Imagining Possible Futures of Teaching and Learning

Book of abstracts: Regional ISATT24 Conference

Edited by: Stavroula Kaldi, Angeliki Lazaridou, George Fragoulis, Maria Chatzi, Despoina Styla, Panagiota Diamanti, Vassiliki Tzika

Volos 2024

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CONTENTS

Acknowledgments

Conference Description

The conference titled "Imagining possible futures of teaching and learning" aims to address the imperative of reimagining and conceptualizing education, with a particular focus on the diverse forms that teaching and learning may assume in the future. Presently, three significant challenges delineate the forces that will shape education in new directions:

1. The necessity to adapt to the evolving needs and expectations of learners, who are more diverse, interconnected, and empowered than ever before. This necessitates a reevaluation of the curriculum, pedagogical approaches, assessment methods, and support systems within education, as well as the roles and competencies of teachers and learners.

2. The opportunity to leverage the potential of digital technologies, such as artificial intelligence, big data, cloud computing, and virtual reality, to enhance and personalize learning experiences, improve learning outcomes, and broaden access and equity in education. However, this also entails the consideration of ethical, social, and technical issues that must be addressed.

3. The aspiration to establish a more global and inclusive education system that fosters intercultural understanding, collaboration, and innovation, while preparing learners for the complex and uncertain challenges of the future. This necessitates the development of new models and platforms for delivering and sharing education across borders and cultures, as well as engaging with diverse and emerging learners and stakeholders.

Against the backdrop of these emerging educational landscapes, the conference will serve as a forum for scholarly deliberations on the future of education within various educational and cultural contexts. It aims to facilitate the exchange of contemporary research and theories related to teaching and learning, as well as provide an opportunity for establishing networks to foster innovative initiatives across all sectors of formal, informal, and non-formal education.

The 2024 regional conference, "Imagining possible futures of teaching and learning" aligns fully with the goals of the International Study Association on Teachers and Teaching (ISATT) by addressing key inquiries, such as: What might the future of teaching and learning entail? Can educators envision and collaboratively create optimal teaching and learning experiences for all? By tackling these pressing questions, we believe that the conference will enrich and further advance ISATT's primary objectives of generating research-based knowledge aimed at enhancing teaching and learning in the future. Within the evolving landscape of education, the conference will serve as a platform for discussing future trajectories in education across diverse educational and cultural settings. It will foster the sharing of contemporary research and theories on teaching and learning, as well as

facilitate the establishment of networks to drive innovative actions in teaching and learning across all sectors of formal, informal, and non-formal education.

KEYNOTE SPEECHES

Teacher Attrition, Burnout, and Shortage: The Role of Curriculum Making and the Best-Loved Self

Cheryl J. Craig

This lecture probes the internationally vexing topics of teacher attrition, teacher burnout, and teacher shortage. It centers on the roles of curriculum making and the best-loved self and how they might eliminate or escalate the aforementioned concerns. The work begins with Dewey's grouping of teachers—that is, those who are "students of teaching" and "those who look like teachers, but they are not." This segues into a discussion of the image of teacher-as-curriculum-implementer and the image of teacher-as-curriculum-maker. Strengths and challenges of both images are weighed. The bottom line is that governments certify and pay teachers to be implementers. Hence, neither image of teaching is a winner-takes-all proposition. Instead, they are mutually exclusive—out of necessity. Also, with intensification of accountability (US)/performativity (Europe) demands, the question is asked if teachers are now being prepared to be testers and learners are learning how to take tests in the subject matter commonplace position. After that, statistics from conventional and alternate teacher education programs are shared and how teacher preparation may contribute to teacher attrition, teacher burnout, and the teacher shortage is discussed. The U.S. results show a plurality of programs, high teacher attrition, and a burgeoning teacher shortage. Teacher burnout also has skyrocketed. The European example is not as out-of-control, but it is increasing and is concerning. The long and short of the matter is that conventional teacher education graduates are fewer—yes—but they are also the ones most likely to stay in the profession. So, it is a good news-bad news situation. Attention also is paid to the best-loved self, what it is, and the question of whether it may have something to do with attrition, burnout, and the increasing teacher shortage. Eros (the energy of wanting) and vocation are particularly named because both fuel the best-loved self. Dewey underscored the "evil" that happens when appetite, emotion and reason are intentionally separated from one another. For him, human experiences should pattern life and life is whole. That is, it is all-of-one-piece. Thus, we do have a strong inkling of what constitutes sweet spots of learning. However, we also are aware of the dangers of teachers not knowing the different images of teaching and similarly not being introduced to their best-loved selves. Are these phenomena part of what is eating teachers up? Are they contributing to teachers feeling overwhelmed? Is this why teachers are disengaging from their students, friends, and family—and sometimes even their children and themselves? These are all matters to which we need to give fullest attention. We can address teachers' low salaries and other perks rather easily, but there are some deep, underlying concerns needing attention. There is a lot of work to be done. For example, how might the relationship between and among appetite, emotion, and reason be repaired and a more satisfying union established in individuals and in teacher communities? How might "the secret sauce" that unpins successful teaching be shared? Could new teaching and career pathways be forged? All these queries and more will be

discussed because we know satisfying lives are paramount and the health and retention of teachers unavoidably affects students' educational experiences and ultimately their learning outcomes.

Some remarks on educational justice through the perspective of recognition theories

Christos Govaris & George Fragoulis

As our topic falls within the broader field of educational justice, we thought it would be helpful to focus on the need for a theoretical approach that does not equate justice only with typical equality by measuring it in terms of student achievement, but also with substantive equality, placing emphasis on qualitative aspects such as psychosocial well-being and integrated identity. With the renewed discussion on the relational character of education and growing interest in qualitative measures, such as mental well-being, sense of belonging, and recognition, it is essential to question the capacity of the school, as a system, to operate in terms of justice and equality of opportunity. This would enrich the discussion on the relational aspect of education, deepen our understanding of factors that negatively impact student development, and serve as a starting point for changes that should be initiated in schools.

Understanding school education as a relational process, several studies highlight the importance of social relationships developed within the school for learning outcomes and students' school adaptation. In specific, the quality of relationships between teachers and students (Hamre & Pianta, 2001; Kiuru et al., 2015; Pianta & Stuhlman, 2004), teachers' perceptions, expectations, and behaviors in the context of teaching and communicating with their students (Hattie, 2009; Kane & Cantrell, 2010; Kraft et al., 2018; Miklikowska et al., 2019), the quality of peer relationships (Valas, 1999; Guerra et al., 2019; Wentzel et al., 2021), and the school climate (Brand et al., 2008; Dulay et al., 2017; Maxwell et al., 2017) are cited as strong predictors of students' emotional, cognitive, and social development, as well as their academic achievement.

It is also noted that the characteristics and quality of social relationships within the school do not affect all students equally. Students with immigrant backgrounds and from underprivileged socio-economic environments are more influenced by the quality of social relationships in school compared to students from privileged social backgrounds (Hopson et al., 2011; Murray & Zvoch, 2011). Stereotypical treatment of underprivileged students by teachers is significantly linked to their lower academic achievement. On the other hand, students at risk of social exclusion due to cultural background, gender, socio-economic status, and academic abilities benefit greatly from developing positive relationships with their teachers (McGrath & Penny Van Bergen, 2015)."

We argue that the theory of Recognition, as elaborated by Honneth (1994, 2003, 2018), and especially its development as a critical theory of educational justice by Stojanov (2006, 2011, 2013), is suitable for exploring and understanding the role social relationships in schools play in producing educational inequalities. Honneth (2003, 210) argues that individual self-realization and autonomy should be the primary goals of equal treatment for all individuals in our societies. In a just society, relationships of intersubjective recognition

must be ensured, as they are a necessary condition for the formation of an integral personal identity. It defines the core of social justice as three equally important forms of recognition: love and care, legal equality, and social esteem. The formation of each individual's identity depends on all three of these forms of recognition.

Stojanov (2006, 2011) developed Honneth's theory from a pedagogical perspective, elaborating a distinct approach of educational justice. He suggests specific quality criteria that social relationships in school should meet to ensure that all students are supported in obtaining recognition experiences, which are defined as fundamental social prerequisites for their moral, cognitive, and social development, as part of daily school life. He argues that education is not a possession but a process of individual development aimed at achieving autonomy (2011, 16-17). According to Stojanov, the concept of subject development includes two dimensions (2011, 78; 2006, 146): (a) developing relationships with oneself, meaning here self-confidence, self-respect and self-esteem and (b) developing relationships with the world (the development of ideals, and subjective theories). He accepts Honneth's proposed forms of recognition—empathy, respect, and social appreciation—as the essential components of the quality of pedagogical relationships in schools. From a philosophical-pedagogical perspective, Stojanov broadens the content of Honneth's three forms of recognition to include the development of individual relationships with the world and considers that a pedagogical theory of educational justice must account for the fact that it addresses school-age individuals who, due to their level of development, are not yet able to decide and act as fully mature and autonomous subjects.

Focusing on Stojanov's interpretation of the concept of social and educational justice, empathy is considered as a significant factor in developing students' feelings and relationships of trust. When this form of recognition is lacking, students face considerable issues such as feelings of fear, insecurity, neglect, and devaluation. Respect is defined as the acknowledgment of a person's ability to have their own perspective, intentions and values, and make their own decisions. Since all these abilities are expressions of a person's subjectivity, they should be recognized even if one disagrees with them or finds them "immature" or "irrational." Based on this definition, pedagogical relationships function and are experienced as respectful relationships when teachers encourage students to participate by presenting their own interpretations and expressing their unique perspectives. When the school actively seeks and cares for the engagement of all students, it fulfills the norm of respect by accepting all students as subjects capable of contributing arguments to the classroom and school life, thus expressing their experiences and judgment (Stojanov, 2015). Social esteem is the third form of recognition and relates to an individual's ability to express their personal skills in a way that contributes to and enriches society as a whole. Experiences of social esteem constitute an essential condition for a person to develop the capacity to contribute to the community and thus become a fully integrated member of it (Stojanov, 2011, 99). Only under the condition of recognizing the potential of their specific skills can a person truly develop their abilities and build positive self-esteem (ibid., 42).

Studies based on the theory of recognition show that students who experience insufficient emotional support from teachers face challenges in developing relationships of trust with them (Kammler, 2013). When emotional support during teaching is lacking, students feel that their worldview and learning interests are devalued (Wiezorek, 2005). Teachers' emotional support is particularly significant for students at risk of school exclusion or living in hard conditions (Hamre & Pianta, 2005). In addition, the lack of socio-emotional recognition from teachers is linked to student aggressive behavior and increased phenomena of discrimination, marginalization, and competition among peers (Kammler, 2013). Furthermore, immigrant students experience less respect than their native peers due to low academic expectations from teachers, as well as reduced opportunities to participate in dialogue and engage with the material taught in school class. Limited experiences of respect are also associated with lower academic outcomes for migrant students (Vieluf & Sauerwein, 2018). On the other hand, a learning environment characterized by respectful relationships motivates students to engage in the lesson and cooperate with teachers and peers, promoting the development of critical and creative thinking (Pianta, Hamre, & Allen, 2012). Finally, students with low achievement experience the lack of social esteem as a devaluation of their personality. They feel that teachers draw general conclusions about their entire personality based on the assessment of their performance (Wiezorek, 2013)

In conclusion, the proposed conceptualization of social and educational justice by Honneth and Stojanov offers a framework within the educational process to support student development toward building autonomy. Adopting this recognition-based perspective in schools requires adjusting pedagogical practices to meet the normative quality criteria defined by the three forms of recognition: empathy, moral respect, and social esteem. It also underlines the need to empower students as subjects capable of participating in knowledge creation and developing open, world-oriented personal identities.

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Reimagining School Leadership for a Complex World

Angeliki Lazaridou

When you change the way you look at things,

the things you look at change." - Max Planck

Introduction

In this paper, I explore the evolving landscape of educational leadership in response to contemporary challenges, including the COVID-19 pandemic, social justice movements, and declining trust in public institutions. This discourse emphasizes the need for a transformation from traditional, hierarchical leadership models to more collaborative, adaptive, and equity-centered approaches. As educational environments become increasingly complex, leaders need to foster inclusive practices that address the diverse needs of students, families, and communities, ultimately redefining the role of school leaders in facilitating effective learning experiences. Notable themes in this reimagining process include the need to rethink school structures and policies to promote social justice, the implementation of culturally responsive leadership practices, and the recognition of schools as transformative spaces (Kruse & DeMatthews, 2024). I further emphasize the importance of grounding leadership strategies in sound theoretical frameworks, such as complexity and quantum theories, which highlights interrelationships within educational systems (Hegseth, 2024) and promises to enhance innovation and adaptability in navigating the uncertainties of modern education. Finally, in light of ongoing global challenges, reimagining school leadership is not merely an option but a necessity for fostering resilience, equity, and holistic student development in today's interconnected world. As educational leaders grapple with these complex demands, their ability to adapt and innovate will play a critical role in shaping the future of education for generations to come.

The Complex World of Education

Education operates within a multifaceted and dynamic framework, influenced by many factors encompassing historical, political, social, cultural, and economic dimensions (Serdyukov, 2017). To truly understand the complexities of education, it is essential to view it holistically, recognizing its role as a social institution that reflects and reinforces societal values, laws, and traditions (Camins, 2015). This approach necessitates addressing educational issues in light of their connections within the educational ecosystem and the larger society. In today's interconnected world, education must evolve continuously to address the challenges posed by globalization, health crises and climate disasters. The demand for a comprehensive, sustainable, quality educational system has never been more pressing. Educational institutions are encouraged to adopt innovative teaching

methods and curricula that align with international standards, including new pedagogical theories, instructional tools, and learning processes. Despite the potential benefits of innovations, their successful implementation remains a challenge. For innovation to significantly impact education, it must be embraced by a network of implementers— teachers, administrators, and policymakers—who possess the creativity, motivation, and autonomy necessary to enact change (Crichton, 2015). Negative socio-cultural trends, such as consumerism and the monetization of education, threaten the core purpose of educational institutions and hinder the development of students' creativity and innovative capacities. Effective leadership is crucial in navigating the complexities of education, as it empowers educators to embrace innovation, addresses socio-cultural challenges, and fosters a collaborative environment that prioritizes student development and lifelong learning. In the next section, I will present the leadership landscape, focusing on the theories and practices that will help us navigate the complexities of the future.

The Past, Present and Future of School Leadership

The evolution of school leadership is deeply rooted in historical and philosophical foundations that trace back to ancient and medieval times, continuing to evolve through the modern era. The intertwining of leadership and educational administration has significantly shaped the frameworks and practices seen in today's schools. Early discussions about educational leadership began in ancient societies, where the roles of educators and leaders were defined in relation to the values and needs of their communities. In the 19th century, prominent figures such as Horace Mann and John Dewey advocated the fundamental role of education in promoting democratic ideals and egalitarianism within society. They emphasized the importance of public schooling as a means to foster democracy and active participation among students, parents, and educators, and they highlighted the necessity for equitable educational opportunities, which were supported by tax-funded, locally controlled schools (Cohan, Howlett, & College, 2019; Mann, Horace, 2024). This perspective reflected the ongoing transition from an agrarian to an industrial society, underscoring the role of education in addressing societal changes and challenges. By around 1980, the transformation of educational structures and delivery methods marked a pivotal change in how leadership was conceptualized within the educational context (Townsend, 2024).

As leadership theories developed, new approaches have since emerged (transformational, distributed, transformative), reflecting the ongoing commitment of scholars in the field to equip leaders with competencies to navigate the complexities of modern schooling (Townsend, 2024). In recent years, school leadership has undergone significant transformations in response to many challenges, including the COVID-19 pandemic, ongoing movements for racial justice, and declining trust in public institutions (Hegseth, 2024). Traditional leadership models, often predicated on top-down approaches, have proven inadequate in addressing the complexities of modern educational environments. As such, there is a growing advocacy for more collaborative, adaptive, and equity-centered

leadership practices that can effectively meet the diverse needs of students, families, and communities (Kruse & DeMatthews, 2024).

Three pivotal themes emerge in discussions about reimagining school leadership: a) rethinking school structures, b) embracing culturally responsive communities, and c) developing transformative spaces within schools. Rethinking school structures includes addressing how policies and incentives shape the roles of educational leaders and ensuring that these structures support a vision of social justice and inclusivity (Leithwood, 2021); embracing culturally responsive communities encourages leaders to approach their work with humility, curiosity, and courage, fostering an environment that promotes continuous learning and innovative thinking (Allen, Kern, Vella-Brodrick, Hattie, & Waters, 2018). At last, developing transformative spaces within schools involves not just responding to crises but proactively developing strategies that empower educators and students alike to thrive amidst uncertainty (Fevre, 2024).

