary for a career in their field or if knowledge and skills were more important. Four of the five company representatives have been sure that knowledge and skills are far more important than university studies, and one considered both as important. However, his idea was that "university studies can be overlooked if the knowledge and skills are quantifiable". Their responses matched the current trends in the European Union and confirmed the studies from Romania and Serbia regarding the importance of skills for future employment opportunities. Four of the five companies emphasized the importance of digital skills matched with teamwork and self-management skills. Relevant information about the training needs of the two technical partner high schools has been collected: one from Timișoara and one from Vrsac. In line with this reasoning, one questionnaire has been constructed. The platform used was Google Forms and each questionnaire was sent to be completed online by the target group between January 2023 and April 2023 (Youngsters questionnaire link: https://docs.google.com/forms/d/e/1FAIpQLScvLxLhduZHsuIEuRTtt8inmAlC61LFFWXwI3utPqyD72zaoQ/viewform). Each questionnaire had closed personal, specialized, and Kano-type (with a functional and a dysfunctional form) questions. From their answers, we could determine relevant information regarding their country, age interval, sex, domain expertise, desire for lifelong learning and specifically the extension of knowledge and skills in the research area through doctoral studies. In the case of pupils, 80 youngsters have completed the online questionnaire. From the offered feedback, we obtained important information regarding their age, sex, high school domain, specific desired skills, and digital marketing training needs.

2.1. Student needs

In the present study, 80 youngsters have been involved. Of the whole group, 60% were male and 40% female. Regarding the age limits, we did not have respondents younger than 14 or over 19

years, the majority being between 15 and 16 years (45%) or between 17 and 18 years of age (55%).

Because we were interested in assessing the domain the high school students have a background in, the third question of the questionnaire focused on this aspect. Thus, the social sciences and economics domain prevailed with 45% of responses, the IT domain totaled 43%, the engineering field only 11% and one answer checked the other field. The need analysis helps the project manager in the design stage of the activities to understand what basic knowledge the respondents start the training with. High school students who learn about economics and social sciences have had at least one marketing class. Digital marketing skills would be a great added value for their training. IT students, even if focused more on the computer coding part, have the basic knowledge to understand digital marketing and a certain curiosity for interconnected disciplines. Nevertheless, this outcome determines a split in activities for the two main domains. The IT students will probably need more specific website analytics skills, instead, the social sciences students will like more entrepreneurial skills to complete their high school training.

The fourth question starts the specific project-related inquiries. Pupils are asked if they like the idea of taking digital marketing training for beginners, which can enhance their opportunities for a better job after graduation. As shown in Figure 1, 88% responded positively, 11% were not sure but were not excluding it and only 1% responded negatively.

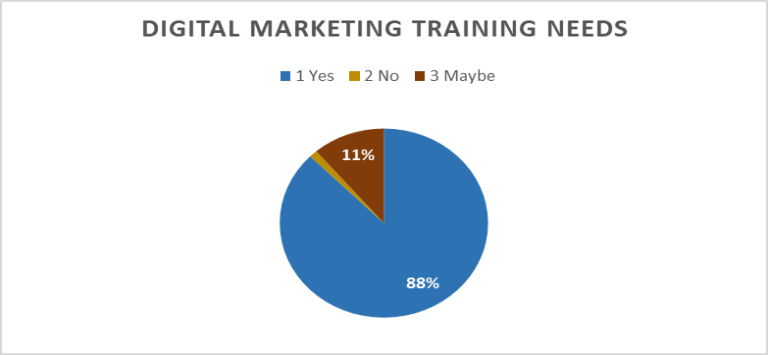

Figure 1. The student respondents' openness towards digital marketing training

When asked if they consider that the marketplace needs specialists in the digital marketing field, 84% responded affirmatively, 14% were not sure and only 2% did not agree with this statement. (**Figure 2**)

Figure 2. The respondents agreed upon the marketplace's need for digital marketing specialists

In the open question where the respondents were asked to write what they associate with the digital marketing field and what tools they think they will learn/develop in such training; we received a lot of different answers. Student needs and expectations are diverse. Some respondents probably from the IT field envisaged programming, web design, SEO, computer skills, online store creation, web traffic, internet ads, and social networks. But others (probably from the social sciences field) considered it useful to learn about market needs, customer communication, copywriting, Microsoft Office tools, product promotion, entrepreneurial information, teamwork, and critical thinking. Many specifically wrote that they expect to learn something new, useful, and amazing. Their answers motivate the project team to design innovative courses and practical new technology usage for these youngsters. Additionally, the need for new teaching methods arose. Students in this generation have different learning habits and teachers should determine what kind of approach best suits them. In the following section,

the main training needs have been assessed with Kano questions. **Table 1** will present the main results of the ten training needs we have proposed.

no.	Training needs student requirements	A	O	M	I	R	Q	Total	Kano category
1	Multicultural experience (visiting the neighboring region)	39	24	1	7	1	8	80	A
2	Workshops and experiments	19	26	10	14	5	6	80	O
3	SQL and Google Analytics	23	18	8	24	1	6	80	I-A
4	Adobe Illustrator online	17	24	6	25	2	6	80	I-O
5	Google/Facebook adds & Social media	13	27	11	19	2	8	80	O
6	WordPress, e-commerce & e-mail marketing	11	23	11	25	1	9	80	I-O
7	SAP (Systems Applications and Programs)	22	20	6	26	1	5	80	I-A
8	Bootcamp – additional information for career development	19	26	11	16	2	7	80	O
9	Jobs database platform & Bootcamp	18	21	8	26	0	7	80	I-O
10	Neuromarketing equipment use	17	21	6	24	4	8	80	I-O

Table 1. Training needs for youngsters

As we can see from **Table 1**, the multicultural experience is attractive for our young respondents, being a need covered by different trips to the neighboring country for learning and new experiences. They particularly expect workshops and experiments in their training through the project, as the second training need is O-one dimensional (expected, its performance triggers student satisfaction). Regarding the computer-based digital programs proposed like SQL, Google Analytics, Adobe Illustrator online, and SAP, the respondents are split into two groups: one that considers these programs A-attractive or O-one dimensional and the other group who is indifferent to learning them. Only Google/Facebook ads and social media are O-one dimensional but with high I – Indifferent answers as well. The same counts for WordPress, e-commerce, and

e-mail marketing training, which is I-indifferent for 25 of the respondents but O – one-dimensional for 23 of them. These results are somewhat expected due to the respondent's high school domains. The IT students are probably expecting computer-software training in the marketing domain, whereas the social sciences students prefer e-commerce, and emotional intelligence training (the boot camp with emotional intelligence and additional information for career development has been O- one dimensional for 26 respondents). Thus, the project should offer different courses and experiences for these two main groups and not force them to attend training that is not considered interesting or relevant for them. The job database platform and final boot camp as O-one dimensional for 21 of the students, A – attractive for 18 of them, whereas 26 are I – indifferent to it. This outcome is also due to not understanding the added value for their career of such a platform. The project should therefore communicate and determine awareness through university students for it. The use of neuromarketing equipment is expected by 21 of the students but indifferent for 24 of them. The young respondents expect something new but they probably do not understand what neuromarketing is all about and they are skeptical towards learning it. Again, an awareness campaign that focuses on explaining these particularities would probably determine a higher number of students being part of such an approach. Nevertheless, this result helps the project management team to design alternative courses and activities for both groups.

3. Results and Discussions

The research focuses on assessing the Z Generation's needs regarding digital marketing education. Regarding the youngsters, their openness towards digital marketing skills is particularly encouraging: 88% respond positively, 11% are not sure but are not excluding it and only 1% respond negatively. They considered as important to have the opportunity to receive formation in the digital marketing field: 84% of students argued that they see themselves working in such a field because the marketplace needs specialists in the digital marketing field,

14% were not sure and only 2% did not agree with this statement. The students have stated the following needs in the digital marketing field: forming specialists in the digital marketing field and the need for soft skills.

At the open question where the respondents were asked to write with what they associate the digital marketing field and what tools they think they will learn/develop in such training; we received a lot of different answers. Student needs and expectations are diverse. Some respondents probably from the IT field envisaged programming, web design, SEO, computer skills, online store creation, web traffic, internet ads, and social networks. But others (probably from the social sciences field) considered it useful to learn about market needs, customer communication, copywriting, Microsoft Office tools, product promotion, entrepreneurial information, teamwork, and critical thinking. Many specifically wrote that they expect to learn something new, useful, and amazing. Thus, the need for digital and soft skills is essential for them. The KANO survey showed that experimental studies (learning to use eye tracking) and assessing the voice of the pupil were considered attractive. In times that undergo seismic changes in consumer behavior, it is important to introduce in high schools' extracurricular programs in digital marketing. In line with Rhom et al. (2019) the new program will be based on Experiential Learning, Project-Based Learning, Skill Development Transdisciplinary Agile Teamwork.

4. Conclusions

Our findings from this research led us to create the "Digital U program" focusing on:

- 2 digital courses of 30 h/each for 2 months: "Web application development and social media communication"- 30 h and "Computer application development"- 30 h;
- Innovative marketing course of 50 h by using Eye tracking equipment.

The face-to-face activities proposed in the pilot program will provide valuable insights into a real neuromarketing lab for the students. The investments in infrastructure and neuromarketing equipment will be exploited during the four days for each group of 25 students. They will be able

to see and touch the equipment, but the pick of their neuromarketing experience will be a small group project done in mixed teams of four or five students from both high schools. They will be guided to select a specific eye-tracking use based on their hobbies, passions, or interests and plan an experiment during the first day of the face-to-face activities. With the eye-tracking expert, they will go through a real experiment on themselves, and their colleagues and they will be presented with the way results can be analysed during the second and third days. On the last day, each team will finalize their results and present them in the neuromarketing classroom. They will be able to use classroom laptops during the four days (8 h/day) and will be provided with guidance during this time. At the end of the four days of face-to-face activities, the students will develop eye tracking, presentation, multicultural, and teamwork skills.

Ultimately, combining the current needs of the labor market with equipment research can help change the curricula of high school students, highlighting experimental learning.

The paper presents several limitations: one consists of a small database of students from Serbia and Romania. Another limitation was the access to companies to identify the necessary skills for the available jobs for students (we obtained only five interviewees).

In future research, we will focus in targeting at least three high schools from each country. Moreover, future studies should refer to the perception of teachers regarding the employability competencies students need and ways to adapt the current curricula to the labor market needs.

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Education and Moral Values in a Multicultural World: Medical Students' Perspectives

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Abstract

The article explores the complexity of education and the profound significance of moral values in the development of young people's personalities and character, emphasizing the fundamental role of education in shaping society and promoting the good. It highlights the transition from cognitive to pragmatic values and their impact on education in the modern and postmodern eras. The article discusses the value crisis in the context of moral values and emphasizes the importance of moral education for navigating the complexities of a multicultural society, promoting universal moral values such as honesty, kindness, and tolerance. The results of a survey conducted among 120 students at the State University of Medicine and Pharmacy „Nicolae Testemițanu" reflect the recognition of the positive impact of moral values, but also a certain reluctance in accepting interethnic dialogue, thus illustrating the challenges and opportunities of moral education in a culturally diverse environment.

Keywords: Education, moral values, multicultural society, medical students.

JEL Classification: I12, I21, I23.

1.Introduction

Education is a complex art and not always easy to master. John Dewey asserted that education is not just a preparation for life, but is life itself. Through education, we have the power to shape and direct individuals, groups, and the entire society, changing the way people view life and transforming socio-cultural and political realities. Education allows us to discover new knowledge, experiences, patterns, and values. Its success closely depends on the values promoted, which not only guide individuals in society, but are also essential for understanding

the truth and promoting the good. In today's globalized world, the significance of value-based education and its effects on young people is a prominent topic of discussion within academic circles, particularly concerning the role of moral values in shaping both individuals and the broader society.

In this article, we will define the concepts of education and value, elucidate the impact of the axiological crisis of modernity on education, and analyze the issue of education for moral values in a multicultural context.

2. Literature Review

Historically, the concept of education has always captured the interest of scholars. Initially, education was the main subject of meditation for philosophers, who analyzed and interpreted it through the lens of time and their contemporary realities. (1) Plato was the first thinker from ancient Greek antiquity who tried to put his educational ideas into practice by establishing the first philosophy school in Athens, named the Academy. Through his writings, he laid the foundations of the philosophy of education, opening educational perspectives that would be followed by all the great philosophers of education (Scheau, 2014, 48). (2) The first major Christian thinker of the Medieval Period to address the issue of education was Clement of Alexandria, a proponent of „education through culture" introduced within the School of Alexandria. His ideas on education are presented in two fundamental works: in „Protrepticus", he urges pagans to abandon idol worship and convert to Christianity; in „The Instructor", he proposes replacing the term teacher with pedagogue, as in his view „God is the one who educates people, giving them a series of rules for moral conduct" (Scheau, 2014, 50). Augustine of Hippo, known historically as Saint Augustine, held the same belief. In his work „De Magistro", the philosopher concludes: „The only teacher is Christ, for he is the inner teacher who teaches us, while words are used by man to express his ideas externally" (Scheau, 2014, 68). (3) For the

modern era, the reflections on education by Jean Jacques Rousseau and Friedrich Nietzsche are important. The Swiss philosopher argued that although we are born free by nature, we are perpetually in chains; therefore, to ensure the perfection of man, education must begin as soon as the individual is born, through three methods: 1. by nature (which offers us an inner development of our faculties and organs); 2. by people (which offers us the acquisition of skills and habits); 3. by things (which offers us the acquisition of experience about objects) (Scheau, 2014, 116). According to Friedrich Nietzsche, a German existentialist philosopher, the purpose of education is to form individuals capable of creating new values (Aiftinică, 1994, 51). (4) In postmodernity, education is more concerned than ever with the value system, with reconciling the plurality of values with their universality, with hierarchies, especially with the processuality and the access of education subjects to value (Păun, 2017, 26). It is noteworthy that a characteristic of the era remains the tendency of individuals to distance themselves from cognitive values, adopting pragmatic ones instead.

Nowadays, we live in a globalized world and we are facing a crisis of national and universal values. In this context, being aware of and promoting the moral values specific to various cultures would help us better understand each other and avoid potential conflicts. Moreover, an education focused on and through values could contribute to mitigating the seemingly inevitable spiritual decline of humanity. This aspect deserves to be discussed in the specialized literature.

3. Values Supporting Education

Values and the development of human consciousness have always been central topics in Philosophy, with interpretations closely linked to the historical and social contexts of their times.

- For the ancient period, the reflections on values by Socrates, Plato, and Aristotle are memorable: (1) According to Socrates, good is a universal and eternal value, and the highest wisdom is to distinguish good from evil. In this context, we recall his

testament left to the younger generation: „The evil of misery and the evil of gold corrupt and embitter man alike. Since I believe in the change of man, how could I not believe in the change of the entire community? I do not know from which side to persist for success, but I know that everything will happen again only through man. I have been long alone against the hydra of evil, now you are many... Receive from me, you young people, my knowledge gained at the end of my life. And start from my last knowledge to a new knowledge. Just as the world has changed before us, so it will change after us. But for this, a single pair of hands and one brain is not enough. And you be those who will carve the path of change for the world towards the better" (Socrates). (2) The supreme purpose of all Plato's thought was the promotion of values such as goodness, beauty, justice, and the harmony of the non-contradictory, specifically, a single principle of value, in which all these aspects are given. Regarding the significance of moral values in the ideal state envisioned by Plato, all virtues are alive: wisdom, courage, temperance, and justice (Plato, 2001, 23). (3) In Aristotle's view, the disciple of Plato, every art and every investigation seems to aim at a certain good, so it is rightly asserted that the good is what all things aspire to. Goodness is associated with happiness, which grants a state of pleasure to individuals. To achieve this happiness, one's life must align with virtues (Scheau, 2014, 33). For Aristotle, the morally upright and virtuous individual possesses the capacity to perceive moral virtues such as goodness, justice, freedom, responsibility, and temperance, to know them, without seeking to intuit them from a higher principle (Buzatu, 2014, 8).

- The values of antiquity are forgotten in the Medieval Era, the new spiritual values deriving from the concepts of Respublica Christiana, Christianitas, Ecclesia. All medieval political thought relied on the idea of Christianity, from which arose

aspirations towards the unity of people under a single leader: the emperor in the temporal space, the pontiff in the spiritual one (Nistor, 2012, 8).

- Beginning with the Renaissance, we witness gradual changes in the individual's way of thinking, as they learn to value life, status, and the role they hold in society. The principle of individualism gradually replaces collectivism, changing people's attitudes towards life, imbuing it with meaning and value. The Renaissance individual will strive for a rich spiritual life, perfection, respect, dignity, and independence. However, according to René Guénon, „far from constituting a recovery, the Renaissance and the Reformation mark a much deeper decline, sealing the definitive rupture from the traditional spirit, both in the realms of science and the arts, as well as in the religious domain" (Guénon, 1993, 45) In the 19th century, studies and theories about the world of values continued to be developed, laying the foundations for a new specialized discipline - axiology. The most important contributions were made by the German philosophers Hermann Lotze and Friedrich Nietzsche, as well as the Neo-Kantian School of Baden, represented by Wilhelm Windelband and Heinrich Rickert (Calugher, 18). According to the promoters of the new discipline: (1) „Value is what is considered true, and the principle of normativity is utility" (Friedrich Nietzsche); (2) „Values are eternal and absolute principles, independent of both the real world and human subjectivity, forming an a priori universe" (Wilhelm Windelband); (3) „Values are a universe in themselves, transcendent to any object or subject and constitute the foundation of objective reality" (Heinrich Rickert). Currently, we are witnessing the axiological crisis of modernity, which, according to UNESCO experts, points to intellectual decentralization, the refuge of some philosophers in horizons of reflection devoid of axiological significance, and the silence of others is because they do not understand and do not sense the tumultuous time in which they live, failing to grasp the essence of the era they are going through (Bețivu, 2021, 49).

Therefore, education is closely linked to the knowledge and promotion of values, which represent the essential and enduring pillars of any society, having a profound impact on human life and behavior. Throughout history, each society has developed its own educational system, centered on a set of relatively stable fundamental values, which have defined its identity and purpose in relation to other ethnic groups, races, cultures, or denominations.

4. Promoting moral values in a multicultural environment

Moral values play a crucial role both for individuals and society, shaping people's character and influencing their behavior, encouraging honesty, goodwill, dignity, and responsibility. These values are deeply linked to the fundamental, universal, and innate emotions of human beings, as well as to the experiences accumulated throughout life. Based on common values, each person defines their own set of norms and rules of behavior, which are in harmony with the moral ideals of the society in which they live and are educated.

Currently, discussions about a crisis of moral values in a multicultural context are becoming more frequent. Each culture is based on a unique system of values, which may seem foreign or even inconceivable to members of other cultures. However, essential moral values such as kindness, honesty, generosity, dedication, respect, tolerance, compassion, forgiveness, and modesty are recognized and cultivated in all cultures. These universal values can guide young people in navigating the complexities of a multicultural society, helping them to achieve a respectable social role and status, overcome cultural differences, ignore stereotypes and prejudices, and oppose disrespect and violence. Fundamental moral values, present in all cultures, are vital for supporting moral education in a multicultural environment.

In this framework, moral education is a process of transmitting values aimed at shaping the character and personality of young people in accordance with the moral ideals of society. Education based on moral values facilitates the understanding and acceptance of a diversity of

values, beliefs, and convictions, and influences individuals' perceptions of other ethnic groups. It also contributes to the adoption of behavior appropriate to different cultural environments. In an intercultural and multicultural context, moral education must be oriented towards developing young people's awareness of belonging to a common multicultural environment, thereby overcoming differences and emphasizing the importance of similarities. This is achieved through a complex ensemble of educational activities and modern teaching techniques, which are essential for shaping the moral profile of the personality.

In a multicultural context, the objectives of moral education focus on developing moral consciousness, which includes both cognitive and affective aspects, and on forming appropriate moral behavior. It is crucial not only to familiarize young people with the variety of value systems but also to facilitate their understanding of the differences and similarities between them, as well as the acceptance of new and unfamiliar elements. The moral behaviors adopted must respect the specific norms and rules of multicultural communities.

The content of moral education in a multicultural context should focus on the dynamics between individual and another individual, individual and group, and individual and society. It is essential for young people to understand that the principle of unity in diversity offers them the opportunity not only to acquire new knowledge, habits, and behaviors but also to share their own values, thus creating harmonious relationships with others. The promotion of universal moral values and achieving a desired balance in family, group, and society can be effectively accomplished through dialogue.

The role of the educator in a multicultural society is to recognize and raise awareness among young people about the unity and diversity of moral values. They must cultivate in young people skills and habits of moral behavior appropriate to the cultural context, to guide, support, and direct them towards correct and effective moral actions, essential for successful sociocultural integration. Young people, who are in constant comparison with others, strive to adapt to novelties and understand the unknown, identifying similarities and differences, evaluating the

moral impact of their actions, and maintaining consistent moral behavior in multicultural situations.

In a multicultural society that aspires to interculturality, it is essential to overcome ethnocentric and xenocentric attitudes, promoting cultural relativism instead. This encourages young people to view positively, appreciate, and tolerate ethnic, linguistic, and cultural diversity, which are inevitable aspects in today's world. To avoid communication barriers, it is vital to promote universal moral values such as kindness, philanthropy, honesty, dedication, respect, cooperation, compassion, forgiveness, and altruism. At the same time, we must develop intercultural communication skills, which include awareness, sensitivity, and behavior appropriate to the intercultural context. Typically, individuals with intercultural competencies do not exhibit ethnocentric or xenocentric tendencies but are open to communication and easily adapt to new people, places, and situations.

5. Methodology

Considering previous discussions, we aimed to explore the attitudes of young non-medical students of various nationalities towards the influence of moral values on personal development and the necessity of promoting these in the educational process. To achieve this goal, we established the following objectives: to analyze the impact of moral values on students' personal development and their integration into the educational process; to evaluate the contribution of moral value-based education in uniting young people from diverse cultures; to determine the influence of individual perceptions of ethnocentrism on intercultural interactions; and to investigate whether ethnocentrism is a barrier in promoting moral values. The method used for this study was a survey conducted from February to March 2024. It involved a total of 120 students from the General Medicine Department at the Nicolae Testemițanu State University of Medicine and Pharmacy. Participants were equally divided, including 40 Romanian students (25

girls, 15 boys), 40 Russian students (30 girls, 10 boys), and 40 Indian students (26 girls, 14 boys) , all aged between 20 and 24 years. The printed questionnaires were personally distributed. They included four questions: 1. Can moral values influence young people's personal development and their integration into education? 2. Can moral value-based education unite young people from different cultures? 3. Are you someone who views your own culture as the centre of the world? 4. Is ethnocentrism a barrier to intercultural communication? To calculate and interpret the survey results, we used descriptive statistics, presented in a table.

Categories of respondents *Medical students*	*Can moral values impact students' personal development and their integration into education? (%)*	*Can moral value-based education unite young people from different cultures? (%)*	*Do you consider yourself an ethnocentric person? (%)*	*Can ethnocentrism be a barrier in promoting moral values? (%)*
Russian	85	95	75	75
Indian	98	95	55	55
Romanian	75	90	70	60

Table 1

6. Results and Discussions

The survey results indicate that the majority of respondents recognize a positive impact of moral values on students' personal development and support their integration into education (Romanian medical students - 75%, Indian - 98%, Russian - 85%). Additionally, the majority of medical students agree that education based on moral values could unite young people from different cultures (Romanian medical students - 90%, Indian - 95%, Russian - 95%). Regarding ethnocentrism, Russian and Romanian students appear to be less ethnocentric compared to their Indian counterparts (Romanian medical students - 70%, Indian - 55%, Russian - 75%); moreover, the majority of respondents, regardless of nationality, recognize that ethnocentrism

can become a barrier in promoting moral values (Romanian medical students - 60%, Indian - 55%, Russian - 75%).

Therefore, moral education in a multicultural context is a process of transmitting moral values, aimed at shaping the character and personality of young people according to the moral ideals of a multicultural society. Education focused on moral values can facilitate the coming together of young people from different cultures, overcoming ethnocentric barriers and stimulating changes in thought and action. Moral values such as goodness, responsibility, justice, humanity, love, and common sense can create opportunities for establishing a constructive and profound dialogue between members of different cultures and denominations.

7. Conclusions

The article „Education and Moral Values in a Multicultural World: Medical Students' Perspectives" explores the complexity of moral education in the context of increasing global interconnectedness and cultural diversity. Through a historical and philosophical analysis, as well as a specific case study on medical students, the article highlights the importance and impact of moral values-based education in both the professional and personal development of future physicians. (1) The importance of moral values in education is undeniable, and the multicultural context of the modern world adds an additional layer of complexity. Moral values not only guide individual behavior but also provide a framework for respectful and effective intercultural interaction. (2) The study clearly shows that students recognize the role of moral values in their personal and professional development. It also highlights that education promoting moral values can contribute to the unity among young people from different cultural backgrounds, fostering tolerance and intercultural understanding. (3) Ethnocentrism, often identified as a barrier in intercultural communication and collaboration, is acknowledged by students as an impediment to the effective promotion of moral values. This underscores the need for educational strategies that combat prejudice and cultivate an openness to cultural diversity.

(4) Education based on moral values is essential not only for training competent professionals but also for developing responsible global citizens who can navigate and appreciate the cultural diversity of the contemporary world. The role of educators is crucial in shaping this framework, by promoting open dialogue and encouraging mutual respect and understanding.

In conclusion, integrating moral values into the educational curriculum of future physicians is vital not just for professional training but also for cultivating a global consciousness. Such education not only prepares students for professional challenges but also equips them to be ethical and empathetic leaders in the increasingly interconnected multicultural society of the 21st century. This approach not only meets the immediate needs of medical education but also contributes to a broader foundation for peace and global understanding.