From Complexity Leadership Theories to Quantum Leadership

Within this ever evolving volatile landscape, reimagining school leadership necessitates grounding effective practices in sound theoretical frameworks. Two of the most current are complexity theory of leadership and quantum leadership. These two approaches to leadership share a core understanding of leadership as a dynamic and adaptive process that thrives in complex, interconnected environments. Both theories recognize that organizations operate within intricate systems influenced by numerous social, cultural, and technological factors. Complexity Leadership Theory is informed by complexity science, and it highlights the importance of understanding interrelationships within educational systems and the dynamics of feedback among various agents. These leadership frameworks emphasize the need for leaders to facilitate interactions and foster emergent behaviours conducive to innovation and adaptability, which are essential in navigating the uncertainties of contemporary education (Siemens, Dawson, & Eshleman, 2018). Quantum Leadership applies principles from quantum physics, suggesting that leaders must embrace uncertainty and interconnectedness in their approach, advocating for flexible, non-hierarchical structures that empower individuals to respond to changing circumstances and innovate collaboratively (Zohar, 2022). Both frameworks emphasize the importance of relationships and networks. Complexity Leadership Theory highlights the significance of social networks and interactions. At the same time, Quantum Leadership posits that everything is interconnected, and leaders must recognize and leverage these connections to foster collective intelligence and creativity. Both theories advocate for a learning-oriented approach to leadership. Complexity Leadership Theory promotes environments that encourage experimentation and learning from failures, while Quantum Leadership emphasizes the role of leaders in creating a culture of continuous learning and adaptation (Darling, & Shelton, 2001; Boxer, 2014).

Complexity and Quantum leadership theories ask leaders to make a mental shift in how they think and operate in modern organizations. Leaders aspiring from these two paradigms should be guided by certain principles aligned with the qualities of quantum and

complex adaptive systems. These are: a) acquiring self-awareness, b) acting from a vision and value-led beliefs; c) developing the skill of acting spontaneously, meaning not looking to the past for solutions to current problems; d) being holistic, meaning being able to see the larger picture of themselves, their schools and their constituencies, e) being humble, g) ask "Why" questions, h) celebrate diversity, i) learn from mistakes and turn problems into opportunities, j) showing compassion and k) having a higher sense of purpose to leave a positive mark on the world Mobus, & Kalton, 2015; Kashyap, 2019; Diamandis, & Kotler, 2020)

To put these principles into action, leaders can:

- *Cultivate an Open Culture* that fosters transparency and encourages open communication. This builds an atmosphere of trust and mutual responsibility among stakeholders.

- *Encourage Autonomy* by allowing people the freedom to self-organize, further enhancing their engagement and productivity.

- *Embrace uncertainty* as a chance for innovation and growth.

- Recognize the relationships and dependencies among various systems and individuals (*Interdependence*)

- Cultivate the ability to shift and respond to changing circumstances effectively (*Fuidity and Adaptability)*.

- Encourage teamwork and collective problem-solving across diverse groups (*Collaboration*).

- *Reject One-Size-Fits-All Approaches* by tailoring strategies to meet the unique needs of different contexts.

- *Create Vibrant, Inclusive Spaces* that welcome diverse voices and perspectives, thus, promoting inclusivity.

- Acknowledge the need for significant changes in practices and policies to meet evolving challenges (*Demand for Transformation*).

- *Address Growing Challenges* by tackling emerging issues proactively, ensuring responses are timely and effective.

- *Foster Democracy* by promoting democratic principles within educational settings, thus, empowering stakeholders.

- *Tap Human Potential* by leveraging the strengths and talents of individuals to drive progress and innovation.

- *Promote Broader Engagement* by involving various community members and stakeholders in decision-making processes.

- *Promote Continuous Learning* as it ensures teachers stay abreast of changes and innovations through ongoing professional development.

- *Utilize Technology* to support innovative thinking and streamline problem-solving processes, thus enabling teams to work more effectively and creatively.

Future directions

The evolving landscape of leadership, influenced by rapid technological advancements and complex societal challenges, underscores the importance of complexity and quantum leadership theories and practices, which emphasize adaptability, self-awareness, and interconnectedness. Leaders must adopt quantum thinking to engage innovatively with their organizations, fostering a culture of experimentation and openness. As the World Economic Forum highlights the need for global reskilling due to digital transformation, educational institutions must cultivate leaders who can navigate uncertainty and consider diverse possibilities in decision-making. Addressing modern leadership complexities requires collaboration across disciplines like neuroscience and business management and mentorship in quantum leadership to develop essential skills. Moreover, as automation increases, the human touch—characterized by empathy, emotional intelligence, and relational skills—will be vital for enhancing employee engagement and driving organizational success, positioning leaders to inspire their teams and cultivate a collaborative culture.

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Artificial Intelligent in teaching and learning

Stavroula Kaldi

I will start my talk with a biographical point of concerns about advanced technology and the impact on human life. I was undergraduate student at the Aristotle University of Thessaloniki when I first watched the brilliant movie of Blade Runner with the huge revolution of Replicas against humans. I was then puzzled about the year 2019 which would be ahead in my late adulthood. The British science fiction filmmaker Sir Ridley Scott was probably inspired by the workshops of John McCarthy in 1956 in the USA where he proposed that machines can be designed to simulate human action and behaviour. However, I kept walking as if society and technology was not there. And gradually I had to learn all the new technological advancements so as to be competent in my scientific field and profession! When I was conducting my postgraduate studies at Sussex University in the mid of 90s I met people who studied Artificial Intelligent (AI) and I wondered what was that course. To be honest, I do not remember what my friends had explained me then. From the expanded AI in the decade of 90s we are now learning about GenAI (Generative AI) and I am sure that by this time we are in the GenAI2 (AI-augmented Collective Intelligence (ACI) meaning that humans are in the loop as System 2 to complement machines' System 1.

Later on, I came across in my readings about the aspect of microchips from nanotechnology and during the first years of my lecturing I kept questioning my students: what would be your contribution to teaching and learning when microchips of bits of knowledge would be inserted in the human brain? Foreign languages would be probably one of the first fields of action! Today masses of information, knowledge and processes building can be produced in seconds by many AI applications!

AI and GenAI are increasingly transforming the landscape of education by personalizing learning experiences and enhancing teaching methodologies. AI-driven tools, such as intelligent tutoring systems, enable customized learning pathways that adapt to individual student needs, pacing, and learning styles. Research indicates that these adaptive systems can lead to improved student engagement and performance, particularly in subjects like mathematics and science (Baker & Inventado, 2014; Koedinger et al., 2015). Furthermore, research has shown that AI can assist educators by automating administrative tasks, providing insights into student performance through data analytics, and identifying at-risk students who may require additional support (Luckin et al., 2016; Fritz et al., 2020).

In addition to personalized learning, AI fosters collaborative learning environments through platforms that facilitate communication and interaction among students and teachers. For instance, AI can enhance peer feedback mechanisms and support collaborative problem-solving activities, which are essential for developing critical thinking skills (Rosé et al., 2019).

Moreover, in Sala-Pilco & Yang's (2022) systematic review of the main AI applications in education these were reported to be: predictive modelling, intelligent analytics, assistive technology, automatic content analysis, and image analytics. It is further demonstrated that AI applications help to address important education issues (e.g., detecting students at risk of dropping out) and thereby contribute to ensuring quality education.

In Zawacki-Richter et al.'s (2019) systematic review of research on AI applications in higher education (AIEd) four areas of AI applications in academic support services, institutional and administrative services were presented: 1. profiling and prediction, 2. assessment and evaluation, 3. adaptive systems and personalisation, and 4. intelligent tutoring systems. The authors concluded that there is a lack of AI research on critical reflection of challenges and risks of AIEd, the weak connection to theoretical pedagogical perspectives, and the need for further exploration of ethical and educational approaches in the application of AIEd in higher education.

AI has been widely applied to various educational technology platforms such as 1) Virtual Mentor, 2) Voice Assistant, Google Assistant (Google), Siri (Apple), and Cortana (Microsoft). 3) Smart Content, 4) Presentation Translator. 5) Global Courses, for example, MOOCs, Udemy, Google AI, Alison, Khan Academy, edX, Udacity, Coursera, etc. 6) Automatic Assessment, 7) Personalized Learning, 7) Educational games, 8) Intelligent Tutoring System (ITS) or Intelligent ComputerAided Instruction (ICAI) (Fitria, 2021).
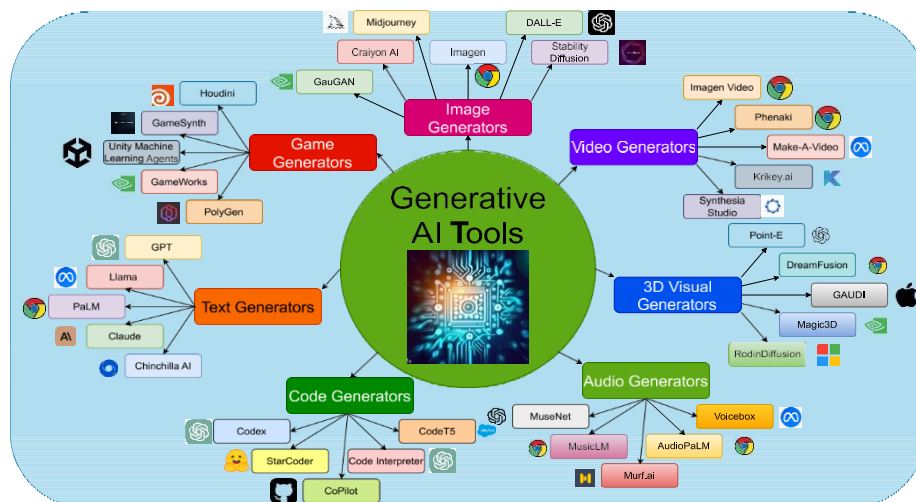
Figure 1. *Categories of GenAI products (from Mittal, et al., 2024).*

Some examples of the use of GenAI in Teaching and Learning

GenAI allows users to input prompts to generate new content, such as text, images, code, and other media.

Carnegie Learning's MATHia adapt in real-time to a student's performance, offering tailored exercises and hints based on their understanding (Koedinger et al., 2015).

AI-Driven Assessment Tools: Tools like Gradescope use AI to assist in grading assignments and exams, thereby reducing the workload for educators and providing faster

feedback for students. Studies indicate that such tools can improve grading consistency and fairness (Tharp & Henson, 2020).

Natural Language Processing (NLP) in Language Learning: students learn new languages by providing conversational practice and instant feedback on pronunciation and grammar. Tools like Duolingo employ NLP algorithms to adapt exercises based on user performance, enhancing the learning experience. Research suggests that such applications can increase language proficiency in learners (Vesselinov & Grego, 2016).

AI-Powered Learning Analytics: Platforms like Civitas Learning use predictive analytics to help institutions identify students at risk of failing and to implement timely support measures (Fritz et al., 2020).

GenAI-Based Teaching Tools:

➢ ***ChatGPT and DALL-E*** are two examples of popular GenAI tools.
➢ ***Knewton*** is an adaptive learning platform that personalizes educational content to meet the individual needs of students. It uses AI algorithms to analyze data from student interactions and adjusts the learning materials accordingly, promoting better learning outcomes. Research indicates that adaptive learning technologies like Knewton can significantly enhance student engagement and success (Murray, 2018).
➢ ***IBM Watson Tutor*** leverages AI to provide personalized tutoring experiences across various subjects. It employs natural language processing to understand student queries and offers tailored feedback and resources (Luckin et al., 2016).
➢ ***DreamBox Learning*** is an adaptive math program for K-8 students that uses AI to adjust lessons based on student performance in real-time. The platform not only personalizes learning paths but also provides analytics for teachers to track student progress (Rafferty et al., 2017).
➢ ***Querium*** provides AI-driven virtual tutoring for STEM subjects, focusing on high school and college-level courses. The platform uses machine learning to analyze student responses and deliver personalized hints and feedback. (Kumar et al., 2020).

These tools exemplify the integration of AI in educational settings, showcasing their potential to enhance teaching effectiveness and improve student learning outcomes based on research outcomes.

So, while we are heading fast from GenAI to the GenAI 2 the ethical and responsible use of AI is prioritized in the education sector. This could incorporate addressing concerns around privacy, bias, and transparency, as well as ensuring that the human communication during teaching and learning is not lost in the process, that the pedagogical relation amongst participants in teaching and learning is safeguarded. As educational institutions continue to embrace AI technologies, ongoing research is vital to ensure these tools are implemented effectively and equitably (Williamson & Piattoeva, 2020). Theoretical schemes must also be developed for the use of AI in the education sector. How many of us do we know that more than 40% of articles in three top educational technology journals were wholly a-theoretical (Hew et al., 2019)? Scholars like Noroozi et al. (2024) already suggest a shift towards more AI-inclusive curricula and teaching methods. However, this

optimism is tempered by the acknowledgment of the need for ongoing research to address the challenges and limitations identified.

Teachers can save more energy from planning content to instruct, from correcting tests, from making student and other administrative reports to invest in how to develop pupils' (a) lifelong learning skills such as critical thinking, communicative, collaborative and creativity skills, (b) positive attitudes for political action in peace and (c) human quality traits such as respecting others in solidarity, being loyal, gentle, optimistic, calm, able to compromise, to close gaps of communication, to care for sustainable development.

We cannot deny the efficiency and convenience of AI systems in our daily lives but the teacher's intelligence stays unmatched if we want future generations to stay tuned with the human values inherited for thousands of years. So, we need to place people at the centre of our attention and keep in mind the need for responsible and ethical implementation of any GenAI.

I let you now watch a remarkable advertisement using the metaphor of a machine trying to explain why humans are more important than machines.

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SYMPOSIA

SYMPOSIUM TITLE: Perspectives on Evaluation and Self-assessment as Practices for Training

SYMPOSIUM ORGANISER: JUAN VICENTE ORTIZ FRANCO

Limitations and perspectives of assessment in arts education. An analysis from research experiences in Bogotá, Colombia

Andrea Milena Ospina Barinas & Angela María González Vargas

Introduction

Art education is recognized as a fundamental dimension of comprehensive education. However, efforts to educate new generations beyond disciplinary knowledge remain limited. In the Colombian educational system, it is included in the overall curriculum of Basic and Secondary Education, aiming to complement the development of various dimensions of being: social, physical, emotional, spiritual, ethical, aesthetic, and psychological. This highlights a lack of concern about assigning it its rightful role, with continued privilege given to three areas: Spanish, natural sciences, and mathematics.

Assessment in the artistic dimension has posed a challenge for the adoption of strategies, methods, and uses of results, factors that become challenges in the work of teachers and curriculum organization. The research question is: What are the practices and intentions of evaluative processes in the field of art education conducted in educational institutions in Bogotá?

The aforementioned framework implies constructing well-founded proposals in which assessment is seen as a continuous, dialogical, and integrated practice, with a vision that intentions and uses of results are grounded in the Practical Rationality paradigm for education.

This research aimed to unveil the forms, practices, and strategies used by teachers from twenty districts of Bogotá, Colombia, based on characterizing the state of the art, a fundamental task for transforming current experiences in the assessment of art education.

Theoretical Background

This research is grounded in two theoretical axes: assessment and art education. Assessment is understood as a process of human nature; it is dynamic, dialogical, and continuous, using information for decision-making that contributes to students' life projects (Ortiz, 2023). It is viewed as a systematic evaluation process to understand the impact, effects, achievements, goals, and objectives of a project; identifying elements affecting their achievement to define strategies in teaching-learning processes. Moreno Tiburcio (2023, p. 27) asserts that "assessment is often conceived as a measurement, which tends to serve the purpose of certifying competencies rather than ensuring student learning." Álvarez (2001, p. 60) adds that assessment is meant to have formative functions; it serves both learners and teachers. Its purpose is to provide feedback on the process (Agency for Quality in Education, 2016, p. 10). The concept of Art Education originates

within the "field" framework developed by Pierre Bourdieu (2000, p. 205); applied to art, it redefines its concept as an area of knowledge linked to culture and comprehensive education, facilitating the development of creative ability and sensitivity; it stimulates divergent thinking, values originality and intellectual response, and approaches languages that enable skills to judge aesthetic values of artistic works (Rodriguez, 2000, p. 29).

Methodology

This research is of a mixed nature, framed in descriptive, analytical, and contrasting inquiry approaches. The population consisted of art education teachers from 20 districts in public and private institutions in Bogotá, Colombia. There are no statistics available on the total number of art teachers in the city. The sample consisted of 53 art teachers, one from a private institution and one from a public institution per locality, representative of the city's educational institutions. The research phases included instrument design, validation through judgment by five experts in Art Education, field application, data processing and analysis, and proposal construction. Data collection techniques included structured surveys with 25 questions. The methodology is interpretative, allowing immersion in the natural environment of schools and classrooms to observe factors influencing the arts teaching and learning processes.

Results/Outcomes

The results show that Art Education is marginalized in comprehensive education, as 60% of educational proposals are relegated to limited time slots, combined with other disciplines and focused on two artistic languages. 85% of teachers agree that the area is given minimal importance as part of comprehensive education, arguing that it should be reoriented in the curriculum towards holistic formation.