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Education in the Age of Artificial Intelligence

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Abstract

The aim of this research paper is to present how education is impacted by the development of new technologies, especially artificial intelligence. Because of its capacity to generate content based on prior experiences, artificial intelligence has immense impact and potential. The educational system has to adapt to the changing needs of society by incorporating new technologies into the lessons taught. Artificial intelligence has the ability to improve learning for students in a number of ways, one of which is by giving teachers precise feedback and by offering students with learning experiences that are tailored and adaptable. Artificial intelligence can be used to boost student engagement and motivation, which may be used to inspire students to take responsibility for their education and to be committed to achieving academic success. Also, students need to acquire the abilities employers will be looking for in the workers of tomorrow in an increasingly algorithmic and digital environment. Many companies already employ artificial intelligence for tasks such as writing product descriptions, developing customized products, customer support, and targeted, tailored content for their consumers. The

education system will have to teach students to co-create together with artificial intelligence as it becomes more integrated into business, products, and services.

Keywords: artificial intelligence; education 0.5; augmented intelligence; future of work, AI ethic
JEL Classification: L86, M15, O30, I29

1. Introduction

As technology advances at a rapid pace, the educational system must prepare students to become lifelong learners. One technology that has advanced exponentially in the last few years is artificial intelligence (AI), which will also have the most impact on society in the years to come. AI is the technology that has the ability to learn from past experiences, adapt over time, and generate solutions for different problems (Akerkar, 2019). Compared to humans, an AI system can work easily through large quantities of data using mathematical rules. According to Kreutzer and Sirrenberg (2020), AI comes in two forms: "weak AI," which is able to execute simple tasks like predicting customer behavior, and "strong AI," where the algorithm understands what is happening and has the ability to reason. Artificial intelligence is designed to work like the human brain, and different algorithms have the ability to learn from large quantities of labeled and unlabeled data and also iterate through trial and error to discover the optimal solution when the system has no prior data or solution offered (Kreutzer and Sirrenberg, 2020). Given the large quantities of digital data that are available on the Internet and in data centers, AI has the ability to learn from this data and produce new creative content. These can already be seen with the development of OpenAI algorithms that are able to generate content similar to human creativity. The OpenAI algorithms are able to generate creative content like pictures, design objects, compose music, and text (Ramesh et al., 2021, Chen, Radford, and Sutskever, 2020, Dhariwal, et al., 2020, Voss, et al., 2020, Brown, et, al., 2020, Payne, 2019). In the update of May 13, 2024, OpenAI launched GPT-4o, which is an AI modal that can work as an assistant. GPT-4o is able to

accept any input like text, audio, image, or video, and generate content or answer questions based on the input received (OpenAI, 2024). OpenAI has one of the most advanced artificial intelligence systems on the market, and there are already a lot of companies like Alphabet Inc. (Google), Meta, Anthropic PBC, and many more that have joined the AI race. This is why the race for artificial general intelligence (AGI) is very competitive. The education system must take into consideration this technological advancement and innovation and prepare the students for the future of work or to become future business owners. Students must learn how to work with these technologies in collaboration with other students in order to solve different problems or challenges. In the future, humans will become lifelong learners and will have to collaborate efficiently with an AI assistant in order to solve problems or co-create new content. The school system must adapt and prepare students for this future.

2. Literature Review

Artificial intelligence in education has the potential to revolutionize several elements of education via the provision of tailored learning experiences, automation of administrative duties, and facilitation of decision-making based on data analysis. Individualized learning is the use of AI algorithms to tailor instructional material and delivery to cater to individual requirements and preferences. This includes intelligent tutoring systems that provide individualized feedback and recommend suitable learning resources. (Kaswan, Dhatterwal, and Ojha, 2024) Intelligent assessment technologies streamline the grading and feedback procedures by automating them, thereby allowing instructors to save time and get instant feedback. According to Kaswan et al. (2024), virtual assistants and chatbots provide immediate assistance to students by responding to inquiries and providing guidance when navigating educational resources. Adaptive learning systems use artificial intelligence algorithms to assess student data and provide tailored learning routes, enhancing learning experiences and fostering individual proficiency in ideas (Kaswan et al., 2024). AI-driven language learning tools provide individualized training, feedback on

pronunciation, and practice activities, effectively overcoming language obstacles and enhancing communication in multilingual environments. AI technology may aid in the development of instructional content, including interactive simulations, virtual reality experiences, and multimedia resources. (Kaswan et al., 2024)

According to Shah (2023) professors have expressed concerns about the unethical use of AI, resulting in a backlash. In order to prepare the students for the future of work it is important to teach students about the ethical and responsible application of AI. Students need to use AI technologies to enhance their cognitive processes and learning processes, rather than relying on them as a substitute (Shah, 2023). Students must learn the limitations of AI technology and recognize the areas where input from humans is required. This will enable students to see artificial intelligence as a tool for acquiring new knowledge and advance their learning ability (Shah, 2023).

Shah (2023) describes that students must exercise responsible use of AI both within and outside the school. This is because digital citizenship will gain greater significance as online civic discourse and activities continue to grow. It is essential for students to acquire AI literacy in order to successfully navigate a world that is increasingly driven by AI. This includes lobbying for fair norms and regulations, opposing unethical AI platforms, and recognizing biases in algorithms (Shah, 2023).

According to Shah (2023), teachers should promote critical thinking among students when dealing with AI-generated output, encouraging them to actively analyze and identify areas that may be improved and to work together with their peers to make their job more efficient. Students should reflect on the impact of their questions and prompts and the AI's output. They should seek feedback and make comparisons between AI output and human output in order to discern the strengths and flaws (Shah, 2023). By engaging in this practice, students may get a more comprehensive understanding of the constraints of artificial intelligence and actively strive to enhance their educational experiences (Shah,2023)

Misinformation and bias associated with AI present substantial ethical dilemmas for society. The ability of malicious actors to disseminate false information and manipulate individuals can become a social threat. In addition to facilitating discussions on misinformation, problematic biases, and the implications of AI, educators should provide examples in order for the students to examine authentic instances of misinformation and develop a discerning stance towards unverified data Shah (2023).

According to Mollick (2024) the paradox of knowledge acquisition in the era of AI lies in the fact that while AI is very proficient at retaining and constructing basic knowledge, the need for fundamental abilities still persists.

According to Mollick (2024), subject knowledge is necessary to engage in critical thinking, problem-solving, comprehend abstract ideas, reasoning through challenges, in order to be able to evaluate the output generated by an artificial intelligence system. Professionals in the fields of education, architecture, and medicine have the ability to assess syllabuses, quizzes, and architectural designs that are created by artificial intelligence. This involves including skilled people in the decision-making process to guarantee the effectiveness of labour helped by artificial intelligence Mollick(2024).

3. Education 5.0

According to Ghosh (2024), Education 5.0 prioritizes the development of students by using strategic, methodological, and pedagogical methods. In Education 5.0 the objective is to restore motivation, foster creativity, and create passion for learning in students. The achievement of this objective is made possible by digital equipment, infrastructure, and platforms. According to Ghosh (2024), technology may be used well or incorrectly, and converting obsolete material and inefficient methods into digital format is not a viable option. Traditional methods may become less successful when converted into digital format, hence it is essential to use technology

appropriately (Ghosh, 2024).

According to Babu (2024), a paradigm change happened in education brought about by technology and globalization. Education 5.0 expands upon the attention of earlier generations on digital learning, mass education, individualized learning, and knowledge acquisition. Education 5.0 implements the following components: values-based education, critical thinking, problem-solving, creativity, experiential learning, and teamwork (Babu, 2024). The main focus is on continuous learning using customized and adaptable learning technology, promoting a sense of global belonging and appreciation for many cultures. This transition has the capacity to revolutionize education and enable individuals to achieve their maximum capabilities (Babu, 2024). According to Babu (2024), Education 5.0 has the following key features personalization, collaboration, technology, experimental learning, and globalization.

Personalization

Education 5.0 emphasizes customization since each student has unique learning preferences. Personalization of learning is enabled by technical breakthroughs such as artificial intelligence which allow instructors to tailor the content, pace, and teaching technique to each student. With the help of personalized evaluations, flexible scheduling, and customized learning students can better understand different subjects and class materials. Students can study at their own pace utilizing a variety of learning methods and are given personal feedback according to their performance (Babu, 2024).

Collaboration

According to Babu, (2024), collaboration is another key feature of Education 5.0 because it encourages students to solve problems by working in teams. Teamwork can help students brainstorm faster and come up with innovative solutions when completing tasks. Professors should encourage students to use teamwork or ask other students from schools across the world to join in a virtual collaboration this can help students to learn from each other (Babu, 2024). This type of interaction enables students to develop communication and leadership skills and

learn to take responsibility for the solution, development, and implementation. Interactions will become more important especially for the well-being of humans because, in a more digital world, students must learn to use technology and work in collaboration with other students.

Technology

As part of Education 5.0, digital tools are being used to design personalized cooperative and experiential learning experiences. It offers educational resources, including courses and information, through digital learning environments and mobile apps. Virtual and augmented reality provide for more engaging and participatory educational experiences, such as virtual field trips (Babu, 2024). Virtual Reality (VR) is a technology that totally immerses the user in a virtual environment using a digital headset and allows them to interact with digital material (Lavingia & Tanwar, 2020; Azuma, 1997). Augmented Reality (AR) is a technology that allows users to layer digital material over the actual environment using a mobile device or headgear (Lavingia and Tanwar, 2020; Azuma, 1997). When using augmented reality, the user will remain connected to the actual world rather than entirely immersed in a virtual environment. These two technologies, together with AI, will provide a more customized learning experience suited to each student's requirements and learning abilities. Artificial intelligence (AI) is used to create personalized and adaptable learning experiences by analyzing learner data and making individualized suggestions. Cloud computing provides students with access to a diverse range of educational materials, including online databases, instructional videos, and digital textbooks. Social media is being used to facilitate student-teacher collaboration and communication. It does this through peer-to-peer mentoring, group projects, and online debates (Babu, 2024).

Experiential learning

According to Babu (2024), internships, service learning, and simulations allow students to apply their knowledge in real-world contexts and enhance their practical skills. Internships and apprenticeships play a significant role in Education 5.0's experiential learning philosophy. Through these programs, students may develop professional skills, solve real-world problems,

and apply what they've learned in the classroom to real-world situations. Service learning encourages students to address real-world concerns and contribute positively to their communities. Project-based learning encourages students to improve their critical thinking, problem-solving, and collaboration skills by working on real-world projects that are relevant to their interests and career objectives (Babu, 2024).

Globalization

Multicultural education provides students with a full understanding of many languages, cultures, and perspectives. Learning a language is recommended in order to develop the skills necessary for effective communication in a global context (Babu, 2024). International study programs allow students to widen their views, gain new perspectives, and develop their global skills. This means that academic institutions and other groups can work together on projects like research, developing curricula, and student exchange programs. Virtual classrooms connect students from all over the world with teachers and other students in the same class to encourage them to work together. Babu (2024) claims that by uniting individuals, Education 5.0 enhances the enjoyment and fulfilment of lifelong learning. The need for students to be able to direct and motivate their own learning is one of the challenges they encounter. Another important thing is that they can learn in different ways.

4. Results and Discussions

Lifelong learning is the process of acquiring knowledge and skills from infancy to old age. This refers to the practice of continuously obtaining new information and abilities. Diverse contexts, such as the workplace, travel, hobbies, and personal interests, may witness its manifestation, surpassing the confines of formal education (Babu, 2024). According to Hurwitz Morris, Sidner, and Kirsch (2020a), the future belongs to augmented intelligence, meaning that it is important for humans to use artificial intelligence in their work and collaborate with these systems. Businesses will be able to fully automate their work with the help of AI and other technologies, but they will

also use AI in collaboration with humans to enhance their capabilities (Huhwitz et al., 2020a). Even jobs that were considered safe, like programmers and doctors, or even creative jobs, like designers and writers, are no longer safe (Roose, 2021a). The education system must adopt and integrate new technologies into its curriculum. According to Roose (2021b), in the future, jobs will be divided into “machine-as-assisted” jobs which refers to improving the autonomy of workers with the help of machines. This is a type of human-centered automation. And "machine-managed” jobs where the human workers are the gap fillers, and this is where the human worker is assisting the machine by doing tasks the machine is not able to do (Roose, 2021b). Given the advances in technology, humanity will enter the age of human-made in the age of AI (Gruia, Bibu, and Roja, 2020). Human-made in the age of AI will be like hand-made products; they will have a greater value compared with the products generated by an artificial intelligence system. There will be businesses and entrepreneurs that will prefer to use a human approach and not use AI in their businesses. The products and creative content made without AI will have a greater value on the market. A good example is the creation of hand-made products that have a greater value compared to factory-made mass-production products. In agriculture, mass production of vegetables and meat with the help of different chemicals has a lower value compared with home-grown vegetables or meat. Given this, it can be assumed that the expenses to create content generated by AI will decrease, but the value of an item or object created with AI will also decrease. But for businesses and entrepreneurs, this opens the door for the mass market. This is given by the ability to sell products, services, and creative content at scale and globally. Also, businesses that offer services like plumbing or maintenance and repair of electrical infrastructure will use platforms that have AI recommendation systems to find more work and promote their business. Taking this into consideration education must prepare students for lifelong learning in order to compete in the dynamic and competitive job market and be able to find new jobs or financial opportunities. Students who learn to use AI will not only have

successful jobs but will also become successful entrepreneurs who understand the capabilities of AI.