In educational institutions across twenty districts of Bogotá, 100% of teachers recognize that through the exploration of different artistic languages, it is imperative to strengthen art education as a means of expression and the proper use of leisure time.

Art education is understood as a process that can be embedded as technical and systematic learning promoting competencies in different languages studied, and education through the arts, proposing creative methodologies integrated into the curriculum to improve academic and social outcomes for children and/or youth (Bamford, 2009).

Artistic education in public and private schools in the city is currently battling unstable budgets, lack of coverage across the educational sector, and a constant struggle to be supported and valued. It was found that 65% of teachers without formal training in art education teach the curriculum, which is considered a lack of responsibility and a flaw in the educational system, severely impacting teaching-learning processes. Assessment tools and techniques focus on grading, selection, qualification, and exclusion. There is a lack of technical knowledge of the process, clarity, or conceptual appropriation regarding

forms and uses of assessment. Therefore, assessment should be adapted according to the needs, context, and particularities of students.

Conclusions/Discussion

Artistic work promotes critical and creative thinking in children, leading to meaningful learning experiences. The success of the arts curriculum largely depends on teachers, who are responsible for guiding comprehensive and efficient study plans to fully educate their students, where assessment for learning becomes a tool to improve teaching-learning processes. The role of arts teachers is not only to teach but also to update themselves in pedagogical strategies and assessment methodologies to strengthen pedagogical work and enhance students' talents. Sánchez Rodríguez (2014), in his Creative Assessment research, argues that it is part of the teacher's job to seek, research, insist, and innovate to strengthen the artistic language they dedicate themselves to. The path is not always easy. It is important for teachers teaching art education in Bogotá institutions to be trained in the artistic language they teach, to promote quality education. Findings lead to the conclusion that there are not enough elements to identify the relevance of art education as an integral part of education. The analysis of results provides evidence of the use of conventional evaluation methods, forms, and intentions through evaluation tools that in some cases rely on traditional practices favoring informal, improvised, and meaningless mechanisms for improving academic performance and education.

Keywords: Art Education, Assessment, Formative Assessment.

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The evaluation of learning: Reflections on evaluation practices with secondary and higher education teachers in Oaxaca, Mexico

Lucy García Reyes & Blanca Elizabeth Garza

Introduction

This work arises from the interest in knowing the perspectives of teachers of Higher and Upper Secondary Education in Mexico regarding the training, knowledge, and theoretical foundation they have on their evaluative processes applied to students to assess academic performance or learning results after a training process. This research contribution is a continuation of the proposal on the origin of evaluative practices, their sources of training, and the use of the results of the evaluation of learning, developed in contexts of Latin America and Portugal, by the research group made up of professors from Colombia, Monterrey Nuevo León, and Oaxaca, Mexico, one of its lines of research being transformative evaluative reflection.

The analysis is based on the results obtained from the instrument, conceptions, methods, use of results, and sources of training of teachers of Upper Secondary and Higher Education in the evaluation of learning applied in the state of Oaxaca. The data obtained are relevant for Mexico, which currently faces the challenge of moving from the Integral Reform of Higher Secondary Education (2008), which established a Common Curriculum Framework based on competencies, to the new educational paradigm of the New Mexican School (2017), which seeks to transform and modernize the country's educational system at all levels, with humanism as the axis of its development and implementation.

Theoretical Background

The Common Curriculum Framework for Higher Secondary Education (2022) presents seven paradoxes that face Mexican education that involve complex training processes for teachers and students. It is proposed to reorganize the education system through the New Mexican School (2022). To achieve this purpose, the articulation of initial education with higher education is required to train young people who transform themselves, their communities, and the nation, demanding a comprehensive vision in the emotional, physical, moral, aesthetic, and civic fields (2021). The sixth paradox is crucial for this research exercise, since it addresses evaluation and questions the validity of the

qualification as a measure of progress in learning. The assignment of numbers inevitably classifies, compares, and labels. The question: Why do we continue to use the grade as the main reference to evaluate the learning of students and teachers? It requires responses that promote and value learning from broad spectrums of possibilities. Formative evaluation needs to observe the trajectory of achievement, which must be focused on the learning process experienced by the student and oriented to provide feedback for improvement. According to Tuiran, an effective formative evaluation considers three principles: 1. The evaluation is integrated into teaching and learning processes. 2. Evaluation tests are used to advance learning. 3. Evaluation supports the self-regulation of students; and, consequently, self-assessment.

Method

The methodological approach used for this research is qualitative in nature, with an emphasis on the description, interpretation, and analysis of trends. The instrument used was adapted for the Mexican population and was previously designed at the Los Libertadores University of Colombia. Its original design contained terms from the educational context of that country that could make it difficult for Mexican teachers to understand some questions. Subsequently, steps were made at the state level through the General Coordination of Higher and Upper Secondary Education, Science, and Technology (CGEMSYSCYT) of the state of Oaxaca, an organization that, in addition to other functions, provides support to manage the link with the General Directors and Subdirectors of Higher Secondary Education and Universities, both public and private, including research initiatives. The instrument was applied through the Google Forms platform, through a request by each director to the educational centers to respond voluntarily and confidentially through a previously generated link. The answers were consolidated into a database managed by the coordinator of the Oaxaca headquarters. Finally, the participation of a sample of 723 active teachers was achieved.

Results/Outcomes

The population was made up of 723 teachers: 366 women and 357 men from eight regions of the state of Oaxaca. From the Central Valleys region, 204 teachers participated; from the Mixteca, 124; from the Coast, 103; from the Isthmus, 90; from the Sierra Sur, 74 teachers; and from the Cañada region, 54. Non-relevant participation was obtained from the Sierra Norte and Papaloapan regions. The highest educational level reached by the respondents is a bachelor's degree, representing 59%, while 35.5% have a master's degree, and a lower percentage holds a doctorate or university technician degree. 83.3% of teachers teach at the Upper Middle Level, and 15.8% at the University Level. In terms of teaching experience, most were in the categories of over 11 years or 7 to 10 years. Regarding the question, "Where did you learn to evaluate your students?" 229 teachers indicated that it was during their experience as students; 295 mentioned other scenarios, while 99 teachers said they learned to evaluate from their most demanding teacher, and 48 from the highest number of

disapproved students. To a lesser extent, they learned from more flexible teachers. The educational level where they mostly learned to evaluate, according to 14.1%, is in the university, followed by the baccalaureate and postgraduate studies, showing a low level of training by the educational system. 98.8% went to updating processes in evaluation. 69% of teachers have received training on evaluation through short courses or diploma courses. As for the most used evaluation methods, closed questions, individual and group presentations, written papers, participation, and attendance at classes stand out, evidencing traditional evaluative practices with a Technical Rationality approach, marginalizing evaluation as training.

Conclusions/Discussion

The teachers emphasized the importance of receiving evaluation training, highlighting the development of evaluation tools, questions, reliability of the tests, and self-assessment strategies. The ideas associated with evaluation were reflection and learning; the results are used to measure learning and feedback, identifying the persistence of numerical qualification as a synonym for evaluation. In terms of knowledge about assessment approaches for learning, the answers are related to the development of instruments, design and structure of questions, selection of the rating scale, use of results to qualify, and promotion of new learning, indicating that objective tests are a priority when evaluating learning. The most widely used evaluation methods are written exams, presentations, written papers, participation, punctuality, attendance, and portfolios. Although teachers have been trained to apply innovative teaching methods, the main focus remains on qualification as a measure of learning, especially in the College of Baccalaureates of Oaxaca (COBAO), which has always invested in continuous training. This research revealed that although teachers are using new active methodologies in their practice, there is still a long way to go, making it necessary to change the paradigm at the educational system level, aimed at recognizing evaluation as a key to educational improvement and quality; a foundation of institutional work and a teacher training system that addresses the task of evaluation as a transversal axis for training and learning.

Keywords: Students, Teachers, Learning, Evaluation.

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Do university professors assess their students with formative intent?

Armida Arizaí Riestra De La Cruz

Introduction

Learning evaluation is one of the problems that affect the majority of educational systems in Latin America and the world because it concentrates its practices and use of performance results on qualification, which leads to classification, selection, exclusion, approval, disapproval, rewards, and punishments. The evaluation as a pretext for learning has been marginalized from the academic spaces of universities, largely due to the limited training provided on the subject during the professional career. Those who access this privilege are limited to few academic spaces, and when the evaluation is addressed, they focus on how an instrument is designed and other purely technical aspects. This research sought to identify the training that university professors have on learning evaluation and the notions that underline them by contrasting theoretical references that expose the technical and practical components required in the evaluation processes, identifying the existing gaps, as a basis for proposing useful transformative actions for educational systems. This is required to implement a notion of evaluation with a formative approach, which argues for using the results achieved by students critically and as a means for learning, while focusing on training in the different dimensions of the human being and the organization of new experiences. Learning is an aspect that has implications for transformative pedagogical practices and for the issuance of judgments about students' academic performance in a fair, ethical, and technical manner.

Theoretical Background

The foundations supporting this research are: assessment, assessment of learning, and assessment as formation. Assessment is a practice as old as humanity, associated with the assessment of actions, achievements, and opportunities for improvement. Etymologically, it means to judge the value of something (Dictionary of the Royal Spanish Academy); it means to assess (determine the value of someone or something) based on criteria for decision-making; it is the action of estimating value or merit.

The assessment of learning is the evaluation of planned changes to serve educational action, being at the service of teaching and learning, interpreted as a formative opportunity. Moreno, T. (2016, p. 15), states that conceiving education as a result distorts the ethos of learning since educating is not reduced to products for consumption, but is a capacity to build and deconstruct oneself permanently. Assessment becomes formative when it is used to adapt teaching to respond to the learning needs of students; it must be, by the essence of the term itself, a formative act (Álvarez Méndez, 2008). Ortiz (2022, p. 50), states the need to recover assessment with formative intent as a practice that supports the

improvement of teaching and learning processes. It leads to identifying gaps to enhance new learning, recognizing different learning rhythms, interests, and ways of learning that must be evidenced in evaluative practices.

Methodology

The research sought to identify the appropriation by a sample of 167 professors from three universities in Colombia and one preparatory level institution in Mexico regarding notions to advance learning assessment processes: concepts, methods, and intentions, identifying the level of appropriation and its implications when making judgments, ethical and technical. The objectives focus on analyzing the training of teachers in Colombia and Mexico in learning assessment and contrasting them with theoretical references that expose the technical and practical components required. The research question was: What is the training that university professors have on the concept of learning assessment, methods, and uses of results? The methodological approach is qualitative, descriptive, and analytical. The population consists of 307 professors linked to programs of three universities in Bogotá, Colombia, and one in Mexico, characterized by being active teachers, with experience ranging from 3 to 11 years, from different disciplinary fields. The non-probabilistic sample consisted of 167 teachers: 70 from Mexico's preparatory level and 97 from Colombia who participated by completing an instrument, designed and validated through the judgment of three experts. Text analysis and open and axial data categorization were carried out.

Results/Outcomes

The results show how the majority of conceptions of assessment (21.6%) are associated with forms of knowledge measurement and tracking of learning outcomes (13.6%). A measurement system in grading and student assessment is evidenced with strategies, instruments, and didactics from a technical rationality. Professors assigned the function to the assessment instrument: observing, measuring, and providing feedback on learning (competencies, knowledge) (32.6%), obtaining information about learning (processes) and achievements (19.6%). It is evident that they use them to guide processes toward content verification, grades, exams, and learning verification; there is confusion of concepts about Self-assessment, Peer assessment, Hetero-assessment, associating them with techniques and instruments within a learning model.

Professors use assessment to measure knowledge and pass students (27.5%), change methods, techniques, instruments, and didactics (17.5%), identify difficulties, strengths, rhythms, and learning styles (14.2%), and evaluate teaching practice. Preparatory-level and higher education professors include a particular element as part of the assessment for their students, which is self-reflection and self-assessment. The results showed that assessment generates high levels of anxiety and stress in 69% of students; evaluative practices for 79.1% of teachers guide their processes toward content verification, with grades 82.5%, exams accounting for 81.4%, and verifying learning at 79.1%. The above

allows for the conclusion that teachers employ traditional assessment methods: exams, written assignments, class participation, attendance, and punctuality, all inscribed within Technical Rationality. Regarding the training attained by professors in the field of assessment, it is highlighted that 50.7% have no training in the field, 21.7% acquired it from demanding teachers who caused suffering, from training processes (15.9%), and from personal experiences (11.6%).

Conclusions/Discussion

Professors conceive the assessment of learning as encompassing strategies, instruments, and didactics within a process aimed at measurement, grading, and assessment of learning, i.e., with a quantitative approach. The measurement-based hegemony persists as a paradigmatic vision of assessment and is evident in the results of this research. There is still confusion between assessment and grading (Rodríguez, 2006, p. 26).

From another perspective, Álvarez Méndez (2004, p. 22) points out that applying a technical rationality approach in assessment does not transcend the what, when, and how of assessment, i.e., too much importance is given to the instrumental aspects of the process. From another perspective, there is the concept of assessment based on practical rationality, where the priority focuses on the purpose of assessment, who evaluates, and what are the ethical, moral, social, and economic principles that govern its evaluation. The function of assessment given by professors in preparatory and higher education is to measure knowledge and pass students, a practice that is reductionist, simple, and biased from what learning assessment intends, especially when talking about formative assessment that will have a future impact on the students' life goals.

It is essential to be aware of the teacher's responsibility in the exercise of evaluative practice; therefore, it requires that the training in learning assessment be taken as an ethical duty.

Keywords: Evaluation, Formative Evaluation, Learning.

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Difficulties and challenges of self-evaluation in teacher training programs in two universities in Colombia and Mexico

Yolanda González Guevara, Oralia Rentiera Rodrigez & Juan Vicente Ortiz Franco

Introduction

The process of self-evaluation has an impact on the quality of learning and has a close relationship with the achievements of the teacher's activity; it constitutes a transcendent research field because it is associated with the quality of education. Santos (2017) concludes, "Evaluation conditions the entire process of teaching and learning. Even the entire school model" (p. 23); the changes aim to promote evaluation as an opportunity for learning where self-evaluation is fundamental for student participation, fostering self-reflection, and promoting learning. The practices and uses of self-evaluation processes are identified with contributions from 72 teachers of undergraduate and master's programs in education from the Fundación Universitaria Los Libertadores and 50 from the Preparatory School of the Autonomous University of Nuevo León. The question sought to be answered is: What are the notions, forms of implementation, and uses of self-evaluation processes from the perspective of teachers from two higher education institutions, interpreted in light of evaluation as a learning opportunity? This study uses a qualitative methodology and a descriptive, analytical, and contrasting approach to identify and systematize uses and ways of advancing self-evaluation and contrasting them with innovative proposals on self-evaluation as a learning opportunity. The theoretical foundation is supported by contributions from learning evaluation with a formative function. The results aim to contribute to the use of self-evaluation as an integral part of evaluation with a formative approach.

Theoretical Background

Three axes structure the theoretical references of the research: evaluation, self-evaluation, training, and teaching. Evaluation, according to Santos (2007, p. 11) and De Camilloni (2015, p. 8), is a topic of difficult resolution due to different ways of conceiving, interpreting, and implementing it. Edward Wragg (2003, p. 14) states: "Evaluation has become so important in recent years that the word itself is saturated with connotations related to formality, anxiety, ritual, and imminent failure," terms under which students believe they are evaluated. Self-evaluation, as argued by López (2016), is a practice where the student evaluates their learning and provides evidence of their perception of themselves and how they want to be seen, as well as providing information about behavior that the teacher can hardly observe: concerns, feelings, and perceptions of their performance. Pedagogical training is the foundation of teaching practice, with the purpose of transformation in its different dimensions; it goes beyond the transmission of knowledge and aims at the integral

formation of the life project. Rodríguez (2004) highlights the importance of teaching work, since, after the family, teachers become people who influence the formation of new generations, where formative evaluation and self-evaluation are actions of teaching that allow the autonomous exercise of the individual to introspect on their achievements and limitations and project improvement actions.

Method

This research was oriented with a qualitative methodology and a holistic approach, considering that it exposes: "people, scenarios, or groups are not reduced to variables but considered as a whole" (Álvarez and Jurgenson, 2014, p. 24). The fieldwork involved 72 teachers from Master's programs (70%) and undergraduate (15.7%) programs of the Autonomous University of Nuevo León, Mexico, and 70 from Bachelor's and Master's programs in Education from the Fundación Universitaria Los Libertadores of Bogotá, Colombia. This research sought to identify the practices and uses given to self-evaluation processes with contributions collected from teachers linked to two universities. The structured question for the research is: What are the forms and uses given to self-evaluation processes by university professors? For the fieldwork, an instrument of mixed responses was designed and validated through the judgment of five experts for teachers on: characteristics of self-evaluation processes, achievements, limitations; similarities and differences; responses are contrasted in the light of the predominant approaches in self-evaluation tasks: Practical and Technical Rationality. For the application, a form was used with the Google Forms tool.

Results/Outcomes

The participating professors from the two institutions have over eleven years of experience and work at the high school and undergraduate levels, especially in Education Sciences. They mostly define self-evaluation as a process of self-reflection to assess learning from their own conception (60%). 30% of the 70 participants from the Colombian institution include terms in the definition: reflection on achievements and difficulties in a critical way. 10% involve self-evaluation as a tool to know the grade that another person has. When asked if they have had training in self-evaluation topics, most professors from the University of Nuevo León respond affirmatively at 74.3%, while in the Colombian university, 57% respond affirmatively. However, a process so vital within an evaluation for training, 70% of the total sample have not received training. Professors attend courses, diplomas, and conferences sporadically. Training in curricular plans does not exceed three academic spaces. 97.6% recognize that teachers must be trained in self-evaluation, as in the case of Mexico, 68.5% express not having bases and 63% in the case of Colombia. They justify this need to contribute to improving their teaching performance. The predominant forms for self-evaluation are closed-response questionnaires, oral and written tests, and portfolios, in the case of the University of Nuevo León (64.3%). Contrary to Los Libertadores, where questionnaires about achievements and gaps predominated (56%), individual, oral, and

written. Both groups of teachers acknowledge that there were changes in self-evaluation during the pandemic, 85.7%, where the family had extensive participation. There was an emphasis on awareness of self-reflection, the meaning of life, greater awareness of what was learned, and the value of being.

Conclusions/Discussion

Self-evaluation as autonomous and critical reflection needs to be expanded in all pedagogical practices of teachers; it must focus on an autonomously oriented and organized vision since there is awareness of the importance of the formation of critical thinking, autonomy, and self-motivation to overcome gaps inherent in human learning. The use of self-evaluation by the teachers in the study is between absent and scarce in the early educational levels of Colombia, while the same trend is observed with participating teachers in the study of Mexico: 65.5% received it at the Middle and Higher Professional levels. This trend allows concluding that it is limited in educational contexts. Those who have training achieve it on their own initiative and a minority group in master's training without it being a structural theme of the program. The topics most frequently required for qualification focus on techniques, instruments, and methods to self-evaluate their students. There is a consensus on the need to use self-evaluation to identify gaps in students (38%) and (29%) limiting factors of the teacher. As a practice inscribed within evaluation for training, it requires being assumed as an axis of integral formation. There was an absence of novel ways to be implemented; traditional methods continue to predominate, focused on measuring gaps, and in assigning a percentage weight of said participation in grading averages. The teacher continues to be the center of self-evaluation and decides when to self-evaluate.

Keywords: Evaluation, Teachers, Students, Self-assessment, Learning.

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Socio-emotionality and pandemic: impact on the family and educational context of Mexico and Colombia

Juan Vicente Ortiz Franco, Blanca Elizabeth Garza & Armida Arizai Riestra De La Cruz

Introduction

The development of humanity is characterized by changes that demarcate stages with transcendental events recorded in the memories of history and remain in the narratives of new generations. The crisis generated by the appearance of the Covid-19 virus unexpectedly affected all corners of the planet and the fields of human activity—its physical, social, emotional, and cultural dimensions. It surpassed the advances of science to control the global crisis. It was demonstrated that human capabilities are the only resource to face crises.

The effects on emotions are of great interest for research due to the consequences caused by confinement. The repercussions include an increase in violence, depression, anxiety, suicidal behavior, and stress intertwined with the effects of Covid-19. Emotions are the center of interest in the research carried out in two educational institutions in Bogotá and one in Mexico, based on the information collected by completing a survey by 97 families from two institutions in Bogotá, Colombia, and the participation of 49 families from the General High School of the Autonomous University of Nuevo León, Mexico.

The problem posed is: What were the effects of confinement on the socio-emotional development of families and on the learning of students? The results show a predominance of positive emotions such as satisfaction, confidence, enjoyment, and self-esteem. The negative emotions were associated with fear, shame, threat, hopelessness, and anxiety.

Theoretical Background

The theoretical foundations that support the research are socio-emotionality, the pandemic, and educational institutions. Socio-emotionality is part of the structuring dimensions of the human being and occupies an important place in development. According to Lange et al. (2022): "Human emotions can be defined as synchronized changes in multiple components in response to a relevant (social) stimulus, or as a complex reaction pattern involving experiential, behavioral, and physiological elements" (p. 85). Maturana (2002) maintains that emotions are the central foundation of human learning and coexistence (pp. 9-10). Emotions can be classified according to Keltchermans and Deketelaere (2016) by the categories of "positive," which produce pleasant emotional experiences, and "negative," which tend to make people feel bad or worse, reducing self-esteem and confidence.

The isolation assumed as a health measure occurs in a complex and uncertain context. Saavedra (2020, p. 94) addressed the impacts of confinement, pointing out that the region

has experienced the longest closure in the world, affecting interpersonal relationships, especially those between teachers and students. It has been found that the effectiveness of remote learning is low and heterogeneous during the pandemic. Heredia (2020) points out that "The pandemic we are going through due to Covid-19 has caused students to deal with feelings of isolation, frustration, boredom, anxiety, and stress; this brings with it a response of hopelessness, depression, and anger" (p. 19). Pedagogical practices, from the perspective of Ortiz (2021, p. 2), generated greater reflections, as it is a field of greatest impact.

Method

A qualitative approach guides this research, in consideration of what was pointed out by Hernández, Fernández, and Baptista (2006, p. 8). In this research paradigm, a problem is posed, the context is examined, observations are carried out, and the analysis is conducted in an inductive process consisting of exploring, describing, and generating theoretical perspectives. The type of research is descriptive since it is based on a call to families from six educational institutions in Colombia and one in Mexico, where spaces for critical and systemic reflection on the emotional effects during the pandemic were generated. The method is based on the collection of non-standardized data; a numerical measurement is not carried out; therefore, the analysis is not statistical.

The research proposed two objectives: to recognize the experiential dynamics of 49 families of high school students from the Autonomous University of Nuevo León and 97 from Colombia linked to two institutions in Bogotá, manifested in experiences and emotions that impacted during isolation; and to recognize new learning achieved by families during confinement. The research question is: Did the emotions and feelings that characterized the families' experiences during confinement influence the teaching-learning processes?

Results/Outcomes

The experiences that most impacted the lives of 83% of families during the pandemic are associated with coexistence in confinement, which allowed for sharing more time with family, learning about routines, participating in them, recognizing the value of family, and strengthening family ties. 15% of the responses correspond to the increase in conflicts, separation, violence, displacement due to the economic crisis, and loss of employment. The families of the high school students of the University of Nuevo León differ from the first group because, despite being in the same categories, their weight in order of importance prioritizes restrictions and isolation, adaptation to work and online education, concerns for health, and fear of contagion, along with the emotional impact and resilience in the face of challenges.

Confinement is considered a common experience for families, with many arguing that they feel they have lost freedom, friends, and living routines, as well as expressing grief, ignorance, and powerlessness to use and access technologies. Three experiences exhibit

a 12% response tendency and correspond to health, family finances, and employment situations, which generated fears and insecurities during confinement. Virtuality is indicated by 10% as a significant experience due to observing how little progress the students made; activities were concentrated on completing guides with insufficient guidance, limited synchronous sessions, and reduced learning outcomes.

Terms such as "technology," "implementation," "resilience," and "changes" indicate that the pandemic forced families involved in the research to quickly adapt to new ways of living, working, and studying. "Self-reliance" and the search for "solution options" suggest that many people had to learn new skills and find creative ways to cope.

Conclusions/Discussion

The study allows us to conclude how a large number of experiences impacted families, where the component of unity in all its expressions had fundamental value, strengthening unity, linking to home routines; joy in sharing and living together, learning to be tolerant, learning to live with death, overcoming anger and living healthily, learning to cook, organize and share household chores, and improve resilience. The negative emotions were focused on fears of experiencing confinement, loss of employment, facing changes in work routines, enduring the loss of family members, anxiety due to the risk of contagion, overcoming discomfort due to virtual classes, increased workload for parents, dependence on networks, television, and cell phones, lack of connectivity, low internet coverage, fear of unemployment, and family breakups.

In the high school families, it can be concluded from their experiences that learning during preventive isolation was varied and depended largely on the adaptability of the students, the support of the teachers, and the structure provided by the university. Despite the challenges, many students acquired skills, both academic and emotional, that will be useful to them in the future, while others experienced difficulties and deficiencies in their learning. The experience highlights the importance of finding balance between in-person and virtual education, as well as the need for emotional and technological support for students during periods of isolation.

Keywords: Socio-emotionality, Pandemic, Family, Education.

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SYMPOSIUM TITLE: Developing Diversity, Equity, Inclusion and Belonging (DEIB) Practices in Teacher Education

SYMPOSIUM ORGANISER: FERNANDO NAIDITCH

Developing DEIB Practices in Teacher Education

Fernando Naiditch

Introduction

According to the National Center for Education Statistics' the Condition of Education report (Budiman, 2020), at the beginning of the 2017 academic year, of the 50.7 million students enrolled in public schools, 26.6 million—more than half the student population—were ethnic minorities.

Teacher demographics, however, tell us a different story. 80% of teachers in the United States are still white (Budiman, 2020). The numbers demonstrate a large socio-cultural gap between the student population and their teachers, and they highlight an even larger gap in the languages, cultures, ethnicities, races, and

socio-economic status represented in the American classrooms. It is urgent to prepare educators capable of understanding and incorporating cultural and linguistic diversity in their teaching.

This presentation describes a Diversity, Equity, Inclusion and Belonging Framework that the researcher uses to prepare pre-service and in-service teachers who are now responsible for teaching increasingly diverse classrooms.

The project aimed at preparing all teachers to understand and address the needs of diverse students. Learning to teach across the lines of language and culture represents a challenge to many schools that are not prepared to engage culturally and linguistically diverse students (Banks & Banks, 2015; Ladson-Billings, 2009). Therefore, the project focused on developing teachers' knowledge, skills and dispositions to succeed in multicultural, multilingual classrooms.

Theoretical Background

In the United States, multicultural education developed due to the civil rights movement of the 1960s (Banks, 2004), and the focus is on reforming the nation's schools.

Gay (2004) recognizes the multitude of definitions which can vary in terms of content, focus, and orientation. Based on Banks' (2004) tripartite definition of multicultural education, she identifies the following categories:

- Multicultural education as a philosophy, concept or idea: a set of beliefs and values that represent ethnic and cultural influences on a group's lifestyles, experiences, and identities. Multicultural education encompasses cultural pluralism and educational equality and excellence.

- Multicultural education as a process: an approach to education that places multiculturalism as a continuous and systematic element within a more comprehensive

understanding of education. Multicultural education should not be developed as a method but as a progressive course of ideas and actions.

- Multicultural education as a reform movement: a structural and procedural educational change that reflects the larger societal change. Multicultural education focuses on empowering individuals towards social action and transformation.

Historically, the ways we understand multicultural education have evolved and developed to consider societal changes and evolution. Currently, the acronym DEIB is being used to refer to the education of diverse groups and the need to prepare teachers who can work across different aspects of diversity and develop pedagogy and curriculum that focus on diversity, equity, inclusion and belonging of all students, particularly marginalized student populations.

Method

This study focused on the process of infusing the Teacher Education curriculum with DEIB in a multicultural education course. Through a series of tasks that included autobiographical narratives, field experiences, and several weekly tasks that exposed students to different aspects of DEIB, the researcher assessed teacher candidates' growth in terms of knowledge, skills, and dispositions over the course of a year.

Practitioner action research (PAR) was used as both the data-gathering technique and the method of inquiry to engage all stakeholders to examine their practice critically and to improve it (Anderson, Herr, & Nihlen, 2007).

PAR provides an ongoing form of professional learning, which allows participants to constantly reflect on their practice by reassessing and transforming it. PAR is, therefore, a developmental tool for teachers and teacher candidates. In this project, participants engaged in a systematic and critical analysis of the tasks and how they approached them by identifying aspects that needed improvement.

Through journals, classroom discussions, interactive digital discussion boards and one-on-one meetings with the researcher, participants engaged in PAR while developing their understanding of the practice of DEIB.

Results/Outcomes

While engaging in the different tasks, students could identify areas of DEIB that they would either like to know more about or that they felt that they did not fully understand. Engaging in interactions outside of students' comfort zones through personal interactions in diverse communities was carefully scaffolded not only by theoretical aspects discussed in class but also by having students confront their perceptions of the world and their own biases and prejudices. Students were asked to engage in an autobiographical activity and to keep a blog or a journal to record their evolving thinking, feelings, doubts and questions.

The blog/journal writing also provided a safe venue for students to reflect on all the issues brought up by their experiences while performing community visits, interacting with

community members, and learning about local issues. Some students wrote about linguistic differences and how that affected their views on multilingual learners; others wrote about how hard it is to both understand and make yourself understood in cross-cultural interactions and communications. Still, others focused on the effects of race on the academic achievement of African American students after having interacted with students from such communities. Class discussions resulted from students' different experiences during the project and the course.

Students reported learning about reaching out to others, initiating conversations and interactions, and developing relationships in diverse communities while performing tasks that challenged them. Apart from having students intentionally experience DEIB in practice through carefully planned tasks, the most important emerging result is that students are developing an understanding of the so-called 'other,' particularly their different ways of knowing, communicating, interacting and relating to the world around them.

Conclusions/Discussion

For a classroom to be truly multicultural and inclusive, we need to replace an ethnocentric view of history that privileges what is considered 'mainstream' to incorporate a pluralistic view of a nation and its people, its multiple languages and distinctive cultures.

Our work on diversity education preparing teachers for implementing DEIB pedagogy in their classrooms illustrates the role schools should take to ensure inclusive and multicultural education, promote diversity, encourage the practice of using multiple sources of information, and consider different perspectives. Schools need to do more to prepare students for life in a world characterized by ethnic, cultural, linguistic, religious, and socio-economic diversity. Students need to see themselves represented in the curriculum and in all aspects of their education.

Therefore, culturally responsive teaching should be implemented across content areas. Whether it is by reading multicultural literature and questioning the literary canon or by developing a unit that focuses on social justice mathematics, teachers need to learn to find opportunities in diversity to include everyone in the curriculum, make content accessible and critical, meaningful and relevant, and ensure high-quality education.

Culturally responsive teaching is a major disposition and responsibility that teachers need to embrace to develop teaching and learning goals that promote respect and understanding, improve race relations, and protect civil liberties.

Keywords: Multicultural Education, Diversity, Equity, Inclusion, Belonging.

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Developing Diverse Fieldwork Opportunities for Teacher Educators

Frank Pignatosi

Introduction

Our national teacher residency program partners with different charter school networks and public school districts in the United States to scaffold an equity-centered, practical preparation directly in and around the classrooms where our residents learn to support all learners and become integral parts of their schools and communities. We believe that only by supporting whole school communities - and not only our residents within them - can we make a real difference in the education of all children.

Each school hosts clusters of pre-service resident teachers for a full year on a full-time teacher schedule. Most residents move from other locations across the United States and enter unknown communities. The first course explores learner identities and the contexts of learning and teaching, and we want to engage residents not only in the theory of community but also in active interaction with communities (Anzualda, 1990).

The culminating project of this course asks each resident to craft a digital Community Walk that requires them to spend some time in the neighbourhood surrounding the school where they will be teaching and take note of language, music, literacy resources, community organizations, businesses, community member roles, buildings, nature, art and creative expression, Funds of Knowledge, youth actions and interactions. Finally, residents are asked to make connections to the classroom learning they will be designing during the year. What do these Community Walks reveal to the residents, and what connections can they make?

Theoretical Background

Ladson-Billings (1995) urged educators to make teaching and learning relevant and responsive to students' languages, literacies, and cultural practices across categories of difference and (in)equality. Paris (2012) questioned whether "relevant" and "responsive" were sufficient and offered the framework of culturally-sustaining pedagogy to perpetuate linguistic, literate, and cultural pluralism by sustaining the cultural practices of learners. Irvine (2002) coined "cultural synchronization" or "lack of cultural synchronization," as the quality of fit between the teachers' and students' primary cultures, even when teachers apparently share cultures with their students.

The Community Walk project is designed to help developing educators explore how to gather knowledge of their learners and their communities and better position themselves to sustain the cultural practices brought to the classroom. If they are to sustain existing

cultural practices and make connections to their students' communities, what can they learn from those communities? Where should they begin? In addition, if the ultimate goal is to sustain the community beyond the school, educators must build a "community overlap, with a priority given to community sensibilities and histories" (Khalifa et al., 2015, p.25). Moll et al. (1992) shared the power of teachers entering communities, engaging directly with families, and learning about their cultural learning - their Funds of Knowledge. Emdin (2016) describes context's impact on content and emphasizes that teachers must begin by sharing the same community spaces as their students to craft meaningful and relevant lessons.