5. Conclusions

Since education is one of the most important stages in a human's life and extends from childhood until adulthood, it has the responsibility to prepare the human to become a lifelong learner. It is important for humans to learn and adapt new innovations in order to keep pace with societal development and requirements. Education 5.0 has the ability to prepare humans for a more digital society with the help of features like personalization, collaboration, technology, experimental learning, and globalization. As businesses and organizations are already adopting technology and innovations to automate different tasks or processes, this will require employees to change job roles and learn new skills that have not been automated by machines. The development of digital tools has enabled humans to become entrepreneurs and own different online businesses and assets. One such business is e-commerce which has evolved a lot do to the development of digital tools. With the help of AI and e-commerce business owners can create new content for their products and also use platforms such as Meta or Tiktok to advertise the products and deliver the products across the world. In the future, more such digital businesses will emerge that use AI as an assistant and enable business owners to run a business with no employees. We believe that the education system has the responsibility to help students develop the necessary skills to thrive in an algorithmic world. Also, education must make students aware that algorithms can manipulate people's preferences toward a product or person which can be very dangerous and contribute to a polarized society. People must develop critical thinking skills with a good set of moral values with the aim of seeking the truth and be able to analyze if they are misled by an AI system. Critical thinking will be an important skill to differentiate if a news

is fake or not, especially because the algorithms are able to push in front information that is the most accessed by people. As AI will gain more access to people's private lives and know all their preferences and likes it will push more information according to a person's preferences, but also manipulate a person into liking a certain product, idea, or person. Given these arguments as a reason to why humans must become lifelong learners, and why the educational system must prepare students for an uncertain future where people can be manipulated by AI and repetitive tasks will become fully automated by technology. Collaboration and networking are indeed important human skills that are not easily replicated by machines, but the release of the OpenAI GPT-4o demo has already demonstrated the capability of AI to collaborate with another AI on a different device and ask questions about a certain subject. Surely and slowly, machines will simulate human behavior, and in our opinion, humans will accept them as part of their daily lives, just like pets and mobile devices. For now, the closest pet humans have that is also able to learn how to talk is a parrot. Parrots have the ability to mimic human talking. Because of this, humans tend to get attached to parrots and think of them as family. Now it is easy to imagine the impact AI can have on a human life, especially when it starts to mimic feelings just like a human. Given the huge impact of AI on humans and society, education has become important and must adapt in order to prepare students for the digital world of tomorrow.

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Exploring Current Trends in Education: A Comprehensive Review of Original Works

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Abstract

In the ever-evolving realm of education, staying attuned to current trends is imperative for stakeholders to navigate the complexities of modern pedagogy effectively. This article aims to present a comprehensive review of original works that delve into the latest developments in education. Through an analysis of recent literature and empirical research findings, it illuminates key trends shaping educational practices, policies, and discourse. From the integration of technology to the promotion of diversity and inclusion, and the challenges posed by remote learning, this abstract synthesizes diverse perspectives to offer a nuanced understanding of contemporary educational paradigms. By examining the implications of these trends on teaching, learning, and educational outcomes, this abstract aims to inform educators, policymakers, and researchers seeking to innovate and adapt in response to the evolving needs of learners in the 21st century.

Keywords: education, trends, development, diversity

JEL Classification: I20

1. Introduction

The landscape of education is continuously evolving, influenced by technological advancements, shifting societal needs, and emerging pedagogical theories. "Exploring Current Trends in Education: A Comprehensive Review of Original Works" aims to provide an in-depth analysis of the most significant developments shaping contemporary education. This review synthesizes original research, case studies, and theoretical contributions to offer a holistic view of current educational practices and innovations.

In recent years, education has undergone transformative changes, driven by the integration of digital technologies, the emphasis on personalized learning, and the increasing recognition of socio-emotional skills. The rise of online learning platforms, the implementation of data analytics in educational assessments, and the growing focus on inclusivity and diversity reflect a dynamic field responding to both opportunities and challenges. Additionally, the global COVID-19 pandemic has accelerated the adoption of remote learning and highlighted the digital divide, prompting educators and policymakers to rethink traditional educational models.

This comprehensive review addresses several critical areas: the impact of technology on teaching and learning, innovative instructional strategies, the role of educators in a changing environment, and the implications of educational policy reforms. By examining original works from diverse perspectives, this review seeks to identify key trends and offer insights into the future direction of education.

Through this exploration, we aim to provide educators, researchers, and policymakers with a valuable resource that encapsulates the current state of education and inspires ongoing dialogue and innovation in the field.

2. Literature Review

Technological Integration in Education

The integration of technology in education has been a predominant trend over the past decade, reshaping how knowledge is delivered and consumed. Research by Selwyn (2016) highlights the transformative potential of digital tools in fostering interactive and engaging learning environments. The proliferation of e-learning platforms, such as Khan Academy and Coursera, has democratized access to education, enabling self-paced learning and broadening the scope of educational opportunities (Anderson, 2019). However, the digital divide remains a significant challenge, with disparities in access to technology and the internet exacerbating educational inequalities (Van Dijk, 2020).

Personalized Learning

Personalized learning, driven by data analytics and artificial intelligence, is another significant trend. According to Pane et al. (2017), adaptive learning technologies tailor educational content to individual students' needs, promoting more effective and efficient learning experiences. This approach shifts the traditional one-size-fits-all model towards a more customized educational framework, addressing diverse learning styles and paces. Original works by Knewton (2018) and other educational technology companies demonstrate the practical applications and benefits of these innovations in real-world classroom settings.

Socio-Emotional Learning and Inclusivity

The focus on socio-emotional learning (SEL) has gained prominence, recognizing the importance of emotional intelligence and social skills in student development. Durlak et al. (2011) found that SEL programs significantly improve students' academic performance, behavior, and emotional well-being. Concurrently, the push for inclusivity in education aims to create more equitable learning environments. Works by Hehir et al. (2016) explore strategies for implementing inclusive practices that accommodate students with diverse backgrounds and abilities, ensuring that all learners have the opportunity to succeed.

Impact of COVID-19 on Education

The COVID-19 pandemic has profoundly impacted education systems worldwide, accelerating the adoption of remote learning and exposing systemic vulnerabilities. Research by Reimers and Schleicher (2020) examines how educational institutions adapted to the crisis, highlighting innovative approaches and persistent challenges. The pandemic underscored the need for resilient education systems capable of withstanding such disruptions, prompting a re-evaluation of traditional educational paradigms (Zhao, 2020).

Innovative Instructional Strategies

Innovative instructional strategies, such as project-based learning (PBL) and flipped classrooms, are gaining traction as effective pedagogical approaches. Larmer, Mergendoller, and Boss (2015) argue that PBL enhances critical thinking and problem-solving skills by engaging students in real-world projects. The flipped classroom model, as discussed by Bergmann and Sams (2012), inverts traditional teaching methods by delivering instructional content online, allowing for more interactive and hands-on activities during class time.

Role of Educators

The evolving educational landscape has redefined the role of educators, who are now seen as facilitators of learning rather than mere transmitters of knowledge. Research by Darling-Hammond et al. (2017) emphasizes the importance of professional development and continuous learning for teachers to effectively navigate new educational technologies and methodologies. Furthermore, teachers' roles in fostering a supportive and inclusive classroom environment are critical to student success (Gay, 2018).

Educational Policy Reforms

Educational policy reforms are crucial in shaping the future of education. Policies that support technological integration, personalized learning, and inclusivity are essential for fostering an innovative and equitable education system. The works of Fullan and Quinn (2016) highlight the importance of coherent policy frameworks that align with contemporary educational needs and

practices. Additionally, policy reforms addressing the digital divide and ensuring access to quality education for all students are imperative for achieving educational equity (Means et al., 2014).

3. Methodology

Research Design

This comprehensive review employs a qualitative research design, utilizing a systematic literature review methodology to explore current trends in education. The aim is to synthesize findings from original works to provide a thorough understanding of contemporary educational practices and innovations. This methodology ensures a rigorous and structured approach to identifying, analyzing, and interpreting relevant literature.

Data Collection

The data collection process involved a multi-step approach to ensure a broad and representative sample of original works in the field of education. The steps included:

- Database Selection: Relevant academic databases such as JSTOR, ERIC, Google Scholar, and Education Research Complete were selected for the literature search. These databases were chosen for their comprehensive coverage of educational research and peer-reviewed publications.
- Search Strategy: A systematic search was conducted using keywords related to current educational trends, including "technological integration in education," "personalized learning," "socio-emotional learning," "remote learning," "innovative instructional strategies," and "educational policy reforms." Boolean operators (AND, OR) and filters (publication date, peer-reviewed journals) were applied to refine the search results.
- Inclusion and Exclusion Criteria: The inclusion criteria were original research articles, case studies, theoretical papers, and policy reports published within the last decade (2013-2023).

Exclusion criteria included non-peer-reviewed articles, opinion pieces, and works published before 2013 unless they were seminal works highly cited in subsequent literature.

- Screening and Selection: The initial search yielded a large number of articles. Titles and abstracts were screened for relevance, followed by a full-text review of selected articles. The final sample included studies that directly addressed current trends in education and contributed to the themes identified in the review.

Data Analysis

The data analysis involved thematic analysis to identify and synthesize key trends and themes within the selected literature. The process included:

- Coding: Each selected article was read thoroughly, and relevant data were extracted and coded. Coding categories were developed inductively based on recurring themes and concepts identified during the initial reading.

- Thematic Synthesis: The coded data were organized into broader themes that represent significant trends in education. These themes included technological integration, personalized learning, socio-emotional learning, the impact of COVID-19 on education, innovative instructional strategies, the evolving role of educators, and educational policy reforms.

- Validation: To ensure the validity and reliability of the findings, a second reviewer independently coded a sample of the articles. Discrepancies were discussed and resolved, and the coding scheme was refined accordingly.

Ethical Considerations

Ethical considerations in this review included ensuring the accurate representation of the original works and respecting intellectual property rights. Proper citations and references were used to acknowledge the contributions of the original authors. Additionally, the review focused on publicly accessible and published literature, avoiding any potential ethical issues related to unpublished or proprietary data.

Limitations

While this methodology provides a comprehensive overview of current trends in education, it has certain limitations. The reliance on published literature may introduce publication bias, as studies with significant findings are more likely to be published. Additionally, the focus on recent literature may overlook valuable insights from older works. Despite these limitations, the systematic approach ensures a robust and credible synthesis of the most relevant and current trends in education.

Conclusion

This methodology outlines a systematic approach to reviewing and synthesizing original works on current trends in education. Through rigorous data collection and thematic analysis, this comprehensive review aims to provide valuable insights into the evolving educational landscape, benefiting educators, researchers, and policymakers.

4. Results and Discussions

Technological Integration in Education

The review reveals that technological integration remains a cornerstone of modern educational practices. Numerous studies highlight the transformative impact of digital tools on teaching and learning. For instance, Selwyn (2016) emphasizes the potential of technology to create interactive and engaging learning environments, while Anderson (2019) showcases how platforms like Khan Academy and Coursera have democratized access to education. However, the persistence of the digital divide, as discussed by Van Dijk (2020), underscores the need for policies that ensure equitable access to technological resources. The findings suggest that while

technology can enhance educational experiences, addressing disparities in access is crucial for its benefits to be fully realized.

Personalized Learning

Personalized learning emerges as a significant trend, with research indicating its effectiveness in catering to individual student needs. Pane et al. (2017) demonstrate how adaptive learning technologies can enhance learning outcomes by providing tailored educational experiences. The review of works by Knewton (2018) and others highlights practical implementations of personalized learning in classrooms, which have shown to improve student engagement and performance. This trend underscores a shift towards more customized education models, moving away from traditional one-size-fits-all approaches and recognizing the diverse learning paces and styles of students.

Socio-Emotional Learning and Inclusivity

The importance of socio-emotional learning (SEL) is well-documented, with Durlak et al. (2011) showing that SEL programs significantly enhance academic performance and emotional well-being. Concurrently, inclusivity in education is gaining traction, with studies by Hehir et al. (2016) providing strategies for implementing inclusive practices that accommodate diverse student populations. These findings highlight a growing recognition of the need to support students' emotional and social development alongside academic achievement, and to create equitable learning environments that cater to all students.

Impact of COVID-19 on Education

The COVID-19 pandemic has profoundly affected education systems worldwide. Research by Reimers and Schleicher (2020) highlights how institutions adapted to remote learning, with innovative approaches emerging to address unprecedented challenges. The pandemic exposed systemic vulnerabilities, particularly the digital divide, as noted by Zhao (2020). These findings

suggest that while remote learning can be effective, there is a critical need for resilient education systems and policies that address inequities in access to technology and educational resources.