Method

Emdin (2016) identifies three steps educators need to take to teach young learners with context as an anchor - enter into the same social spaces as the learners, engage with the context, and then make connections between the out-of-school context and classroom learning. The Community Walk project echoes these steps, and we used a qualitative method to analyze what residents created. We looked at the final projects of three cohorts of residents over three years. We interviewed a select group of residents about their experiences approaching and developing the Community Walk project.

We did simple coding for patterns of engagement with the assignment prompts. We focused on the actual artifacts students gathered, the type of engagement (tourist-style walk, interviews with locals, photographs, videos, etc.), and the differences between residents who took a walk independently and those who did it in groups. We then interviewed some residents, months after the actual walk, to explore the impact of the experience on their classroom teaching and whether there were any specific examples of connections between the walk and classroom lessons.

Results/Outcomes

There is a great variety of engagement, from residents who truly grabbed the opportunity to learn about the communities surrounding their schools and others who relied more on the extant data about the communities. Some residents focused on monuments and public spaces, imagining field trips, while others spoke to people living in the community and explored social spaces such as stores and libraries, focusing on the lived experiences of the inhabitants. Some residents focused on the presence and access to cultural spaces in the neighbourhood and the quality of public transportation that could ensure mobility within and beyond the neighbourhood and speculated on the impact on students' lives (Anyon, 2005). Others took notice of the variety of languages spoken and evidence of multilingual learners and wondered how they would engage families whose first language was not English (Kleifgen & Garcia, 2018), how residents assigned value to the cultural practices and spaces ranged from a strong asset-based approach that recognized the cultural wealth of the community (Yosso, 2005) to a persistent deficit lens that identified problems that need to be fixed or compensated for. While many connections to classroom

learning began from the established curriculum content and identified community resources that could be used to make that curriculum relevant to students and their lives, some truly tried to build on the resources themselves and shared ideas for lessons occurring outside in the communities and potential for engaging student family members in lessons (Moll et al., 1992). Finally, a small number thought about doing community walks with their students and having the latter guide the teaching and the connection-making process.

Conclusions/Discussion

The Community Walk projects generate much discussion amongst residents, and the response ranges from excited discovery to discomfort. The latter, beyond the expected discomfort that some residents have for visiting neighborhoods where they feel like outsiders, also includes residents who actually live in the community and are concerned that certain biases about marginalized communities are confirmed or advanced by such an experience. This speaks to the importance of discussing the outcomes of any community projects in depth and the need to echo these discoveries throughout the entire coursework all year. Many residents report that the full impact and value of the project became clearer during the school year as their knowledge of students and their families grew, and they wondered whether the Walk project should occur later in the year or be repeated a second time. A few residents also benefitted from working in a school that does an active community engagement initiative each year before the school year begins, with teachers and administrators walking into the neighborhood and visiting families. The residents saw the Community Walk as a small version of that and were more accepting of the value of the walk. We hope to engage our audience in a discussion about the power of Community Walks for new and veteran educators and illustrate how they are not the challenge that many might face.

Keywords: Community, cultural learning, Culturally Sustaining Pedagogy.

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Understanding the Principles of Culturally Responsive Pedagogy

Dirck Roosevelt

Introduction

Ladson-Billings argues compellingly, as is well-known, that teachers who are prepared to help children "grow in knowledge of and respect for their own culture know enough about students' cultural and individual life circumstances to be able to communicate well with them"; thus, she continues, "they understand the need to study the students because they believe there is something there worth learning" (Ladson-Billings, 2001, p. 78, emphasis added).

In this paper, I argue that practice of teacher education that I and some colleagues call "Child Study"—a practice I have been documenting, analyzing, and theorizing for some time (e.g., Roosevelt, 2007, 2011)—offers a principled method for undertaking the study of students (one premised on the assumption of all children's capacity for powerful learning); at the same time, the practice typically serves as both invitation to and justification (in the richness of the experience and potency of the insights that arise) for such study.

Additionally, I consider the possibility, as both data and theory suggest, that the conduct of Child Studies may, under some circumstances, constitute something like learning love.

The primary context for my work is university-based teacher education in the United States. I have been a teacher educator and scholar of teacher education in such sites for over thirty years; throughout this time, I have developed, guided, and analyzed Child Study work. Over the past decade, inspired in part by this work, I have become increasingly interested in and concerned about the sorts of preparation future teacher educators do and do not receive, during their graduate study in particular; this interest has been strengthened and enriched by my colleagues in "InFoTED-NA [North America]." [1] In the body of the paper, I briefly describe Child Study, relate it to cardinal tenets of Culturally Responsive Pedagogy (Ladson-Billing, 1995a, 1995b, 2011), and provide illustrative selections from preservice teachers' Child Studies.

1. "InFoTED" is the International Forum for Educator Development, based in Europe; see: https://info-ted.eu/; also see Vanassche, et al. 2015. InFoTED-NA is an informal group of teacher educators founded by a US-based teacher educator affiliated with InFoTED-EU. It has neither website nor institutional affiliation; its members are actively involved in practice and scholarship of teacher education. Two key members articulate its purpose as « to address the need to better understand the work of teacher educators and to provide a holistic gestalt or ecology of learning to teach teachers that teacher educators can use as they enact 'design, advocacy, and leadership functions' (Roosevelt, et al., 2023) throughout all facets of their work. The goal is to make the tacit visible and begin creating a

data-informed language to describe and define our work as teacher educators » (Frances Rust and Diane Yendol-Hoppey, personal communication 7/8/23).

Theoretical Background

My inquiry here is informed by theories of human capacity and democracy (which I regard as interdependent and mutually reinforcing). I draw here on John Dewey, who understands democracy as a set of propositions about human capability, community, and conditions of worthwhile human experience, not merely a set of procedures for governing. Practices of schooling for democracy, in turn, are predicated on assumptions about human capability; see, e.g., his insistence that democracy "is a way of life controlled by a working faith in the possibilities of human nature" (1939/1938, p. X, emphasis added). Gloria Ladson-Billings similarly finds that what distinguishes the excellent teachers she studied in the course of developing her theory of Culturally Relevant Pedagogy— "the common feature they shared"—despite their various differences, including racial ones, despite "the variety of teaching strategies they employed" (Ladson-Billings, 1995a, p. 484) was their "fundamental belief...that all of the students could and must succeed." (Ladson-Billings, 1995b, p. 163, emphasis added), a premise whose centrality to her theory is impossible to miss. My third essential theoretical resource is Patricia Carini, whose "Descriptive Processes," developed at the Prospect School (see Carini, 2000; Roosevelt, in press), were foundational for Child Study, who invokes and demonstrates, repeatedly, "the presence of human capacity, widely distributed, and everywhere witnessed to by our human works," and then again:

The works of children are both ordinary and extraordinary. They reflect a widely distributed capacity to be makers and doers, active agents in the world and their own lives; to be, as Jay Featherstone said, poets of their lives (Carini, 2001a, p. 20).

In my work, I have begun, as I continue here, to explore inter-relationships and implications of these ideas on each other and the theory and practices of teaching and of teacher education, including Child Study (see, e.g., Roosevelt, in press, 2007, 2011). The essential, germinal premise of Child Study as a piece of practical inquiry for aspiring and other teachers is that they can and must, as we all can and must, recognize a need and develop a desire to come to know "the other" (however similar or dissimilar they may at first appear to us); equally fundamental is the understanding, also directly relevant to all of the arguments herein, is that it is possible, from a position both of humility and of belief, to create meaningfull (fallible, provisional, etc. – but not empty) understandings of others, including those we perceive to be different even radically different from us.

Method

The paper is conceptual/theoretical with a strong empirical component. The latter is provided by data drawn from my students' (preservice and early career teachers') work in Child Studies conducted over different periods in different contexts. My analyses of that

work are both descriptive and interpretive, an approach deeply informed by Carini and her colleagues at the Prospect School (e.g., Carini, 2000 & Roosevelt, in press).

Results/Outcomes

Description, as Carini practiced and theorized it, is and entails the creation of a relationship with those persons or phenomena (never "objects") being described, and is (can be, should be, in any human context we might imagine), an act of respect—a form of loving attention; perhaps, ultimately, a form of love. See, for example, her finding that, "To describe teaches me that the subject of my attention always exceeds what I can see... Describing I am in relation to... To describe is to value" (Carini, 2001b, 163-4). It perhaps goes without saying that within this position, we are never talking about children or students as abstractions, suppositions, or points on a chart; we are talking about them as real, specific, palpable human subjects. In a similar spirit, consider William James, early in the last century: "No one sees farther into a generalisation than his knowledge of details extends," he declared, and, at a later point, "'Mr Blank, you are totally uneducated,' (said) to a student who propounded to him some glittering theoretic generality" (in Menand, p. 131).

Repeated reading and analysis of Child Study work seems to reveal that in the most successful examples (of which there are many), the student/prospective teacher/teacher has in some way "given themselves over" or "surrendered" to the sense or "aura" (Benjamin, 1969, 1999), force, the integrity, and the value of the "other," the one being "studied." This appearance or phenomenon of "giving oneself over" is well-named in that it entails an intuition, at least, and perhaps a realization, that one cannot completely, nor ever, grasp the other person's fullness of meaning, one can in no way possess or appropriate them. However, in US or "western" culture, there is still much in the sense of looking that turns out to contain a thirst to have. A similar sense of surrender or giving over is sometimes spoken of about profound experiences of art, the experience of wonder, and so forth. (See, in these respects, Walter Benjamin, 1969, 1999; Caroline Walker Bynum, 2001; Dewey, 1939/1989; Roosevelt, 2011; and Rebecca Sullivan, 2023.) Indeed, I find that not only do many (and all of the most powerful) Child Studies that I know suggest this kind of "giving over" of the self; I find that the Child Study work seems to foster such (intellectual, moral, pedagogical) acts. Finally, it increasingly seems that this particular process of descriptive inquiry often entails something very much like, or, in fact, coming to—learning to—love the child/young person/learner.

Conclusions/Discussion

It seems odd that a "method of inquiry" (in this case, Child Study) could in some ways be, or even merely suggest, a lesson in love. But if we change "method" to "practice," it does not seem so strange: All manner of practices of caring, attending, accompanying, and the like, do, after all, regularly inspire strong feelings, including—though not invariably—feelings of love. There is obviously much more to explore here. Part of that exploration will

have to entail, I think, a deliberate effort to resist all of the dichotomies that follow from or amount to the thought–feeling dichotomy. Here, another of Ladson-Billings' lucid claims seem relevant. Of those exemplary and inspiring teachers (who knew they needed to "study" their students to teach towards their substantial, generative, and not by the teacher to be known as limited capacities), she writes:

They believed their work was artistry, not a technical task that could be accomplished in a recipe-like fashion. Fundamental to their beliefs about teaching was that all students could and must succeed. Consequently, they saw their responsibility as working to guarantee the success of each student (Ladson-Billings, 1995b, p. 163).

Keywords: Child Study, teacher inquiry, teacher education, CRP.

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SYMPOSIUM TITLE: Teacher wellbeing as a seminal aspect of imagining possible futures of teaching and learning

SYMPOSIUM ORGANISER: TARA RATNAM

Teacher wellbeing as a seminal aspect of imagining possible futures of teaching and learning Teacher wellbeing: The case of Pakistan

Meher Rizvi

Introduction

While the reforms in teacher education have been rapidly increasing at a fast rate in Pakistan, the improvement at the school and classroom level is not even remotely comparable to this rate. Research points to outdated teaching practices, lack of quality and availability of pedagogical material, and teacher shortages (Baron & Bend, 2023). The teachers seem to disagree with the notions that appear to de-professionalize the profession. Past studies have found teachers defending their profession, considering themselves confident and capable professionals. They also voice their concerns about the stress that the myriad of reform agendas has caused (Rizvi & Elliott, 2007). Teachers demonstrate their resilience even when many work in deplorable conditions. Most public schools lack many necessary health-related facilities. There is a lack of proper drinking water availability in the schools. Classrooms are overcrowded, congested with dim lighting, and poorly ventilated (Aziz, 2015). The COVID-19 pandemic further deepened teachers' challenges as they struggled to cater to children's needs with limited resources and inequitable access to technology. Teachers' resilience points to teaching as an emotional endeavor (Hargreaves, 1997) infused with passion. It is important to realize that enthusiastic teachers are still in the minority. The question is whether we want to lose this minority or we want them to remain committed to their profession. The question is tied to teachers' wellbeing and will be unpacked in the paper.

Theoretical Background

Teachers' wellbeing has always been a concern, but it gained further momentum during the post-COVID-19 pandemic when teachers were pushed to do more work to fill the learning gap. In a country like Pakistan, where the innumerable top-down reforms had already developed considerable stress among teachers, demands to cover the learning loss while addressing the needs of the individual learners have added to teachers' stress and brought issues pertaining to teachers' mental and physical health to the forefront.

These are exacerbated when most teachers work under appalling conditions following a compliant mode with very little reward or recognition.

The theoretical framework is based on the premise that there is a need to move teachers from exhaustion to the energized state. Even amidst challenges, a teacher who experiences a strong sense of purpose, feels valued and respected, and enjoys interacting with students and colleagues can still have high wellbeing.

The literature points to various factors that contribute to teachers' wellbeing. These include teacher engagement, school environment, colleague support (Pei et al., 2022), organizational support, personal capabilities, professional relationships (Nwoko et al., 2023), and positive workplace milieu (Sohail et al., 2023). There is a need to make an informed assessment about what measures are being undertaken to cater to teachers' wellbeing in a meaningful manner.

Method

The paper draws insights from two research projects: a qualitative multiple case study project completed in 2003 and a quantitative survey design project completed in 2023 (Cresswell, 2009). The 2003 project resulted in the formulation of twelve principles for sustaining and further enhancing teachers' professionalism, and the 2023 project resulted in the identification of the specific measures that had been taken to enhance teachers' status and professionalise the profession. The former employed unstructured to semi-structured interviews with school teachers from Karachi, while the latter used data that emerged from nationwide self-reported questionnaires administered to school teachers across different regions in the country.

The paper will compare and contrast the constructs related to teachers' wellbeing in order to fathom what teachers view as significant for enhancing their sense of professionalism and what measures are currently being taken to address teachers' concerns and cater to their wellbeing in a meaningful and judicial manner. The twenty-year gap in the findings points to the extent to which the measures are futuristic and meet the current requirements.

Results/Outcomes

This paper will focus on the findings relating to the four currently applicable principles.

Principle one from 2003 research states that teachers will be more willing to enhance their professional capabilities if given time and support to transition from resistance to appropriation and development. In 2023, we found teachers complaining about the lack of support and respect for the teachers in general. Regarding whether teachers are trusted to use their professional judgement and expertise, 9% reported that they were not trusted at all, and 51% reported that they were trusted to some extent.

The second principle reveals that it is essential to transform schools into collaborative cultures so teachers can provide each other with emotional support and reduce tensions. In 2023, when we asked the teachers if they were encouraged to work collaboratively in teams with each other, 7% of teachers responded that they were not encouraged at all and 39% responded that they were encouraged to some extent.

Principle three states that teacher professionalism is enhanced when school accountability and inspection are introduced with sincere consideration for teachers' problems. In 2023, many teachers have reported that they are held accountable through

inspection and supervision (59%) and external measures such as appraisal and tests (64%).

The fourth key principle is that teachers need new working conditions in order to further develop their professional capabilities. In 2023, many teachers (45%) complained about the lack of resources like drinking water, lighting, ventilation, and sanitation, and 16% said nothing. Thirty per cent (30%) of teachers reported that they could not ask for revisions in their conditions of employment from the relevant authorities, and 25% of teachers chose to remain silent.

Conclusions/Discussion

The comparative analysis of the measures taken to foster teacher professionalism and professional status reveals that factors facilitating teachers' wellbeing may have been the intent of the various measures. However, these are not reflected to a great extent in teachers' workplaces. There is sufficient evidence that suggests that unless teachers' voices, needs and aspirations are considered (Korthagen, 2017; UNESCO & International Task Force on Teachers for Education 2030, 2024), the goals of quality education will remain unachievable. Evidence suggests that teachers should be seen as autonomous professionals, not mere executors of plans in changing times.

It is important to realize that the initial stages of a reform initiative may have a stressful impact on teachers, which later, passing through resistance and appropriation, may prove to be an enriched learning experience for teachers (Helsby, 2000). It is important to help teachers make a successful transition from resistance to development, mainly when they work in challenging conditions. The government must consider whether it should change its priorities and redirect resources from other budgets to education.

There is a need for sustained support for teachers' autonomy through an inspection system that is collaborative rather than confrontational (Day, 2000). The accountability system must be rigorous (Fullan, 1999) and transparent so that the blame does not automatically fall solely upon the teachers for not performing but also upon those whose job was to intervene and provide teachers with professional support to help them perform better.

Keywords: Teacher wellbeing, trust and support, collaborative cultures, working conditions, transparent accountability system.

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Teacher wellbeing as a political issue while fighting for a future worth living

Luiz Sanches Neto

Introduction

Teachers need to be treated as potential change agents because the change decision is ultimately theirs, regardless of others attempting to influence their positions. Since teachers are at the teaching frontline, interacting directly with their students, they are irreplaceable and deserve the greatest respect as "others' demands can only get to students through teachers and teachers of teachers" (Ratnam & Craig, 2021, p. 7).

Such agency strengthens the teaching profession collectively on the one hand but, on the other hand, individually adds the burden of being accountable for their own decision-making and ways of inquiring about the practice as teacher-researchers either teaching at schools or university settings. Developing inter-collegial and critical friendships between teachers and professors can contribute to sustaining professional wellbeing in the academy and schooling systems (Garbett & Thomas, 2020). This investigation explores how a knowledge community of teacher-researchers has been promoting critical friendships among and beyond its original members (Sanches Neto, et al., 2022). Using artifacts produced by them — such as methodological tools, instruments and educational processes entangled in their publications from 2005 until 2024 — such as thought-provoking questions, comments, reflections and criticisms, the objective is to identify concerns on wellbeing while they thrive politically to create a future worth living, as well as worth both teaching and learning.

Theoretical Background

Being a teacher-researcher means that we become teachers every day through our practice and reflect in action perennially, which has political underpinnings (Freire, 1996). For Mockler (2011), interconnections between the external environment of politics, personal experience and professional context configure the teacher's identity. Although teacher identity refers to the autonomy and development of each teacher, at the same time it also concerns collaboration with peers (Iza et al., 2014). Therefore, there is a collective dimension to teacher identity and a sense of commitment to the knowledge community, as teacher-researchers seek to overcome teaching as a solitary profession to join a community and dedicate themselves to reflecting and thinking about education (Sanches Neto, et al., 2022). Teacher wellbeing emerges as an aspect of teacher professionalism. The idea of well-living (Quijano, 2012; Santos, 2015) could be connected to the unexplored political sense of teacher wellbeing. For well-living to be an effective historical realisation can only be a complex of social practices oriented to the democratic (re)production of a

democratic society, therefore, a mode of social existence with its specific historical horizon of meaning (Quijano, 2012).

Well-living is radically an alternative to the global coloniality of power and to the still hegemonic euro-centered (i.e. a paleness-centred way of living) modernity (Santos, 2015). In other words, well-living can only make sense as an alternative social existence, as a decoloniality of power.

Method

This paper emerges from a collaborative self-study interested in critical pedagogy and exploring how to enact more socially just educational practices. The author has been a member of the aforementioned knowledge community for about 19 years (2005–2024), and the group has provided a safe space for sharing and discussing incidents critical to their teaching (Sanches Neto, 2022, 2023a, 2023b). However, issues of wellbeing have not been specifically investigated by them. Four original members from the community participated in the self-study and collaboratively analysed the data sources from previous publications. Therefore, meta-analysis procedures have been used in this paper to clarify the connections between the themes already discussed by the teacher-researchers and their wellbeing. Self-study of teacher education practices (S-STEP) is a form of inquiry that is broadly characterized as improvement aimed, interactive, employing a range of primarily qualitative methods and undertaken to make its findings available to the professional community (LaBoskey, 2004). In terms of its potential for our work, we are drawn to wellbeing — better understood as well-living about our context of political advocacy and teaching for social justice — and personal politics issues in particular. In this paper, we question ourselves — What political issues affect our wellbeing the most as teacher-researchers? Through discussion, we identified the recurring themes — related to wellbeing and politics — that permeated the different critical situations. Then, we provide an overview based on our empirical work about teaching themes entangled with socially just practices.

Results/Outcomes

The following themes arose through the analysis process as they impact the wellbeing of teachers as either teachers or teacher educators. The first theme is the realisation that educating teacher-researchers towards social justice through the practicum experience will always be fraught. The second theme is recognising and appreciating the diverse realities experienced — by practicum students and collaborating teachers — regarding whether students should be obligated to practice teaching in public schools due to our strong opinions on their merits. The third theme that emerged is the significance of fostering a culture of respectful collaboration within teaching networks. This encompasses the university professors overseeing the practicum, the collaborating teachers, and the students themselves and requires open and critical dialogue amongst all parties. While acknowledging and respecting the autonomy and freedom of students to learn, it is

imperative not to use this as an excuse for disregarding the importance of political engagement and the value of education in public schools.

Conclusions/Discussion

Our main conclusion is that learning from the practicum is key for students themselves becoming teacher-researchers, prompting both political and wellbeing concerns. While working as teacher educators, "learning to learn about the practicum" (Thomas, 2017, p. 165) is important so we can support the students' criticality and foster their social justice initiatives. In this sense, we emphasise the criticality of two main contributions from Sanches Neto et al. (2023b). Firstly, as an example of the collaborative method we have used to generate alternative perspectives through self-study research. Secondly, recognise the social injustices that are deeply seated in teacher education in general and specific subjects — such as physical education teacher education (PETE) — particularly. How this impacts our assumptions, practices, and decisions may apply to other contexts. Above all, it is distressingly common to encounter injustices within Brazilian societal and educational structures. It is crucial to be mindful of the risk of perpetuating these injustices because they impact teachers and educators well-living and wellbeing. This awareness should extend to any teacher-researcher who is genuinely committed to promoting social justice.

Keywords: Self-study, critical friendship, artifacts, social justice, politics

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Teacher wellbeing and the emotional dimension of teaching: Findings from research carried out in Portugal

Maria Assunção Flores

Introduction

Existing literature has pointed to the complexity and interplay of the variables impacting teachers' work and lives in many parts of the world where the rise of performative cultures through increased accountability and imposition of standards (Sachs, 2016), the compliance of teachers with the demands of performance policies and the tyranny of audit (Lo, 2012), and the decline in teacher autonomy and an environment of distrust (Sachs & Mockler, 2012) have been identified. More recently, the outbreak of the COVID-19 pandemic has brought about profound changes in teachers' work as a result of the forced and abrupt shift from face-to-face to remote teaching due to the compulsory closure of schools in an effort to mitigate the spread of SARS-CoV-2. The long-term effects of such a changed scenario have indelibly marked the realities of teachers' work and lives in many parts of the world. This chapter reports on findings from two studies carried out in Portugal before and during the COVID-19 pandemic to illustrate key themes that traverse teachers' work and need to be considered in discussions about the nature of teacher professionalism. This paper draws on a nationwide study focusing on how teachers experience changes at school including the pandemic and the post-pandemic time. The goal is to look at the experience of professionalism in context, the role of emotions, and how they affect teachers' work and lives.

Theoretical Background

The investigation of teachers' professionalism needs to go beyond its normative perspective and include the equation teachers' views and experiences of professionalism in context (Flores, 2020). Tensions between managerial/top-down understandings of teacher professionalism and the individual, collegial and contextualized responses to the changing nature of teaching have been reported (Day, 2017). Looking at policies that have affected teachers' work in the Portuguese context, Estrela (2014) contends that old and new professionalisms may be identified as representing, at the same time, drawbacks and progress in the teaching profession. She asserts that teacher professionalism remains a sensitive issue and warns that teaching might be seen as a risky profession or a profession at risk or, on the contrary, it may be seen as an opportunity for teacher reprofessionalization (Estrela, 2014). Similarly, Sachs (2016) identifies the factors that shape teacher professionalism: performance management and performance cultures, increased accountability, and the continued imposition of teacher standards. Teaching is an emotional practice (Hargreaves, 1998). Emotions entail an individual, private and psychological dimension, as well as being socially constructed and situated in relations (Zembylas, 2007). They concern not only personal dispositions and commitments but are

also a product of given ways of organizing teaching (Hargreaves, 2001). Emotions are, therefore, key to understanding how teachers perceive school reform and educational change, how they view their role and identity, and how they experience teaching in a particular context.

Method

A national survey was carried out in which 2192 teachers participated. They came from all sectors of teaching and were experienced teachers. Most of them were female (82.2%) and older than 45 years (78.7%). Such figures are in accordance with official data. The questionnaire included open and closed-ended questions concerning aspects of teachers' work and lives. Data were analyzed through SPSS and thematic content analysis. The invitation to participate and the link to the questionnaire were sent to teachers via their professional associations, unions and teachers' centers in mainland Portugal and the Islands. The Ethics Committee for Research on Social and Human Sciences approved the project.

Results/Outcomes

Findings illustrate the inner tensions of being a teacher: the focus on teaching and students' learning needs and wellbeing, on the one hand, and the pressure for immediate results within a logic of greater accountability and control on the other hand (Ben-Peretz, & Flores,2018; Flores, 2020). Teachers feel overwhelmed by policy initiatives and the greater demands and pressures over their work associated with the increased bureaucracy and endless reforms, which impact their subjectivities and understanding of professionalism (Gewirtz et al., 2009). However, positive elements were also found when teachers referred to their work with students.

They talk about energy, motivation, satisfaction and willingness to carry on. At the center of their professionalism are their core professional values, particularly the moral and social purposes of teaching, care, dedication and commitment to students' learning and wellbeing. Such findings point to the relational teaching dimension and the "ethics of care" (Noddings, 1984).

Conclusions/Discussion

Teachers should have a say in the definition of their professionalism but also in the direction and focus of their professional growth. Teachers participating in the study acknowledge this when they identify professional learning as one of the key aspects of their work. The experience of being a teacher during the COVID-19 pandemic has also entailed a learning process that teachers tend to appreciate despite the challenges they had to face when they were obliged to teach and work together in changed circumstances. Therefore, relevant support, including time and resources, and appropriate opportunities for professional development are crucial to enhance more collaborative professionalism

(Hargreaves and O' Connor, 2017) and to expand new spaces for joint professional learning and collective action. As Darling-Hammond and Hyler (2020) assert, there is a need to invest in high-quality educator preparation, transforming learning opportunities for professional educators to match current needs, supporting mentoring and the development of new teacher roles, and creating time for educators to collaborate with each other and key partners. While the COVID-19 pandemic has exposed the fragilities of education systems, it has also provided an opportunity for professional learning and enabled the emergence of creative and contextualized responses that need to be continued. However, for this to happen, it is necessary to go beyond contingent and temporary responses to a crisis in education such as the one that the COVID-19 pandemic has imposed on teachers. It requires the consideration of teachers' voices, their capacity for action, and investment in policies of teacher education that are consistent and congruent with sophisticated and complex views of teaching and teachers' individual and collective agency.

Keywords: teachers, teaching, emotions, professionalism

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Teacher wellbeing in the U.S.: Pressing toward the future

Cheryl J. Craig

Introduction

Conducted in the fourth-largest American city, this research draws on storied data collected over a 20-year period marked by increasing neo-liberalism and managerialism (Craig, 2020a). The influence of organized school reform on teachers' knowledge was the focus of inquiry, however, stories relating to teachers' wellbeing also emerged. The same thing was true of narrowing the classroom space (Craig, 2009) and teacher resilience (Craig, & Merksamer, in press). The original research method, narrative inquiry (Clandinin & Connelly, 1990), was used to gather, analyze, and synthesize a story constellation (Craig, 2007) from an urban campus. Eagle High School's constellation was then serially interpreted (Craig et al., 2018; Schwab, 1954/1978) with teacher wellbeing in mind. The inquiry into the narratives began with teachers expressing ownership of their practices (Craig, 2004) and ended with their disillusionment (Craig, 2020b). Critical important to this study is the primacy of experience, the relationship among experience, education, and life, and teachers' "stories to live by" (Connelly & Clandinin, 1999), teacher identity expressed in narrative terms.

Theoretical Background

Dewey's (1938) theory of experience and Schwab's (1973) curriculum commonplaces frame this inquiry. For Dewey, experience informs both life and education. Experience has three simultaneously interacting qualities: temporality, sociality, and place. To Clandinin and Connelly (2000), "... experience grows out of other experiences, and experiences lead to further experiences...each [experience] has a past experiential base and leads to an experiential future". (p. 2)

This study's second pillar is Schwab's (1973) curriculum commonplaces: teacher, learner, subject matter, and milieu. These commonplaces ideally function as equally important parts in curriculum-making. The teacher commonplace captures what teachers bring to curriculum enactment. The learner commonplace includes students or teachers involved in professional development. Subject matter refers to a single discipline, several of them, or a theme like school reform. The fourth commonplace, milieu, depends on which aspects of context are studied.

Method

According to Clandinin et al. (2018, p. i), "narrative inquiry [is about]...stories lived and told by individuals...[who] are embedded within cultural, social, institutional, familial, political and linguistic narratives." It is both a personal experience and a relational research method. Mirroring human experience, it has three commonplaces: interaction (personal

and social), continuity (past, present, and future), and place (Clandinin & Connelly, 2000). For narrative inquirers to commingle these dimensions of teacher experience, they use three analytical tools: broadening, burrowing, and storying and re-storying. Each interpretive device plays a different function in crafting teachers' "narratives of experience" (Connelly & Clandinin, 1990). Story constellations are the research form (stories of teacher—teacher stories, stories of schools—school stories, stories of reform—reform stories) (Craig, 2007). In this work, it was serially interpreted after the fact. Serial interpretation increases explanatory power and gives findings added heft. It affords deeper discussions of 'encompassing idea[s]' and involves 'talking across' (Stone, 1988/1997, p. 2) or 'see[ing] across' (Clandinin, 2013, p. 131) educators in hindsight.

Results/Outcomes

This "dragon in school backyards" constellation features Principal Henry Richards, Teacher Liz Clayton, and Teacher Abbie Puckett. Henry repeatedly told the Eagle faculty, reform representatives, and parents that Eagle had a fire-breathing dragon in its backyard. He would warn: "We had better prepare for the dragon...the accountability system...." He sensed imminent danger.

Henry Richards focused on the district while his teachers supported "the growing percentage of [youth]...drained by life circumstances." Liz Clayton described Henry in this way:

Henry...trusted in the professionalism of his teachers... He would never make us do anything perfunctory. He believed we knew best how to teach children...He saw us as possessing special knowledge of curriculum . . . Henry put a circle of protection around us...

Eagle High School received a significant reform movement grant, which delighted everyone. The faculty felt that Eagle students could authentically learn instead of having "what people do in service of testing/practice testing" forced on them. Liz described the first reform planning meeting as follows:

We teachers were responsible for the whole thing. We developed it... Everyone kept saying: ''I never knew that teachers could be so supportive of one another... We physically acted out what we were doing. We were the pieces.

Henry could not protect Eagle indefinitely from the increasing pressures of the accountability system. The teachers initially stood their ground, as Abbie exemplified:

....it was an epiphany for me... what I saw was that I could be a good teacher in spite of the forced agenda ... if I was willing to be reflective... There are many forces we can't control...In the midst..., I can do very well in my classroom. (Coppola,1999-2000)

But the testing agenda tightened its grip. Eagle had a showdown with the dragon. Liz explained:

We received our scores today. We went down... Poor Henry. I could not help but cry...Is this one hurdle we cannot span? I feel responsible. How do we shout change is good when our

kids flounder with standardized test scores?... But...the test is very real and somewhat controls our lives . . .

After the testing debacle, Henry said that the school district was sending "a very prescriptive way.... down the tubes..." Before it happened, however, he resigned and became a principal in a higher-ranked school system. As for Liz, she took early retirement. Abbie later left early as well due to a non-work-related illness.

Conclusions/Discussion

Schwab (1983) declared that everything in schools "relies on the health of the teacher..." Others spoke of "teacher welfare" and the need for "healthy teacher[s]" (Symonds & Ford, 1952). In Eagle's story constellation, the testing dragon from the milieu commonplace breathed fire, throwing the teacher and learner commonplaces out-of-whack, and diminished what the subject matter commonplace could achieve.

Liz began with a secure "story to live by." However, she felt challenged when she realized that the testing mania "controls...lives." Abbie held her own, too. She likewise named the "forced agenda" and "forces we cannot control."

No one mentioned that Eagle was undergoing one of the most dramatic transitions of any American high school. Not only were 800 students added to Eagle's (3000+) roll, but its dominant student population had flipped. Abbie and Liz were part of the campus's "halcyon days," but now they were "losers." The dragon attack had not only affected students' and Henry's futures, but it profoundly affected the teachers' wellbeings in the high stakes, winner-takes-all environment.

This paper shows how students' and teachers' "lives narrow[ed]" because too much emphasis was placed on the paradigmatic (Bruner, 2002, pp. 26-27). While this revelation is a gain for the research method, it is a sad loss to education as a human endeavor. Still, this research provides rich ideas that could produce more meaningful, applicable results that would directly impact practice and move education more fruitfully into the future.

Keywords: teacher wellbeing, mediation, deficit view, teacher autonomy, dilemmas

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Teachers' work conditions and their wellbeing: Insights for reimagining possible futures of teaching

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Introduction

Teachers in India have the enormous task of fulfilling independent India's striving to correct historical injustices of social segregation and educational exclusion by providing equity education to about 250 million students enrolled in our schools from grade one to twelve. The complexity of teachers' work is not appreciated, and they become easy targets of harsh criticism and blame for poor student outcomes, making a direct causal link between student performance and teacher quality.