Innovative Instructional Strategies

Innovative instructional strategies, such as project-based learning (PBL) and flipped classrooms, are increasingly being adopted. Larmer, Mergendoller, and Boss (2015) argue that PBL enhances critical thinking and problem-solving skills by engaging students in real-world projects. Similarly, Bergmann and Sams (2012) discuss the benefits of flipped classrooms in promoting active learning and deeper understanding of course material. These strategies reflect a shift towards more interactive and student-centered learning environments, which can better prepare students for the complexities of the modern world.

Role of Educators

The evolving educational landscape has redefined the role of educators. Research by Darling-Hammond et al. (2017) underscores the importance of professional development for teachers, enabling them to effectively incorporate new technologies and methodologies into their teaching. Gay (2018) further emphasizes the critical role of teachers in fostering supportive and inclusive classroom environments. These findings suggest that continuous professional growth and adaptability are essential for educators to meet the demands of modern education.

Educational Policy Reforms

Educational policy reforms are essential in shaping the future of education. Fullan and Quinn (2016) highlight the need for coherent policy frameworks that support technological integration, personalized learning, and inclusivity. Means et al. (2014) argue that policies addressing the digital divide and ensuring equitable access to quality education are imperative for achieving educational equity. These findings indicate that thoughtful and well-implemented policy reforms are crucial for fostering an innovative and equitable education system.

Conclusion

The results of this comprehensive review underscore the dynamic nature of current trends in education, driven by technological advancements, personalized learning, socio-emotional development, innovative instructional strategies, and policy reforms. The discussion highlights both the opportunities and challenges associated with these trends, providing valuable insights for educators, researchers, and policymakers. By synthesizing findings from original works, this review offers a nuanced understanding of the evolving educational landscape and underscores the importance of continuous adaptation and innovation in education.

5. Conclusions

This comprehensive review of current trends in education reveals a rapidly evolving landscape characterized by significant advancements and persistent challenges. The integration of technology, personalized learning, socio-emotional development, innovative instructional strategies, and educational policy reforms are all shaping the future of education.

Technological integration has demonstrated the potential to enhance educational experiences significantly, making learning more interactive and accessible. However, the digital divide remains a critical issue, necessitating policies that ensure equitable access to technology for all students.

Personalized learning has proven effective in addressing the diverse needs of students, allowing for tailored educational experiences that enhance engagement and performance. This shift towards individualized learning models reflects a broader recognition of the importance of catering to different learning styles and paces.

Socio-emotional learning (SEL) and inclusivity have gained prominence, emphasizing the need to support students' emotional and social development alongside academic achievement.

Implementing inclusive practices is essential for creating equitable learning environments that accommodate all students, regardless of their backgrounds or abilities.

The COVID-19 pandemic has underscored the need for resilient education systems capable of adapting to sudden disruptions. The rapid shift to remote learning highlighted both innovative approaches and existing systemic vulnerabilities, particularly regarding equitable access to digital resources.

Innovative instructional strategies, such as project-based learning and flipped classrooms, are gaining traction as effective methods for fostering critical thinking, problem-solving skills, and active learning. These strategies represent a move towards more interactive and student-centered educational environments.

The evolving role of educators is crucial in this dynamic landscape. Continuous professional development and adaptability are essential for teachers to effectively incorporate new technologies and methodologies into their teaching practices. Educators play a pivotal role in fostering supportive and inclusive classroom environments.

Educational policy reforms are imperative for supporting the integration of these trends into the broader education system. Coherent and well-implemented policies that address technological integration, personalized learning, and inclusivity are vital for achieving educational equity and fostering innovation.

In conclusion, this review highlights the multifaceted nature of current trends in education and the importance of ongoing adaptation and innovation. By synthesizing findings from original works, this analysis provides valuable insights for educators, researchers, and policymakers striving to enhance educational practices and outcomes. The future of education lies in the successful integration of these trends, addressing both opportunities and challenges to create a more equitable, effective, and resilient educational landscape.

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Organizational Incivility: Patterns and Profiles among Teaching Staff

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Abstract

Organizational incivility is a type of behavior that can be frequently encountered in the workplace environment. Even if it can have a low intensity and is vaguely perceptible, studies in recent years find that these manifestations can be contagious and over time can become part of the organizational culture. It usually manifests itself through behaviors such as: taking credit for someone else's work, unpleasant emails, compliments with ambiguous meaning, which cumulatively affect the well-being of employees at work. Distinct characteristics of the target (victim), the instigator and the witness were noted, taking into account criteria such as: position in the organizational hierarchy, certain personality traits and behavioral reactions. The teaching staff have not been speared of manifestations of workplace incivility as it can be seen through the interviews that it is a frequent occurrence.

Keywords: incivility, perceptions, patterns, profiles, teaching staff
JEL Classification: D2

1. Introduction

The organizational environment is an arena that catalyzes both functional and dysfunctional processes. The interest of researchers in the field of organizational psychology can be seen through the abundance of studies that focus on phenomena such as burnout, mobbing, occupational stress and counterproductive behaviors. For some of us, the following scenario at work might be familiar: a colleague who makes an ambiguous remark or compliment in relation to a characteristic at first glance seems to be a joke, but at the same time puts us in an unpleasant light, but we overlook it, it's not like we're going to report this to Human Resources department. Then another day, the same colleague interrupts us while we're giving a presentation to the entire department. A week later, the colleague mentions that the hairstyle does not fit us very well. Each separate situation is not serious, but when they accumulate, emotional tension begins to rise. This subtle phenomenon is called organizational incivility.

The purpose of the study is to establish patterns and profiles of organizational incivility among teachers in pre-university institutions. Based on this aim, we set the following objectives:

1.analysis of theoretical aspects with reference to organizational incivility;

2.to investigate perceptions of the manifestation of organizational incivility among teachers;

3.establishing profiles and patterns of organizational incivility among teachers.

2. Literature Review

In 1999, Andersson and Pearson first brought this phenomenon to the attention of researchers, defining incivility as deviant behavior of low intensity, with an ambiguous intent to cause harm to the target, in violation of the norms of mutual respect in the workplace (Milam et al., 2009).
Over the course of more than twenty years there have been numerous studies that touched the topic, including those conducted by Cortina and colleagues that have shown that 71% of court

employees, 75% of university employees, 79% of legal employees, have encountered some form of incivility in the workplace (Cortina, 2008; Cortina & Magley, 2009). Also in studies conducted by Einarsen and Raknes in 1997 - 75% of employees experienced general harassment, after Rospenda, in 2002 - 64% of employees experienced general harassment at work and after Neuman, in 2004 - 67% - were treated in a rude and disrespectful manner (Lim et al., 2008).

In 2009, Reio and Ghosh published a cross-sectional, correlational study of workplace adjustment, employee emotional state, incivility and physical health, and job satisfaction in a multiethnic population. They were able to present evidence that demographic status, job fit, and affective state predict interpersonal and organizational incivility, which in turn predict employee physical health and job satisfaction.

The explanation, why such subtle behavior brings so much trauma, reveals in the fact that incivility very easily falls into the category of everyday nuisance. Some authors state that these everyday annoyances do not have the intensity of major life events, but the chronic aspect of the stressors, over time, begin to tire the person, both psychologically and physiologically.

A reference point of profiles is Cortina and Magley's (2009) article in which they established characteristics of the target and the instigator. According to this research, the characteristics of the target depend very much on the person's position in the organization's hierarchy, as it is on this position that depends how they perceive their lack of control over the environment. It was documented by Malamut and Offermann in 2001 that employees lower in the organizational hierarchy rated their experiences of workplace harassment more negatively than employees higher in the organizational hierarchy. The characteristics of the instigator, likewise, are closely related to his or her social position in the organization, especially when talking about perception.

3. Methodology

In our study we have two groups of subjects, with participants of teachers from 2 general education institutions. The teachers teach different subjects.

The first group of subjects completed the Workplace Incivility Scale (WIS) and Workplace relational civility "mirror" questionnaire, here 60 subjects participated, 54 were female and 6 male. The age of the participants is divided into two predominant categories, i.e. age 30-39 years - 36% and 40-49 years - 27%. For the interview part, 10 teachers participated, previously participated in the questionnaires and were randomly selected for the interview. The interview participants were 9 females and 1 male, with ages ranging from 23 to 52.

For the Workplace Incivility Scale (WIS) consisting of 12 items, 17 subjects scored 12, showing a very low level of workplace incivility. Only one subject scored 26 points, a medium level of incivility, the remaining 42 participants have a much lower than medium level of perceived incivility at work. We have framed the results in the figure below:

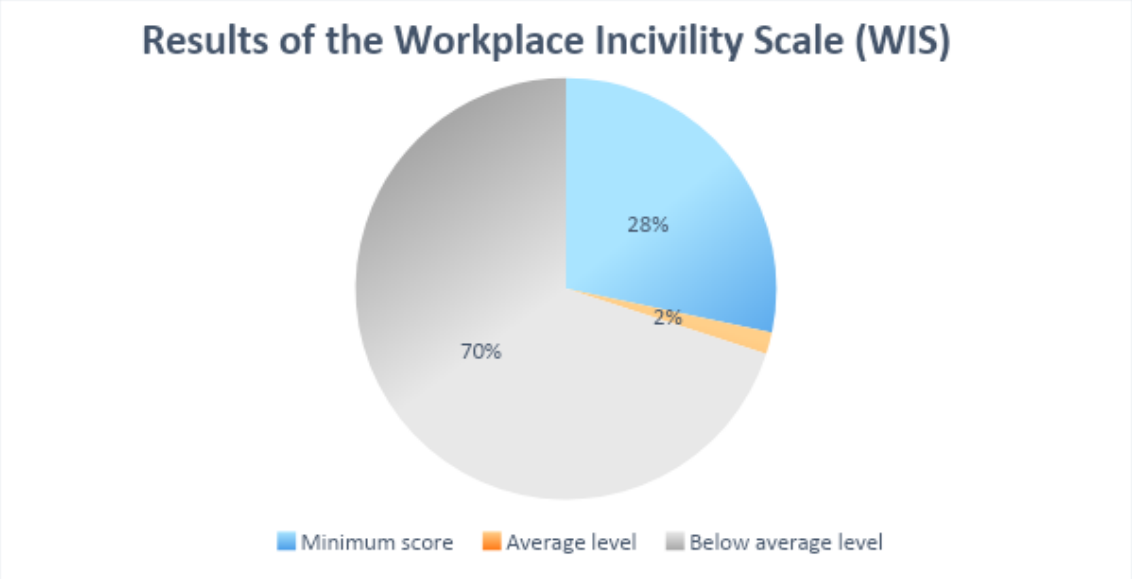

Figure 1. Results of the Workplace Incivility Scale (WIS)

The Workplace Relational Civility "mirror" questionnaire is made up of two parts, in which the level of perception and self-perception of organizational incivility is studied, how the subject considers that he behaves with his colleagues and how he perceives that his colleagues behave in relation to himself. In the figure below we have placed the results obtained:

4. Results and Discussions

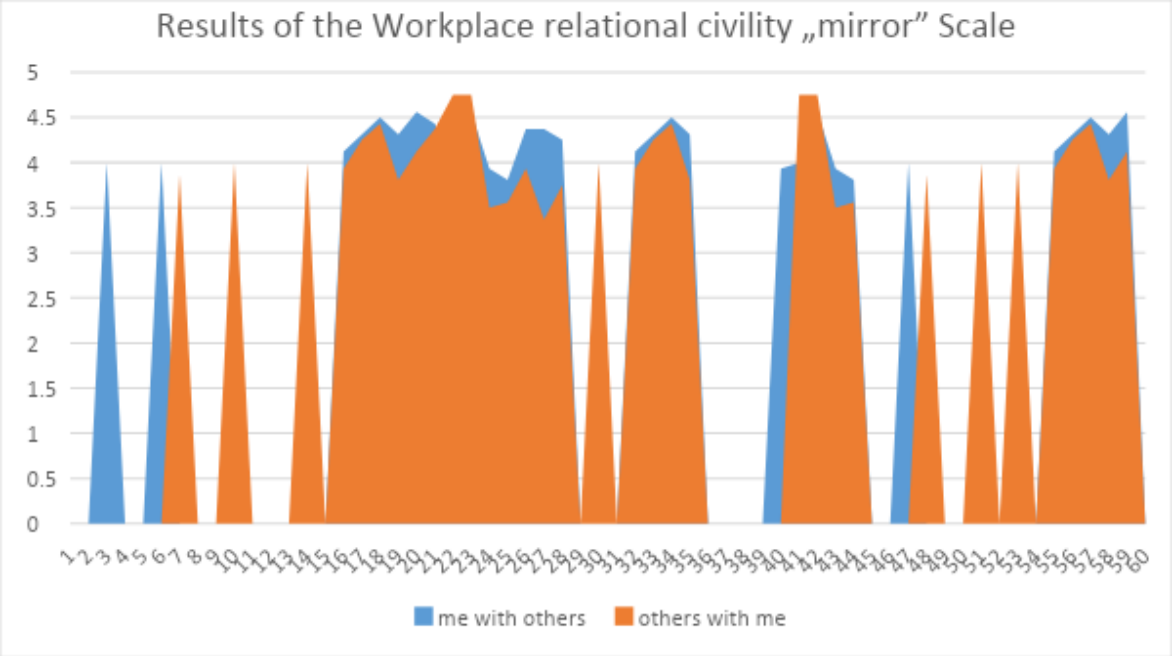

Figure 2. Results of the Workplace relational civility „mirror" Scale

From the figure, we can see that the results exceed an average level of civility in the workplace, which leads us to conclude that the group of participants perceive that their behavior towards others is more civil than the behavior of others towards them, 73% of participants believe that they behave more civilly towards others than their colleagues behave towards them and 27% of participants believe that their colleagues behave better towards them than they behave towards their colleagues.

For the qualitative part, we conducted 10 interviews with participants who completed questionnaires. Compared to the results obtained in the quantitative part, the interviews give us a completely different picture. The interview participants range in age from 23 to 53 years, with work experience in the unit ranging from 0-6 years and total work experience ranging from 2 years to 35 years. In other words, the participants showed a diversity not only in work and content taught, but also in experience.

In the first part of the interview, we compiled a checklist of behaviors often categorized as uncivil and the participant responds whether they perceived these types of behaviors in the institution in their work group and had the opportunity to add any remarks and/or comments. In this stage, the results took a different form from those presented in the quantitative stage. Here we already see a presence of organizational incivility, quite relevant. We have two types of behaviors that 100% of participants mentioned the presence of, namely: talking about staff behind their backs (gossiping) and employees seem irritated or "tired" from work. Also, 90% of the interviewees, noted the presence of colleagues making unpleasant facial expressions, such as rolling their eyes and the appearance of side conversations during meetings or some people seem to be glued to their phones. And 80% of respondents also noted the presence of using silent treatment.

On the case study side, the participants had quite interesting reactions, mentioning that both situations are cases that are not out of the ordinary and can easily be seen in school. The participants were better able to construct patterns of unacceptable behaviour, which were the vast majority. One effect that would have changed the way teachers decided which behaviours were unacceptable was the tone, but also the way a message is conveyed, in the example in case study 2 about criticism offered from a peer, which is interesting as 70% of participants observed behaviours using a smug tone/language with peers. Equally relevant is the fact that only some behaviors were placed in the grey area: selective invitations, comments made about predecessors'

work, rolling her eyes...something she didn't like and couldn't control her emotion, criticism...maybe she wishes him well, non-socialising with colleagues outside of work.

One confirmation for us that participants associated with the events described in the case studies is that we had participants who mentioned they were in the position of the characters described. Which leads us to the idea that incivility is not foreign to teachers.

For our study, we will use the term **pattern** with the meaning of behavioral patterns manifested by a person and profiles as defining personality traits of both the aggressor, the target and the bystander. From the interview it was much easier to delineate which behaviors are unacceptable and manifest the heart of incivility, these are:

1. gossip;
2. unsolicited advice;
3. questioning someone's professionalism in public;
4. rolling your eyes;
5. marginalising someone;
6. neglecting colleagues;
7. interfering with colleagues.

5. Conclusions

As far as acceptable and grey area behaviors are concerned, here we have more individual opinions, so somehow we even relate them to the individual set of values the person has and of course to their own perceptions. Interestingly the picture of what is not ok was clearer compared to what is ok.

Regarding the **profiles**, here very clearly there was a black and white thinking, when the participants were asked to provide some personality traits of the case study characters, then the words used were, on the instigators: impertinent, impudent, unprofessional, unfaithful,

hypocritical, a man who has no place in pedagogy. These descriptions were used without questioning the motivation of the characters. As for the targets, they were victimised but also called weak in character for not fighting back, in the case of the character who complied this was called lacking in verticality. That is, here again the messages proved to be much harsher than expected, both on the target and on the witnesses, because the witness should have taken a stand.

The study of organizational incivility turned out to be a process in which we explored this unknown phenomenon for our cultural space in relation to other terms already well studied in organizational psychology. Quantitative methods did not show us a relevant presence of organizational incivility, while qualitative methods showed us a much deeper reality. Respectively we will take this into account in the selection of future research methodologies. The phenomenon of incivility is so subtle but can give acute and long-lasting effects, one metaphorical form we can use is that in an avalanche, every flake is responsible, something so small and superficial at first glance, in amalgam is as dangerous, if not more so than mobbing. As a final point we have been able to formulate some patterns and profiles of incivility and to explore the perception of the teacher as an employee of incivility and certain attitudes towards the actors involved in organizational incivility.

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The Value of Self-Analysis of the Teaching Activity of Primary School Teachers and Its Relevance on Self-Perceived Professional Progress

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Abstract

The present qualitative study, part of a wider research, aims to investigate the ways in which self-analysis of teaching activity is used among primary school teachers in Romania and the relevance of this approach on the self-perceived professional progress of teachers. Data collection was carried out by applying the focus-group method for a sample of 51 participants. The focus-group grid consisted of several preliminary questions, six open questions that allowed the formative valences of the self-analysis of the teaching activity to be outlined, and a concluding question. In this paper, we have focused on the ways in which self-analysis of teaching activity can be used and the contribution of this process to teachers' self-perceived professional progress. Following the recording of the answers, their analysis and coding, aspects such as: the permanent reporting of teachers to students, the achievement of educational goals, the optimal and prompt change of teaching strategies, the use of self-reflective questions, didactic self-regulation and the efficiency of the instructional-educational approach, considered as prerequisites for the practice of self-analysis of teaching activity, were highlighted. On the other hand, we found that all 51 primary

school teachers claim that self-analysis of teaching activity contributes significantly to their self-perceived professional progress.

Keywords: self-analysis of teaching activity; self-perceived professional progress; reflective self-questioning; teaching self-regulation.

JEL Classification: I2

1. Introduction

In the context of the dynamism of contemporary society, it becomes imperative that each individual autonomously identifies his/her own development path, at his/her own pace, and starting from the knowledge, internalization and valorization of his/her personal and professional identity. In this respect, the process of self-analysis can be a forward-looking approach aimed at developing relevant strategies for making the actions undertaken more effective and facilitating the professional progress of the individual concerned.

Self-analysis of teaching activity, a new term in the field of education, is only tangentially and marginally dealt with in the literature. This is despite the fact that the importance of self-analysis of teaching activity by primary school teachers is crucial, since we are talking about a segment of schooling that provides the foundations for the development of the personality of the educated. A Eurydice Report (European Commission, 2023) reports on the general aims of pedagogical instruction at primary school level: to provide basic education for all children; to develop their personalities on the basis of their individual characteristics; and to acquire the fundamental skills needed to ensure continuity of education. In order to achieve these educational goals, which are the responsibility of the teacher, it is necessary for the teacher to undertake reflective, introspective actions, which allow him/her to constantly restructure the pedagogical approach, starting from the premises of his/her own awareness. Awareness of these actions and their level of success will enable teachers to develop self-perceptions of their professional progress. Through this qualitative

educational research, we want to investigate, operationally, the ways in which primary school teachers value the process of self-analysis in the classroom. On the other hand, we want to identify the usefulness of this process in self-monitoring their professional progress.

2. Literature Review

The contemporary era, with its evolutionary implications, has imposed a conceptual-applicative restructuring of teachers' professionalism. This new paradigm involves a massive expansion of the roles that teachers perform in the classroom, in line with the expectations of students (at the micro level) and the expectations of society (at the macro level). A comprehensive scientific approach (Farihin et al., 2022) highlights the importance of continuous development of teachers' competences for their professional progress. So far, professionalism is addressed from three perspectives: the importance and quality of the teacher education process (Yuliana et al., 2019), the correlation (at the achievement level) of teachers' professional competences with students' academic performance (Diana et al., 2020; Permatasari & Sobandi, 2019; Thaariq et al., 2020) and the influences of teachers' teaching performance on quality in education (Kos, 2021).

A possible route for teachers to achieve professionalism is explained by Farihin et al. (2022) by going through the following stages: professional training, professional certification, understanding and acceptance of career shortcomings, reflective dissemination of findings and self-awareness, value orientation of the teaching approach according to predetermined standards, adoption of mentoring, practice of collaborative professional action, action research and addressing transformative, innovative pedagogical directions. These stages can only be traversed by teachers through teaching commitment (Nafis et al., 2019). In order to systematically practice these evolutionary approaches, we believe that self-analysis of teaching activity plays a crucial role.

Self-analysis of teaching activity, a new concept in the field of education, can provide teachers with the appropriate framework for systematic reflection, which has a strong regulatory character for

past actions and a strategic-guiding character for similar future actions. More than reflection, self-analysis of the teaching activity allows value judgments to be made on the teacher's own pedagogical approach, written/auditory/visual recording of observations and self-reflective questions from the relevant instructional sequences, and experimentation with new teaching strategies to validate the previously designed premises. Self-analysis of teaching activity is defined by Cioloca and Bocos (2023) as an interrogative, prospective and retrospective activity on the main elements of structure, composition, events, experiences and feelings, accumulated in the educational act, with the aim of resolving dysfunctions, in order to obtain superior results, from a qualitative point of view.

Self-analysis of a teacher's teaching activity is constantly carried out by referring to students' cognitive and non-cognitive behaviors. As a result, the self-reflective questions that the teacher should operationalise concern, on the one hand, the way of organizing and coordinating the pupils' learning activity and, on the other hand, the impact of the teacher's attitude on the psychosocial climate in which the lesson took place. These cognitive and non-cognitive behaviors of the learners can be observed at the observational level of the teacher, or through the feedback process which illustrates the degree of comprehension and its limits in the learning process. Baines' (n.d.) study, structured on case studies and statistical analyses, reports that teacher feedback and reflections recorded after lessons are significantly correlated with high performance. Another result of this study designated the importance of teachers' reflection on teaching procedures and their relevance to the quality of teaching. Thus, a teacher who wants to self-perceive, at a realistic level, his professional progress, will ask himself self-reflective questions about the effects of his pedagogical approach on the students he is supervising, constantly collecting feedback from them and constantly adjusting his set of teaching strategies in order to make the instructional-educational process more effective.

3. Methodology

Aim of the research

In accordance with the stated research questions, the aim of the research is: to investigate the ways of valuing the self-analysis of the teaching activity, from a practical-actional perspective, in order to achieve professional progress, based on the personal and professional self-perceptions of primary school teachers in Romania.

Research objectives

O1. To investigate the perceptions of primary school teachers on the ways in which they value self-analysis of their teaching activity and its implications for teachers' self-perceived professional progress;

O2. To analyze and interpret the ways in which teachers' self-expressed self-analysis of their teaching activity is valued in relation to its multidimensional implications.

Research questions

The present educational research was conducted on the basis of the following questions:

1. What are the ways in which the self-analysis of teaching activity by primary school teachers is valued?

2. Is self-analysis of the teaching activity of primary school teachers a useful and favourable process for self-monitoring professional progress?

Research method and instrument used

In the present study, we used the focus group method for data collection. Thus, through collective, semi-structured discussions, we facilitated the debate of the educational phenomenon under investigation: self-analysis of the teaching activity and exchanges of professional experiences among the teachers participating in the study. The research instrument used for data collection was the focus-group grid, which included preliminary questions, open-ended questions on the ways of valuing self-analysis of teaching activity and a concluding question, through which teachers

expressed the intensity of their agreement/disagreement regarding the contribution of self-analysis to their own professional progress. The time allocated to this grid was 60 minutes.

Sample of participants

The population we were interested in researching was the community of primary school teachers in Romania. In order to select the sample of participants, we applied simple random sampling, which generated the participating counties for the present research: county HR, county SV, county NT, county CT, county AG, county DJ, county TM, county AR, county SM. The entire exploratory approach respected research ethics, so we undertook the research through institutional agreements, partnerships between the institutions involved and by respecting the rules of confidentiality of personal data. Participants in the study gave their consent including for the audio recording of each interview, which were subsequently transcribed.

4. Results and Discussions

Coding and data analysis

The transcription of the audio recordings resulted in nine texts, on which we carried out a content analysis, in which we valorized the self-perceptions expressed by the participants, starting from the unit of analysis: the formative value of the self-analysis of the teaching activity, with the 7 related sub-units. We mention again that the present educational research is part of a larger research of its own. Thus, out of the total of 7 sub-units of analysis, dealt with in our own broader research, in the present research approach to the formative value of self-analysis of teaching activity, we will consider only two sub-units of analysis, in line with the aims pursued:

I. Ways of valuing self-analysis in teaching activities;

II. Degree of contribution of self-analysis to professional progress.

Content analysis was carried out by assigning codes to the self-perceptions expressed by the study participants. These codes took the form of statements and were created on the basis of the researcher's self-reported similarities across the units of analysis.