This presentation foregrounds the voice of the teachers to understand the challenges they face in fulfilling the responsibility of teaching to equity they shoulder:

1. What are the challenges teachers face in the social context of practice that negatively impact their wellbeing?

2. What is the nature of support teachers need to exercise their autonomy?

Theoretical Background

Using Vygotsky's cultural-historical theoretical perspective, this study presents the developing cultural, historical, and social situation in which teachers' practice is embedded and its interrelation to teachers' lived experience to provide an understanding of the resources and constraints that shape the development of their thinking and practice and its impact on their work and wellbeing. For the scope of this study, data from critical dialogue with eight teachers using semi-structured interviews helped establish the link between their lived experience and the "genealogy of context" of their work.

Results/Outcomes

Findings show that negotiating the tension between the uniform outcomes expected by authorities and the diversity of students they have to deal with requires differentiated teaching. Teachers are kept busy with non-academic responsibilities that take away their time from teaching. Teachers must handle multigrade and also manage students with special needs. They are not trained for either. Teachers are constantly threatened by politicians who issue statements in the media that teachers will lose their increment if the percentage of pass falls below the expected mark.

Conclusions/Discussion

Teachers are like the cogs in the wheel of a historically developing system that reduces them to servile curriculum implementers. The pressure and indignity of teachers' work erases their identity and agency and has a negative impact on their sense of self-worth and wellbeing.

Teachers' voice need recognition. Teachers need an environment where they are respected as competent persons able to think and exercise their autonomy by building humanising relationship with them.

Sub Theme 1

Future Perspectives on teaching and learning

Student teachers' experiences during teaching and learning with the use of digital technology

Renata Čepić, Jasminka Mezak & Petra Pejić Papak

Introduction

Teaching through didactic games represents an innovative approach that utilizes digital technology (DT) and facilitates active collaborative student participation in the educational process. The digitization of contemporary societal contexts demands competencies for the effective application of DT for educational purposes. During their initial education, student teachers acquire competencies for a curriculum approach to teaching students in lower primary school grades. In achieving the curriculum teaching outcomes in a course focused on technology use in classroom instruction, students actively design thematic teaching activities employing DT. Students' reflections on their learning experiences during the teaching process serve as a key impetus for quality shifts in their professional development. Relying on a qualitative research approach, this paper aims to gain an understanding of student teachers' learning experiences during the creation of didactic games in a collaborative learning process. Accordingly, the study will analyze: (1) teaching scenarios created by students for planning teaching activities using digital tools; (2) descriptions of designed activities for the interdisciplinary topic "Use of ICT"; and (3) students' reflections on the potential future of teaching and learning with DT in an innovative environment. The research utilized teaching scenarios, self-reflection forms, and reflective essays from a sample of 33 second-year primary education student teachers at the Faculty of Teacher Education, University of Rijeka (Croatia). The results of the qualitative analysis indicate the potential of using DT in the creation of didactic games during collaborative learning and teaching, with significant implications for improving student teachers' learning outcomes.

Theoretical Background

Modern technological society, the rapid advancement of ICT, and new learning strategies pose challenges in educating new generations of students (e.g., Hoić-Božić et al., 2019; Mezak & Pejić Papak, 2019; Rončević & Vrcelj, 2019; and others). Suprayogi & Valcke (2016) suggest that contemporary teaching processes include the application of various strategies, diverse learning activities, and individual student monitoring to achieve learning outcomes. The National Curriculum Framework in Croatia (NOK) marks a shift in the approach to and method of curriculum planning, emphasizing the development of student competencies. Six interdisciplinary themes (Personal and Social Development; Health, Safety, and Environmental Protection; Learning How to Learn; Entrepreneurship; Use of Information and Communication Technology; and Civic Education) highlight the importance of developing student competencies. The use of DT in teaching, along with the

interdisciplinary topic "Use of ICT," enables the variety and integration of multiple learning activities. Designing teaching scenarios with DT involves planning educational activities that emphasize the correlation of subjects and the application of acquired skills and knowledge in real-life situations (Mezak & Pejić Papak, 2018). Contemporary teaching should focus on problem-solving while considering students' interests, experiences, needs, motivation, prior knowledge, and creative abilities (Čepić & Pejić Papak, 2021). Developing autonomous and reflective professional teachers, who through their professional competency foster independent knowledge construction and personal growth of students, is a demanding but necessary process (Čepić, 2020; Čepić & Kalin, 2017; Čepić, Kalin, & Šteh, 2019).

Method

Participants: Second-year student teachers from the Faculty of Teacher Education at the University of Rijeka, enrolled in the mandatory course "Computer in Classroom Teaching" (N=33) participated in this research.

Materials and Instruments: The research included the use of teaching scenarios, student descriptions of designed activities for the interdisciplinary topic "Use of ICT," and student reflections on the future of learning and teaching.

1. Teaching Scenarios: Students planned a teaching theme using digital tools, which they would implement with their students according to a prepared teaching scenario template.
2. Descriptions of Designed Activities for the Interdisciplinary Topic "Use of ICT": Based on the curriculum of the interdisciplinary topic "Use of ICT," students designed and described activities for all four domains of the interdisciplinary topic, proposed digital tools, and learning   outcomes.
3. Student Reflections: Students provided their personal reflections on two questions: (1) Imagine and describe the future of learning and teaching with DT; (2) How do you envision an innovative learning environment where contemporary pedagogical approaches to teaching can be realized? This was conducted through a Google Forms template.

Procedure and Data Analysis: The research was conducted in two stages during 2023 and 2024, with qualitative data analysis performed in both stages.

Results/Outcomes

In the created teaching scenarios, students utilized various teaching methods, with verbal, demonstration and game methods being the most frequent. Individual and collaborative work forms were commonly used alongside frontal teaching, which was predominant in the introductory part of activities. For student motivation, digital tools such as Canva, PowerPoint, and YouTube were frequently used; for activity implementation, tools like Mindmeister, Wordwall, and LearningApps were employed; and for evaluating activities, Kahoot and Wordwall were commonly used. In the descriptions of designed activities for achieving outcomes of the interdisciplinary topic "Use of ICT" from the curriculum domains (functional and responsible use of ICT, communication and collaboration in a digital

environment, research and critical evaluation, creativity and innovation in a digital environment), the domain of research and critical evaluation proved to be the most challenging, while the domain of creativity and innovation in a digital environment was the most   stimulating   for   students'   creativity. In student reflections, the importance of an innovative learning environment and an encouraging atmosphere was emphasized, along with the necessity for balancing contemporary   and   traditional   teaching   approaches.   Students   imagined   the implementation of contemporary pedagogical approaches in an innovative learning environment as an interactive digital platform that enables personalized, experiential, and collaborative learning using virtual tools. According to students, an innovative learning environment should include flexible spaces with modular furniture, technology such as interactive boards and laptops, and centers for various forms of work. Student teachers' learning experiences using DT contributed to their increased engagement and motivation, improved mutual interaction and collaboration, and the dynamism and efficiency of the teaching process. The implementation of flexible and innovative learning methods using DTs can be expected to have positive effects on the professional development of student teachers during their initial education.

Conclusions/Discussion

This research aimed to understand student teachers' learning experiences during the creation of didactic games in a collaborative learning process. Digital technology is integral to contemporary education, and the experiences student teachers gain in applying these technologies during their initial education can profoundly impact their future professional learning and development. Student teachers demonstrate high levels of creativity and adaptability in applying different teaching methods, forms of work, and digital tools to achieve pedagogical goals and foster collaborative learning. They also recognize the challenges that come with technology use, particularly in the domain of research and critical evaluation, which was the most demanding for students, indicating the need for additional support and resources. An innovative learning environment that includes flexible spaces and advanced digital tools can significantly enhance the educational process, provided a balance between new and traditional teaching approaches is achieved. Despite the challenges, it is essential to find advanced and innovative teaching methods that contribute to student engagement and efficiency while maximizing the advantages that DT brings to the educational process in order to achieve higher quality in initial education and professional development of student teachers. Based on the presented findings, it is possible to conclude that the used teaching scenarios, descriptions of designed activities, and student reflections contributed to a more flexible, innovative, and effective learning and teaching process and to the professional development of student teachers.

Keywords: Collaborative learning, digital technology, reflection, student teacher, professional development.

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Cultivating mindfulness skills in school settings: Preschool teachers' perspectives

Panagiotis Stamatis & Eleni Nikolaou

Introduction

There is a growing interest in enhancing students' socio-emotional skills within the modern educational systems, as the rates of mental health disorders have increased in preschool and school-aged children. Teachers are required to handle daily stressors and face new challenges due to contemporary social phenomena such as bullying etc. Within this context, mindfulness skills are considered important as they enable students to develop self-control, self-regulation ability, executive functions and stress management skills (Parker et al., 2014). Mindful practices can foster socio-emotional development and functioning of preschool children (Sun et al 2021). They can enhance prosocial behaviour, inhibitory processes of self-regulation as well as perspective-taking which enable preschool children to perceive the perspectives of others and detect their emotions (Berti & Cigala, 2022). In addition, teachers' profession is associated with high rates of stress and burn-out. Teachers often experience negative emotions, emotional exhaustion and classroom management issues. The awareness of their emotions may contribute to realizing their causes and consequently this can foster emotion regulation (Chang, 2009). Mindfulness elements, such as observing, are associated with social competence, emotional regulation, and lower levels of behavioral problems. Teachers who are more activated to observe the present experiences are more able to detect externalizing and challenging behaviours (Jeon et al., 2022).

Theoretical Background

Mindfulness is characterized by a heightened awareness which derives from focusing on the present experiences in a non- judgmental manner (Kabat-Zinn, 2003). Individuals who have developed mindfulness skills tend to concentrate more on their internal and external experiences and are more acceptive toward their feelings and thoughts (Mischenko & Jennings, 2019). They understand better their internal processes and their effect on their interactions. They have a greater perception of emotions, thoughts and a greater awareness of others' perspectives (Jennings et al., 2019).

Mindfulness-based programs such as MasterMind improves self-regulation, emotion control, decision-making and enhances relationships. Elements of these programs are the awareness of the body as well as awareness of feelings and thoughts. This program was found to be effective in reducing aggression and promoted behaviour regulation (Parker et al., 2014). There is a positive association between self-efficacy, relationship with students, level of mindfulness and engagement. Self-efficacy predicts mindfulness. Mindfulness is a predictor of the engagement of teachers which is an important aspect of their profession

(Moyano et al., 2021). A mindfulness-based socio-emotional program Mindkinder program enhances psychosocial adjustment of kindergarten students, their non-verbal development, visual perception and other neuropsychological variables (Moreno-Gómez & Cejudo, 2018). Pan et al., (2022) found a relationship between mindfulness and subjective wellbeing and suggest that kindergarten teachers should have mindfulness courses for enhancing their professional development.

Method

Day by day are increasing the voices of scholars who stress that the education of the future, at the level of teaching and learning, must no longer be based on the traditional methods of copying, repetition and painstaking memorization, but on modern methods based on interpersonal relationships and interactions that occur in the classroom between teachers and students and more generally, in mild forms of activities that are consistent with the pleasant teaching climate and promote the calm mental state of students (Smith, J. 2024; McCallops et al., 2021; Burnham & Essa, 2019). Students should get to know themselves better, learn the best way to manage their emotions and the emotions of others, in conditions that promote mental and spiritual health at school and in the family (Stamatis & Nikolaou, 2020). Calmness, empathy and mindfulness are three basic keywords, three fundamental social skills, the cultivation of which is expected to act as driver of academic progress of children both during the school period of their life and beyond as pillars of ensuring a calm family and professional life, without conflicts, achieving their wellbeing (Deniz et al., 2018). Within the framework of present case study, the opinions of 30 public kindergarten teachers are investigated as they stated in an interview, regarding the activities they implement in their classroom trying to enhance soft social skills development and utilizing mindfulness as a teaching tool.

Results/Outcomes

The answers to the distributed questionnaires were subjected to a descriptive and interpretive analysis with reference criteria the international literature and the curriculum for preschool education recently published by the Greek Ministry of Education (Government Gazette 687/B/10-02-2023).

According to the statements given to the questionnaires by the 30 kindergarten teachers of public kindergartens who participated in this study, the majority of them (86%) lack accurate knowledge regarding the concept of mindfulness, although this concept appears more and more in the preschool education curriculum as a fundamental technique for cultivating the social-emotional development of preschoolers and despite the fact that they consider themselves to have sufficient knowledge of this concept.

This result is surprising as the kindergarten teachers claim in their statements that they are sufficiently aware of the concept of mindfulness which, as they themselves declare, they have included specific activities in their daily teaching activity in the classroom. In fact, only a relatively small percentage (13%) of preschool teachers seem to have introduced

the technique of mindfulness in the teaching method that preschool teachers use in order to facilitate preschool children to know their emotions and themselves more broadly and to develop social skills that they will contribute to their personal and social development, with the long-term goal of wellbeing and the promotion of their mental health.

Conclusions/Discussion

Promoting mental health and wellbeing are key objectives of modern education systems and fundamental goals for 21st-century education. In the framework of the present study, the views of public kindergarten teachers were investigated with the use of a questionnaire, regarding the activities they carry out in their classroom with the aim of developing soft social skills, using mindfulness as a teaching tool.

As it appears from the results of the study, the participating kindergarten teachers, despite the fact that they declare knowledge regarding the concept of mindfulness, nevertheless find it difficult to describe teaching activities related to it.

From the answers to those questions that tried to detect the range of kindergarten teachers' knowledge about the concept of mindfulness and its introduction into the daily teaching process, it is found that, in fact, most kindergarten teachers know only a minimum about the concept of mindfulness and its contribution as a teaching technique in cultivating the development of children's mental health and wellbeing in the long term.

The conclusions of the present study reveal that kindergarten teachers in public, Greek kindergartens need theoretical and practical training in the concept, technique of mindfulness and its introduction into the classroom environment, as well as in a series of soft skills development, strategies, teaching techniques and methods in order to keep up with the international trends of modern preschool education, contributing more to the improvement of their provided educational and teaching work.

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Experience and Attitudes of Russian Students – Future Teachers and In-service Teachers towards the Use of Artificial Intelligence

Gulnara Gutorova & Albina Drozdikova-Zaripova

Introduction

Recently, in connection with the rapid development of Artificial Intelligence (AI) and its widespread introduction into education, questions concerning the experience of use and attitudes of participants in the educational process towards this technology have become especially relevant. Despite the fact that AI may significantly alter various aspects of education in the near future, the experience and attitudes of Russian students – future teachers and teachers towards this technology remain insufficiently studied.

The use of AI in teaching can significantly facilitate this process and make it more accessible and interesting. However, despite the broad possibilities of AI, it does not guarantee its effective use by teachers an improvement in the quality of teaching (Mercader & Gairín, 2020). Moreover, research works show that the successful introduction of new technologies into the teaching process depends largely on teachers' own attitudes towards these technologies (Kim & Kim, 2022; Sasota et al., 2021).

Pre-service and in-service teachers should be well-prepared for the changes in the education caused by the introduction of AI into it, therefore it's quite important to assess and compare their experience and attitudes towards AI. This can also be useful for analyzing how to implement AI learning in teacher training process. Hence, the aim of this study was to evaluate the future and present teachers' attitudes towards the integration of AI in education and their experience with tools based on AI.

Theoretical Background

Artificial intelligence is a technology that enables machines to perform tasks that typically require human intelligence, such as learning, problem-solving, and decision-making. Recently, AI has been increasingly integrated into educational systems to help enhance learning outcomes and personalize education for students (Nipun et al., 2023). AI-powered tools can analyze student data, personalize teaching methods, provide individual recommendations for improving learning progress, assist teachers in developing more effective teaching strategies and automate administrative tasks (Slimi, 2023; Tiwari, 2023).

According to a number of studies, the most significant factors influencing the adoption of digital technologies in the classroom are teachers' willingness and motivation to adopt them (will), their skills and competencies in this area (skill), and the availability of digital tools for use (tool) (Hancock et al., 2003; Sasota et al., 2021). At the same time willingness and motivation depend on attitude, whereas the development of skills and competencies is influenced by experience in the use of technology.

Although there are a considerable number of studies evaluating the perception and attitudes of teachers and students in different training fields towards AI (Polak et al., 2022; Chan & Hu, 2023; Alzahrani, 2023), questions regarding the comparison of the pre-service teachers' and in-service teachers' attitudes towards AI, taking into account not only their experience in using AI, but also their age and the length of their teaching career remain poorly investigated.

Method

A set of complementary methods was used in the implemented research: analysis of psychological and pedagogical literature, generalization; a confirmatory experiment, the questionnaire method and methods of statistical data processing.

The questionnaire was developed by the research group in the ISATT network study "Integration of AI-based tools as part of teacher training: a step towards digital inclusion?" using the Google forms. The questionnaire included sections assessing teachers' and students' – future teachers' - attitudes towards AI and their experience of using it in teaching (teaching practice for students), as well as in everyday personal use. The content of closed and open questions and evaluation scales for teachers and students coincided.