The 5 resulting codes for the sub-unit of analysis "ways of valuing self-analysis in teaching activities" are explained as follows:

Focus group grid item	Coded text passages	Code numbering	Enunciation of the code	Code frequency
How can self-analysis of teaching activity in the classroom be used?	"Self-analysis helps me primarily in my relationship with my students." "It often happens to me that I analyze students' reactions to the tasks I propose during each lesson." "Everything we think about when we do self-analysis is strictly related to students' work..."	Code 1.1.	Self-analysis of the teaching work of primary school teachers is constantly carried out in relation to pupils and their cognitive and emotional spectrum.	10/51
How can self-analysis of teaching activity in the classroom be used?	"Self-analysis of the lesson means to see if we have met the proposed goals, through evaluation sheets, or by checking the homework in the next class." "As an addition, in self-analysis, we are talking about continuous feedback that we need to receive from the students. This feedbac helps us to figure out what we did well, what we didn't do well, where we need to improve some things."	Code 1.2.	Self-analysis of teaching activity can be used by teachers to validate/invalidate the achievement o educational goals, based on feedback from learners.	6/51
How can self-analysis of teaching activity in the classroom be used?	"For personal development, every day we should ask ourselves what went wrong and what we can do differently in future activities." "I believe that every day we should evaluate ourselves. It is a diagnosis for us. We see what we need to continue in the future, what we can fix in ourselves so that the instructional-educational activity is a quality one."	Code 1.3.	The practice of self-analysis of teachi activity provides teachers with an opportunity to address reflective self-questions in a responsible manne to identify strengths and weaknesses in their own careers and for continuou professional development.	9/51
How can self-analysis of teaching activity in the classroom be used?	"We can make the most of the teaching activity, following self-analysis, by changing teaching strategies. That is, the momen realize that a certain strategy didn't work, if I look back on what happened in that learning sequence, I can come and change, use another strategy so that I can achieve my proposed operational objectives."	Code 1.4.	Self-analysis of the teaching activity, starting at the design stage and carried out systematically throughout the educational process, requires the teacher to change teaching strategies i order to improve the instructional process.	8/51
How can self-analysis teaching activity in t classroom be used?	"At the classroom level, it helps us to self-regulate our work, to identify our strengths, our weaknesses and to streamline our worl as we go along." "It can be used, in particular, to improve what you do."	Code 1.5.	Consistent practice of self-analysis of teaching activity by teachers leads to self-regulation, improvement and efficiency of the instructional-educational process.	10/51

Table 1. Analysis of codes for the sub-unit "ways of using self-analysis in teaching activities"

As can be seen in **Table 1**, there are many ways in which primary school teachers can use self-analysis of their teaching activity. Among them, in the self-perception of primary school

teachers, we highlight: the feedback received from students, an integral part of the self-analysis of teaching activity, seen as a process of validation of the achievement of educational goals; the possibility of identifying answers to self-reflective questions about one's own career; the possibility of changing teaching strategies to make the instructional process more effective. According to the analysis of the codes, the following are recorded most frequently: permanent reporting to students and self-regulation and improvement of the teaching act. Primary school teachers claim that during classroom work they observe their pupils and collect the data necessary for self-analysis, based on the teaching relationship established between them, the pupils' reactions, their results and their end products. On the other hand, teachers claim that self-analysis of their teaching activity leads to an awareness of their own teaching actions. The understanding of these, of the rewarding aspects of the lessons, but also of the less functional ones, favors the issuing of value judgements, the adoption of relevant decisions through which teachers self-regulate, improve or make their professional activity more efficient.

The 2 resulting codes for the sub-unit of analysis "degree of contribution of self-analysis to professional progress" are explained as follows:

Focus group grid item	Response options, Likert scale	Code numbering	Enunciation of the code	Code frequency
Can systematic self-analysis of teaching work contribute significantly to professional progress?	- not at all - to a small extent - moderately - to a large extent - totally	2.1.	*Self-analysis of teaching activity fully contributes to the professiona progress of primary school teachers.*	28/51
Can systematic self-analysis of teaching work contribute significantly to professional progress?	- not at all - to a small extent - moderately - to a large extent - totally	2.2.	*Self-analysis of teaching work contributes greatly to the professional progress of primary school teachers.*	23/51

Table 2. Analysis of codes for the sub-unit "degree of contribution of self-analysis to professional progress"

Professional progress requires constant improvement of teachers' educational practices, which can be ensured through self-analysis of teaching activity. This improvement can be produced systematically, starting from conscious self-reflection in real time, in the lessons undertaken, to the adoption of necessary, self-reflective, scientifically validated changes and the recording of subsequent changes, to the development of thriving professional interactions, at community level, with the teacher's professional status being qualitative-recognised.

5. Conclusions

In the present empirical research, we investigated the ways of valuing the self-analysis of teaching activity, from a practical-actional perspective, based on the personal and professional self-perceptions of 51 primary school teachers from all geographical regions of Romania. Beyond our efforts to generate comprehensive research, we encountered some limitations. These are the impossibility of assigning codes to 15 passages of text, due to lack of adequate content, and the non-existence of answers from participants for each question asked by the researcher. The results obtained in this research can form the pillars for future directions of experimental research: testing the effectiveness of in-service training programs designed and implemented to provide opportunities for self-monitoring of teachers' professional progress, design and application of tools for feedback/self-feedback, reflection and self-analysis of teaching activity.

Following this research, we highlighted, based on the teachers' answers and their teaching experiences, the ways of valuing self-analysis of teaching activity and its relevance on self-perceived professional progress.

The process of self-analysis of the teachers' teaching activity is carried out systematically, by using reflective self-questioning, by referring to the students' particularities, by constantly addressing the feedback from the learners, by self-identifying the strengths and weaknesses of their own career and by changing teaching strategies.

All this has a multidimensional self-regulatory purpose: to achieve educational goals, to make subsequent teaching activities more effective, to improve the instructional-educational act in general and for continuous professional development.

Also, all 51 primary school teachers claim that self-analysis of their teaching work contributes significantly, i.e. to a great extent and in full, to self-monitoring their professional progress.

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Irrational Thinking and Stress among Adolescents: The Role of Self-Efficacy

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Abstract
Everyone on the planet knows what stress means. The purpose of this related study was to explore the relationship between adolescents' perceptions of their own worth and their acceptance of irrational thinkings and stress. 310 high school students in the Baghdad area participated in the study and provided data for this analysis. There were 177 females (57.1% of the sample) and 133 males (42.9% of the sample). The mean age of participants was 16.43 (SD = 1.20) years. We collected information from the Rosenberg Self-Efficacy Scale, the Perceived Stress Scale, and the Adolescent Irrational Thinking Scale. The data were tested using Bootstrap method, ordinary least squares regression, Pearson correlation analysis and descriptive statistics. The results show that self-efficacy has a strong mediating effect between irrational thinking and feelings of stress. Previous research findings are considered and recommendations are made for future mental health researchers and practitioners.

Keywords: Irrational thinking, Self-efficacy, stress, adolescents.
JEL Classification: I21

1. Introduction

At some point in life, everyone experiences the negative effects of stress. As stated in (Lazarus and Volkmann 1984), each of us faces stress and stress every day. According to the definition of "stress" by (Cohen, Kamarck, Mermelstein 1983), "stress" refers to "the extent to which a person faces stressful life situations".

Adolescence is a unique and important period of growth, but it also comes with a lot of turmoil and stress. This is an important transition period between childhood and adulthood. Adolescence is a time of deep helplessness and uncertainty. When a person is between the ages of 12 and 18, this undergo rapid changes both physically and mentally (Cicchetti & Rogosch, 2002; Santurc, 2016; Seiffge-Krenke, 1995). As Rudolph (2002) describes, a person's body, emotions and feelings, interactions with others, and environment all undergo significant changes during adolescence.

According to Havighurst (1953), adolescent development involves a variety of tasks, including but not limited to: coming to terms with a mature body and mind; coming to terms with one's career aspirations; gaining emotional and psychological independence from parents; developing healthy, mutually beneficial relationships with peers; regulate their own sexual behavior; adopt their own values; and demonstrate greater impulse control and behavioral maturity. Because of this, these changes and new responsibilities place a greater burden on adolescents than ever before.

2. Literature Review

According to Selye (1976), stress is "an individual's response to an objective stimulus requiring a change in his behavior, physical condition, or perception" (Selye, 1976, p. 17). In order to adapt or change one's behavior, a person must first take an internal inventory of one's strengths, weaknesses, coping strategies, and readiness to deal with environmental stressors (Lazarus & Folkman, 1984). Depression (Kercher & Rapee, 2009) and suicidal ideation (Zhang, Wang.,)

have all been related to adolescents' concerns about fulfilling their responsibilities. Several studies have investigated the causes of stress in adolescents and their results can be found in the literature. Glasscock, Andersen, Labriola, Rasmussen, and Hansen (2013) conducted a study among Danish adolescents and found that higher stress levels were associated with lower parental education and wealth. Mates and Kenneth (1992) surveyed tenth graders to understand the stress they faced and how they coped with it. Parent-child dynamics, work and financial issues were cited as major causes of stress.

Lin and Yusoff (2013) studied the factors that cause secondary school students in Malacca to become anxious. They found that more than half of the students in the study were experiencing psychological stress due to academic pressure.

Individuals' irrational thinking processes can predict their emotional responses to stressful situations (David & Szentagotai, 2006). Ellis (1962) defines irrational thinking as (totally) illogical, erroneous, rigid and unpragmatic evaluative cognitions that lead to emotional distress. Irrational, rigid, and unfounded beliefs are called “irrational thinking” (Ellis, 1962). Emotional distress occurs when a person's self-view and worldview conflict with reality, despite the person's belief that both are correct (Ellis & Dryden, 1988). This is a fundamental idea of rational behavioral therapy (REBT), which states that the way we perceive experiences affects the way we learn from them. Ellis describes some mistakes that almost everyone makes. False beliefs include blame, expressions of fear that exaggerate the likelihood of negative outcomes, and “must, must, must” statements that are difficult to achieve. According to Dryden and DiGiuseppe (1990), irrational thinking is mainly divided into three categories: requirements for self (e.g., "I should do well"), requirements for others (e.g., "You must treat me fairly") and the impact of the request on others in the world (e.g., “The circumstances of my life must be the way I want them to be”). Unlike illogical thinking, which can lead to maladaptive emotional responses in the face of trauma, rational perspectives are more malleable and provide healthy options for coping (David, Lane, & Ellis, 2010). In these situations, stress may increase.

Depression (Marcotte, 1996), accidental suicide (Akcan, Arslan, Ekin, & Karanfil, 2011), deterioration in the relationship with life satisfaction (ivitçi, 2009), and distorted perceptions of social norms (Vukosavljevic-Gvozden, Filipovic, & Opacic)). , 2015) are just some of the negative consequences associated with irrational thinking in young people. Posttraumatic stress disorder (PTSD; Hyland, Shevlin, Adamson & Gary; Hyland, Adamson & Boduszek; Visla, Flückiger, Grosse Holtforth; David, 2016); college stress (Alberto & Jonathan, 2008); and psychological discomfort have all been associated with Related to irrational thinking. Existing literature suggests that illogical thinking patterns are associated with increased stress.

"Self-efficacy" refers to a person's belief in his or her ability to acquire the knowledge and skills required to successfully perform a specific activity (Bandura, 1997). Students who believe in their abilities are less likely to experience anxiety.

A study of teachers and students in Iran and Turkey showed that self-efficacy is related to stress. Negative self-confidence is also associated with a higher risk of mental health problems such as emotional exhaustion and academic burnout (Khezerlou, 2017). Self-efficacy can be measured by observing the extent to which a person connects his or her knowledge to beliefs about his or her ability to use that knowledge in difficult situations (Kalat, 2016). Adolescents who are independent and creative have a greater chance of overcoming the obstacles they encounter. From this perspective, situational analysts and the application of skills and motivations can be used in many areas to analyze how an individual's internal systems interact with the external world as a source of events. Research shows that people with low self-efficacy are more sensitive to criticism. These people have severe self-doubt and avoid taking on challenging tasks out of fear of failure. Because of the fear associated with believing these lies, it becomes more difficult to use metacognitive strategies that might otherwise be useful (Coutinho & Neuman, 2008). That's why we're here to understand how adolescents' confidence in their abilities affects the link between irrational thinking and emotional distress.

Stress and stress responses are associated with the risk of burnout.

Secondly, belief in one's abilities is affected by both rational thinking and emotional fluctuations. This is why we rely on self-efficacy as the facilitator of the model. The impact of adolescents' diverse perspectives and self-evaluations is profound (Nes & Segerstrom, 2006). Therefore, we wanted to examine the impact of this mediating factor on challenging learning events and responses to them. As stated previously, many researchers have studied the role of self-efficacy in educational settings. The purpose of this study was to test hypotheses based on the (Krypel and Henderson-King 2010) study, which found a statistically and practically significant negative relationship between high levels of self-efficacy and stress in college students. When discussing whether students' self-efficacy affects the relationship between academic demands and academic performance, it is important to note that academic burnout is a direct result of these stressors.

Adolescence is a period of transition to adulthood, during which a young person must adapt to his or her more mature appearance, expanded cognitive abilities, and social norms of appropriate behavior, while developing and growing into his or her own personal values in preparation for adulthood. Good preparation (Ingersoll, 1989). With the burden of all these extra responsibilities, teenage life is more difficult than ever. In today's competitive world, adolesceents often say that how they compare to their classmates is valued more than who they really are. When adolescents feel threatened, they tend to exaggerate and misunderstand, convert desires into needs, and internalize their weaknesses (Young, 1983).We conclude that the relationship between illogical thinking and stress in adolescents requires further research.

3. Methodology

Research Design

Descriptive statistics and correlational methods were used to compile these results (Heppner, Wampold, and Kivlighan 2013). They claim that researchers conduct correlational studies to gain insights into the relationships between different variables.

Participants

Participants in this study were high school students from a suburb of Baghdad. The gender distribution of our sample of 310 students was as follows: 177 females (57.1%) and 133 males (42.9%). The mean age of participants was 16.43 years (SD = 1.20). All participants in the study were randomly selected. Researchers using convenience sampling select respondents based on their proximity to the study location and whether the researcher can easily contact them (Cohen, Manion, & Marrison, 2007).

Instrument

Measuring irrationality, a version of the adolescent IBS scale: IBS-A, developed by Ivitci (2006). It was used to assess the illogical thinking level of Turkish high school students. The three parts of the scale are as follows: achievement, ease, and appreciation. The IBS-A exam consists of 21 questions. These five-point Likert items constitute the IBS-A scale. There are five possible answers: “Strongly disagree,” “Somewhat true,” “Strongly disagree,” “Often true,” and “Strongly agree” are the five possible answers. IBS-A shows an increase in irrational thinking in adolescents. Examining the construct validity of the IBS-A using exploratory factor analysis. Factor analysis of the IBS-A showed that item loadings varied from 0.40 to 0.69. The three components of the scale accounted for 33% of the total variance. Items on the IBS-A have subscale correlation statistics ranging from 0.68 to 0.28, depending on the variable of interest. During validation, significant correlations were found between the IBS-A total score and its subscales, as well as the Children's Depression Scale and the Test Anxiety Scale. Three-week test-retest consistency showed reliability coefficients of 0.75, 0.84, 0.67, and 0.82 for the needs for comfort, need for success, need for esteem, and IBS-A total scale measures, respectively. The overall Cronbach’s alpha was 0.71, and the individual subscale values of the “comfort needs” dimension were 0.61, the “success needs” dimension was 0.62, the “respect needs” dimension was 0.57, and the “respect needs” dimension was 0. 61 “Requires respect. "

Perceived Stress Scale (PSS) Cohen, Kamarck, and Mermelstein (1983) developed the Perceived Stress Scale (PSS) to measure a person's level of stress. This scale has 10 different options,

ranging from “never” (meaning “almost never”) to “often” (5 or more times per week). Higher PSS values indicate that the respondent is experiencing higher than average levels of stress. In criterion validity studies, the PSS has been shown to correlate significantly with both the Beck Depression Inventory and the State-Trait Anxiety Inventory. The calculated internal consistency α coefficient of the scale is 0.84, indicating that the scale has good reliability.

Procedure

After obtaining appropriate permissions, the researchers collected student data during regular school hours. Only students who volunteered to participate in the study were counted. The time required to obtain the information is approximately 15 minutes. Data were examined using bootstrap sampling, ordinary least squares regression, Pearson's correlation coefficient, and descriptive statistics. The indirect mediating effect of the bootstrap final variable is statistically significant if the mediating variable contains a point estimate with a 95% BCa confidence interval specified by Hayes (2012; 2013) for intervention analyses. The point estimate is considered statistically significant because it is not within zero. To determine which of these two mediating variables had a greater impact on the model, the researchers conducted a comparative test of them using software developed by Hayes (2012, 2013). Multimediator parallel bootstrapping analyzes were performed using IBM SPSS's PROCESS Macro (publicly available at http://www.processmacro.org/download.html) and programmed to use Hayes' multiple mediator model 4 (Hayes, 2012, 2013). The study used significance level A.05. Data were analyzed using the IBM SPSS 22.0 software package.

Statistical Approach

The correlations and the descriptive statistics obtained from Irrational thinking, stress and self-efficacy variables are presented in **Table 1**.

variables	Men	SD	Skew	Kurt	1	2	3
irrational thinkings	60.67	11.59	.29	.16			
self-efficacy	30.93	5.50	.19	-.67	.13*	----	
stress	31.43	6.69	-.26	16	.21**	-.41**	----

N=310, **p<.0

Table 1. Descriptive statistics and Pearson correlation coefficients related to research

Results

When examining the values provided in **Table 1**, the study group had a mean of 60.67 (SD = 11.59) for irrational thinking, a mean of 30.93 (SD = 5.50) for self-efficacy, and a mean of 30.93 (SD = 5.50) for self-efficacy. 31.43(SD). = 6.69) is the voltage.

From the skewness and kurtosis values obtained for the studied variables, it can be seen that the studied data is normally distributed. Based on the correlations between the study variables, a negative correlation was found between irrational thinkings and self-efficacy (r = -.13, p<.05) and a positive correlation between irrational thinkings and stress (r = .05). 21, p < .05). and found a negative correlation between self-efficacy and stress (r = -.41, p < .01).

There is evidence of a link between self-efficacy and stress As shown in **Figure 1**.

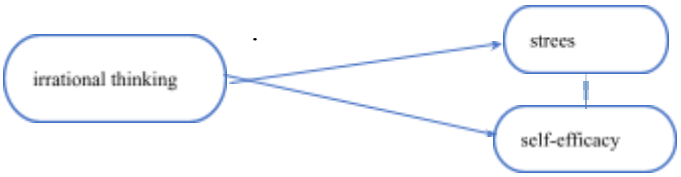

Figure 1

Examining **Figure 1**, the overall effect of irrational thinkings on stress (c = .13, SE = .03, t = 4.18, p < .001) is significant (Step 1). Furthermore, the direct effect of irrational thinkings on the mediating variable self-efficacy (B = -.06, SE = .03, t = -2.40, p < .05) was significant (Step 2). The direct effect of instrumental self-efficacy on stress (B = -.46, SE = .06, t = -7.53, p < .001) was significant (Step 3). When irrational thinking and the mediating variable self-efficacy were assessed simultaneously (step 4), the association between irrational thinking and stress was attenuated

has a direct effect; but the significance value remains at the same level (c'= .10, SE=.03, t = 3.48, p < .01). Based on this result, self-efficacy appears to play a mediating role between irrational thinkings and stress. It can also be seen that the entire model is significant (F(3-306) = 33.21, p <

.001) and explains 25% of the total variance in perceptual stratification. The effect values of the model variables tested in the study are listed in **Table 2**.

Effects	Point	SE	z	p	Lower	Upper
Indirect Effect	..0296	..0145	2.2684	.02*	.0041	0622
Total Effects	.1304	.0312			.0690	.1917
Direct Effect	.1008	.0290			.0438	.1577

Table 2. Effects of variables among models of irrational thinking, stress, and self-efficacy. Bootstrap coefficient BCa product of 95% CI

N= 310, k= 5000, control variables (covariates): gender, *p<.05, **p<.01, ***p<.001 BCa: Bias 5000 bootstrap examples fixed and accelerated.

The study tested whether the indirect effects of the model were statistically significant using 5000 bootstrap samples. Estimates were evaluated using 95% confidence intervals and the results are shown in Table 2 . As shown in **Table 2**, the indirect effect of irrational thinkings on stress through self-efficacy (difference between total and direct effects/c-c') is statistically significant (point estimate = 0.0296 and 95% BCa CI [0.0041, 0.0622]).

4. Results and Discussions

The purpose of this study was to examine how adolescents' confidence in their abilities influences the relationship between irrational thinking and stress. Research has found that higher stress levels are associated with irrational thinking, and that self-efficacy plays an important mediating role in this relationship. Research has found that irrational thinking can increase stress levels by reducing people's confidence in their ability to cope.

These results suggest a link between low self-efficacy and the stress experienced by adolescents. Definition: To prepare for adulthood, adolescents go through a developmental period called adolescence, defined as “a period of personal development during which young people must develop a sense of personal identity and self-esteem.” (Gundersen , Mahatmya, Garasky &

Lohman 2011) pointed out that adolescence is a particularly unstable period of human development. In this formative stage of life, adolescents' irrational thinking has a significant impact on their self-efficacy and stress levels.

Irrational thinking is a major psychological problem associated with low self-efficacy. Daly and Burton (1983) found that low self-efficacy was predicted by four beliefs: need for approval, high expectations of oneself, excessive worry, and problem avoidance. McLennan (1987) found similar negative correlations between self-efficacy and six types of irrational thinkings: need for praise, unrealistic expectations of oneself, adverse reactions to frustration, excessive worry, avoidance of problems, and a general feeling of powerlessness. While irrational thinkings can lead to unhealthy emotional reactions, realistic thinkings can help people find positive ways to cope with traumatic events (David, Lynn, & Ellis, 2010). It follows that irrational thinkings can damage feelings of competence.

Adolescents experience a lot of stress due to all the changes and transitions they experience simultaneously (e.g., puberty, new school, development of romantic relationships; (Cicchetti & Rogosch, 2002)). Adolescents go through as many difficulties . In fact, young people are becoming more aware of their surroundings and are optimistic about their future. They put in a lot of effort to meet their own or others' high expectations. The requirements of schools and other activities can meet their needs. Taking a toll on the health and vitality of today's young people. In today's competitive, stressful world, many adolescents believe they are judged less based on their intrinsic worth and more based on their achievements. Current data suggests that people who regularly engage in irrational thinking This may influence increased stress levels: psychological distress (Visla, Flückiger, Grosse Holtforth & David, 2016), college stress (Alberto & Jonathan, 2008), post-traumatic stress disorder (PTSD) (Philip, Mark, Gary & Daniel, 2014).) and posttraumatic stress disorder (PTSD) reactions (Hyland, Shevlin, Adamson, & Boduszek, 2015) are both associated with illogical thinking.

It can be realistically assumed that adolescent development depends heavily on good

self-awareness, as irrational opinions are illogical, inaccurate, and cause stress. The main purpose of this study was to examine self-efficacy as a possible moderator of the relationship between irrational thinking and stress. As mentioned earlier, irrational thinking can be a harbinger of stress. Irrational thinking is a hallmark of the teenage years and can impact a teen's self-efficacy and stress levels.

For example, adolescents may have irrational thinkings that can lead to increased stress and loss of self-efficacy, such as "I have to pass college entrance exams" or "If I don't pass college entrance exams, it will be a disaster." Myself and my family. "This may have something to do with the typical mindset of this age group. This makes more sense when you consider that adolescents are more reflective, confident, and opinionated than adults. adolescents can easily internalize the twisted meaning of harsh comments and May be influenced by how their peers react to them. No matter where they are, jokes about their appearance can have a negative impact on them.

The current findings suggest a link between irrational thinking and a lack of confidence in one's ability to cope with stress. The results of this study indicate that self-efficacy plays a mediating role in the relationship between irrational thinking and stress. Reducing irrational thinkings and increasing self-confidence can help reduce stress in these teens. The results of this study highlight the need to teach adolescents cognitive skills that will help them think less illogically and cope better with stress. (Young 1983) noted that adolescents often exaggerate and distort reality by converting wants into needs and confusing vulnerability with signs of inadequacy. Schools often offer psychoeducational programs based on cognitive therapy as well as individual psychotherapy for adolescents. The current results contribute to our understanding of the role of self-efficacy in the relationship between irrational thinking and stress. However, the current study suffers from several serious flaws. High school students from the Baghdad area participated in the study. Therefore, hypotheses cannot be inferred from these data.

Summary of Findings

To answer the main question of this study, we used Pearson product-moment correlation coefficients to examine the relationship between adolescents' illogical beliefs, self-efficacy, and ways of coping with stress. Displays correlation values between variables along with their mean and standard deviation.

Theoretical Implications

The literature and hypotheses of this study were used in accordance with the requirements of this study and within the time and space constraints of its implementation. Practical Implications The current study concluded that irrational thinking is present in adolescents and is positively related to psychological distress, whereas both irrational thinking and psychological distress are negatively related to self-efficacy.

Strengths and Limitations

The weaknesses of this study were that the sample did not cover the entire population of adolescents, but was limited only to high school students. As for the strengths, it is represented in knowing the extent to which irrational thinkings are widespread among this segment.

Further Research Directions

This study recommends further research into irrational thinkings and linking them to other variables and age groups, such as children or adolescents.

5. Conclusions

At the end of this study, the researcher concluded that there is relationships between the variables of the current study as he found that irrational thinking was positively related to psychological stress, irrational thinking was negatively related to self-efficacy, and irrational thinking was related to self Effectiveness is negatively correlated. Correlation between psychological distress and self-efficacy.

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