The study was conducted at Kazan (Volga Region) Federal University, Russia in April-May 2024. 152 second- to fourth-year students– future primary school and English language teachers took part in the experiment. The age of the students was 19-25 years old. The study also involved 121 elementary school and secondary school subject teachers in Kazan. The age range of the participants was from 20 to 60 years old. Most of them 43,8% and 23,1% are representatives of age groups from 51-60 and 41-50 years respectively. The average working experience of teachers is 21.73±12.95 years.

Results/Outcomes

The study showed that students – future teachers and in-service teachers have an increased interest in the use of digital tools for both educational and personal purposes (4±0.9 and 4.31±0.96 points respectively due to 5-point scale). They are aware of the possibilities of AI in personal life and professional sphere. Among the main digital tools used, 23.7% of students highlighted various AI tools, while 21.2% of teachers highlighted a variety of educational online-platforms. In the last six months, about 50% of teachers and 81.5% of students expressed interest and desire to deepen their knowledge in this area, for this purpose teachers attend AI courses as part of their professional development; students take both training courses and self-study on AI. Most often students (66.7%) and teachers (47.1%) use AI as a working tool, when preparing teaching materials, searching for information, generating new ideas, writing texts, developing tests, educational videos and games. In pedagogical practice, about 40% of students and teachers had initial experience in using AI at the stage of planning and development of lesson content, while 36.7% of teachers and only 21.7% of students demonstrated the use of AI at the assessment stage. Students and teachers were found to identify the benefits of using AI in

different areas of education (p≤0.01), for different academic disciplines, and set different goals for using AI in lesson planning (p≤0.01). Respondents consider it necessary to develop the use of AI in education because it lightens the workload, makes it convenient and simple solving educational tasks. At the same time, they critically assess the possibilities of AI and about 80% note possible risks in the use of AI in education. About 70% of respondents agree with the need to adapt to AI taking into account modern educational requirements.

Conclusions/Discussion

The study shows that the majority of students – future teachers and practicing teachers have a positive attitude towards AI and actively use it for both educational and personal purposes. Many teachers recognize the potential of AI to improve the effectiveness of the educational process and are willing to integrate it into their work similar to the findings in Polak's et al., (2022) and Kim's (2022) studies. The study also confirms the findings of Almaraz-Menéndez et al. (2023) that students are generally aware of the possibilities of AI and express willingness to continue their education in AI. Students have more experience in using different AI-based tools than teachers and are more interested in deepening their knowledge about AI. Students' attitudes towards AI are influenced by their experiences of use, which can shape their perceptions and future interactions with the technology (Chan & Hu, 2023). These findings highlight the importance of providing students and teachers with hands-on experiences and realistic use cases to enhance their understanding and acceptance of AI technologies in education.

Thus, in the near future, education will be impossible without the use of AI by all participants of the educational process. Effective implementation of AI tools in the educational environment will be most successful when there is a synthesis of awareness of the importance and positive attitude to AI learning, motivation and readiness of teachers to use AI in the educational process and their mastery in various AI tools.

Keywords: Artificial Intelligence (AI), in-service teachers, pre-service teachers, students, digital tools.

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Changing Roles of Teachers in Modern Education (Russian Experience)

Liliia Karimova & Roza Valeeva

Introduction

In the past, the traditional teacher was the main source of knowledge in the school and his role was to instruct, supervise, evaluate, and organize his students. The teacher's word was like an inescapable law; it was the ultimate truth. Most Soviet school teachers were oriented towards teaching children the basics of scientific knowledge using the reproductive method, which was based on the reproduction of textbook text. The complexity of today's world due to its changes, global and local challenges, parents' expectations, and various educational reforms, calls for a revision of the problem and, perhaps, a new definition of what a teacher has become and what expectations society has towards them. We stick to the definition of Levitan who believes that the role of a teacher is "a set of normatively approved prescriptions (requirements) imposed on the professional behaviour of a pedagogical worker who is controlled by the representation of himself [sic] and others about this role, about the necessary actions in a particular pedagogical situation" (Levitan, 1994). However, due to globalization and the introduction of new standards, the Russian teacher has begun to perform new roles and functions: Teacher-consultant - helps the child to find ways to solve problems; Teacher-moderator: reveals the student's potential and creative opportunities; Teacher-tutor: provides pedagogical support to the student; Teacher-psychologist - takes into account the student's age and individual psychological features.

Theoretical Background

The problem of the role of the teacher's personality in education is multifaceted and related to many diverse studies in the field of psychology, anthropology, and general personality theory. The role of the teacher has been defined differently in each historical epoch according to the pedagogical concepts. Humanistic pedagogy, which included A. Disterverg , J.A. Comenius, I.G. Pestalozzi, J.-J. Rousseau, V.A. Sukhomlinski, K.D. Ushinsky considered the teacher as a carrier and transmitter of cultural values to younger generations. In the conditions of modernization of education, all teaching models are implemented in the context of the Federal State Educational Standards of the new generation, which make serious demands on the professional skills of the teacher. A.S. Makarenko paid special attention to the role of the teacher in his pedagogical practice and tried to theoretically generalize it. In his opinion, the teacher should not resemble an overseer "to have the right to punish or encourage in formal terms, he should not give orders on his own behalf, except in the most extreme cases, and even less should not command. Only when the educator is freed from formally supervisory functions can he earn the full trust of all" (Makarenko, 1951). In the modern world, the teacher must be

prepared to adapt to new technologies, integrate them into the teaching process and use them to enhance learning.

Method

During the experiment, we used the method of theoretical analysis of psychological and pedagogical literature, classification, and generalization. We also conducted a survey of teachers using the questionnaire "The Role of a Teacher in the Modern Educational Process," and employed the autobiography method to study the professional path of a teacher. We administered a questionnaire to assess teachers' satisfaction with their work in an educational institution (E.N. Stepanova). The questionnaire provided insight into the types of skills teachers use in pedagogical practice, their goals in education, and whether the roles they are required to fulfill in their professional activities have changed due to globalization.

The questionnaire to study teachers' satisfaction with life in an educational institution (E.N. Stepanova) consists of four blocks. Teachers were asked to answer questions in four areas expressing their attitude to various aspects of the educational process in the school: satisfaction with the educational process in the school, satisfaction with working conditions in the educational institution, assessment of the psychological climate in the team, satisfaction with the administration in the educational institution.

Results/Outcomes

Teachers from Russia, Africa, Poland, Brazil, and India participated in the experiment. The study of the Russian experience was conducted with 50 teachers who had worked in schools for 10-15 years. In the first stage, we used the autobiographical method. We found that most teachers arrive at school at 7.30 a.m, hold organizational meetings with pupils, register them in the canteen, have classes until 3 p.m, fill in the electronic journal, check notebooks and conduct circles. The analysis of the questionnaires revealed that the skills teachers use in pedagogical practice include organizational skills, computer use, psychological knowledge, and the ability to coordinate and motivate students. The majority of teachers (63%) rated their working conditions as satisfactory, while 37% of teachers are dissatisfied with due to irregular working hours and tense team relations. Furthermore, 73% of teachers said that teaching is a way of life for them, 86% said it is an opportunity to earn a regular income, and 91% stated that teaching is labor-intensive work with a responsibility to children and society. The main changes in pedagogical practice are linked to the introduction of the new educational standard and changes in the content of education. Teachers noted the creation of numerous digital platforms and expressed difficulties with the new electronic logbook. Teachers are required to submit more reports and 90 % were dissatisfied with the division of pupils into "risk zones" based on behavior, attendance and family affluence. The results of the methodology of studying teachers' satisfaction with their profession showed that 75.6 % of participants were satisfied with the educational process, and teachers felt they had opportunities to express and realize their

professional and personal qualities.

Conclusions/Discussion

The analysis of the literature allows us to conclude that, in the context of globalization and societal change, as well as the revision of the educational paradigm, attention must be paid to the importance of professional experience and the development of teacher competence. The changes occurring in the country and society have radically affected school life: not only programmes, textbooks, forms and methods have changed, but also students, parents and teachers. Today, the teacher's task is to create conditions for the development of students' creative abilities, foster a desire for the creative perception of knowledge, teach independent thinking, help students realize their needs, increase their motivation to study, and encourage their individual aptitudes and talents (Stolyarova, 2022). An analysis of materials on the introduction of the new generation of FSES indicates that teachers play a special role: They should serve as role models, be engaged in constant learning, and pursue self-improvement. A distinctive feature of the new standard is its activity-based nature. The main goal is the development of the individual. The education system rejects the traditional presentation of learning outcomes in the form of knowledge, skills and abilities. FSES encourages teachers to plan not only the overall lesson but also individual activities, during which they must closely follow the student's thought process (Yamburg, 2020).

Keywords: Education, teacher, federal educational standard, teacher's role, competences.

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Sub Theme 2

Navigating change in education

The Influence of Sensory Learning Styles on Students' Performance in National Examinations

Eleni Zenakou, Christina Zisopoulou & Aglaia Stampoltzis

Introduction

Each person has a unique approach to learning, using various techniques and strategies to process and assimilate new knowledge. Some prefer visual stimuli, while others prefer verbal repetition or writing. These differences create unique learning styles based on individual abilities and preferences. These learning styles can affect students' academic performance and their overall standing in the academic environment. Researchers have examined the relationship between sensory learning styles and academic performance, but this study aims to investigate how learning styles affect senior students' performance in National Examinations, a topic of significant scientific interest. The study also considers how factors such as the higher education admissions system can influence candidates' exam performance and their learning approaches.

Theoretical background

The concept of learning style is used in the literature to describe the different ways in which each individual approaches learning (Tan & Laswad, 2015). A widely accepted definition identifies learning style as the individual's ability to process information based on cognitive and mental factors, personality traits and social context (Jahanbakhsh, 2012; Vaishnav & Chirayu, 2013).

In reviewing the literature, it is observed that learning styles are classified based on occupation subject matter in models measuring learning styles. One of the most popular models is the sensory model of learning styles (VAK), which focuses on the acquisition and processing of information through the senses (vision, hearing, movement). According to this model, individuals are divided into three types, Visual, Auditory and Kinesthetic (Pellón et al., 2013). Visual types prefer to learn through the visual pathway, using maps, diagrams, pictures and tables. Auditory types assimilate information when they hear it presented through lectures and discussions, while kinesthetic types prefer learning based on practice, movement, sensation and experience (Alavinia & Ebrahimpour, 2012; Felder & Silverman, 1988; Fleming, 1995; Fleming & Mills, 1992; Reid, 1987; Vaishnav & Chirayu, 2013).

Academic achievement encompasses the skills and knowledge that students gain through learning, influenced by both internal and external factors. One crucial aspect of students' academic performance is their participation in national examinations, which are a determining factor for university admission.

Method

A quantitative survey was conducted among first-year students attending Greek universities, private colleges and vocational training institutes as well as foreign universities (N=100). The average age of the participants was 19.4 years and the survey was conducted between April and July 2023 (M= 32, W=66, O=2). The survey participants were asked to anonymously complete three electronic questionnaires. These questionnaires included socio-demographic data, the "Sensory Learning Styles Questionnaire" (Zenakou, 2013) to identify their sensory learning styles, and a questionnaire to assess their performance in National Examinations. The research objectives were: 1. To identify the most prevalent type of learning style among the participants, 2. To assess variations in the performance of senior students in the National Examinations based on socio-demographic factors and learning styles, 3. To explore the connection between sensory learning styles and performance assessment in National Examinations, 4. To investigate the link between learning styles and academic achievement in National Examinations.

Results/Outcomes

The results showed that the most prevalent learning type among the participants was the visual type (N=50), the kinesthetic (N=22), the auditory (N=11) and the combination of these (N=17). The results also indicated that visual learning was the predominant type for both females and males. Furthermore, statistical analysis showed that the participants' performance was not significantly correlated with gender or age.

Additionally, statistical analysis showed that the participants' performance was not significantly related to gender, age, place of residence, parents' educational level, type of extracurricular instruction, choice of study, or timing of taking National Examinations. The only statistically significant relationship found was between achievement and the direction of choice. More specifically, it was observed that respondents who had declared humanities and health sciences as their elective direction scored more points in the examination than those who had chosen the direction of economics & information technology/administration.

Examining the data, we found a meaningful positive link between visual type and effective time management during the written test ($p = 0.027$), opting for extracurricular teaching ($p = 0.016$), achieving success through good preparation ($p = 0.001$), and excelling due to extended study hours ($p = 0.006$). Conversely, we also observed a significant negative correlation between visual type and passing the exam through luck ($p = 0.032$). The results show that there is a statistically significant relationship between auditory learning and the choice of extracurricular instruction ($p= 0.027$). However, for kinesthetic learning, no statistically significant relationship was observed. Additionally, there was no statistically significant relationship found between learning modes and performance in the National Examinations.

Conclusions/Discussion

This study aimed to examine how different learning styles - visual, auditory, and kinesthetic - relate to the academic performance of final year Greek students who took the National Examinations. The study found that visual learning is the most common among the students, which aligns with previous research indicating that visual learning is the most prominent type (Banas, 2018; Pellón et al., 2013; Reid, 1987; Tomuletiu et al., 2011; Zenakou, 2023).

Based on research findings, the predominant learning style is visual, which is consistent with previous studies. This particular type of learning seems to be more common, possibly due to the nature of the National Examinations, where students are required to memorize information, take notes, complete written assignments, and read texts. Previous studies (Banas, 2018; Pellón et al., 2013; Reid, 1987; Tomuletiu et al., 2011; Zenakou, 2023) also support these findings.

In contrast to previous studies that concluded factors such as gender, place of residence, parents' educational attainment, and type of extracurricular teaching influence academic performance, our finding suggests there is no significant relationship between these variables and performance. Past studies indicated that girls (Considine & Zappalà, 2002), urban children (Considine & Zappalà, 2002; Munir et al., 2018) and students with highly educated parents tended to perform better.

The study found a meaningful connection between visual learning methods and performance in the National Examinations. Additionally, it was encouraging to find that there was no significant correlation between exam performance and learning methods, consistent with previous research (Munir et al., 2018; Pellón et al., 2013).

Keywords: Sensory learning styles, National examinations performance.

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Sensory learning styles and Emotional Intelligence in Higher Education students

Pantelis Antonopoulos, Eleni Zenakou, Ekaterini Antonopoulou & Aglaia Stampoltzis

Introduction

The concept of "learning style" refers to the distinctive cognitive approaches individuals employ to acquire and master knowledge. These behaviors encompass how learners perceive, engage with, and respond to their learning environment, including cognitive, affective, and physiological aspects (Keefe, 1979; Leaver, 1997). According to Dunn & Dunn (1993), a person's learning style is their method of processing and internalizing new and challenging material. Research suggests that individuals are inherently predisposed to learning, with genetics determining 60% of their learning style, while experience shaping the remaining 40% (Prashnig, 2006). Each student has unique learning preferences that significantly influence their cognition, comprehension, behavior, and academic accomplishments. Unfortunately, educational institutions often overlook these individual needs, failing to recognize preferred learning styles, and to adapt learning environments accordingly.

Emotional intelligence (EI) involves the ability to evaluate one's own emotions as well as those of others, and by accurately distinguishing those emotions and by cognitively processing that information, to think and behave accordingly (Mayer & Salovey, 1993). Additionally, Petrides et al. (2004) proceeded to the division of EI into individual ability or cognitive ability and EI as a component of personality, trait emotional intelligence (trait EI).

The research study aims to identify the predominant sensory learning type and the most prevalent combinations of sensory learning styles among undergraduate and postgraduate students at Greek universities. Furthermore, we seek to delve into the link between sensory learning styles and emotional intelligence (EI).

Theoretical Background

Many higher education institutions prioritize achieving their educational goals and investing more in the cognitive aspect of education. However, it's important to consider the interrelation between logic and emotion when it comes to learning (Zull, 2004). Emotions play a significant role in both the attainment of learning and and how learning is accomplished. The intricate interaction of emotions holds great importance in grasping and nurturing student motivation (Zull, 2004). Students' strategies for regulating their emotions can heavily influence their preferred learning style during the learning process. Emotional regulation, encompassing individuals' techniques for managing and responding to their emotional experiences, plays a crucial role in shaping their approach to learning activities.

The findings from surveys conducted in various countries and universities have consistently shown that reading, kinesthetic, and auditory learning styles are the most preferred (Alkhasawneh, 2008; Espinoza-Poves et al., 2019; Taheri, 2021). Notably, a study in Greece (Zenakou et al., 2023) revealed that the visual learning style is dominant among adolescents, with the VAK type scoring higher. Moreover, there is compelling evidence that emotional intelligence (EI) and learning style are strongly correlated, with learning style being predictive of EI (Vidyakala, 2019). Research on university students has also demonstrated a positive correlation between overall EI, Wellbeing, Sociability, Emotionality, Self-control, and learning styles (Öznacar, 2018). These significant findings underscore the importance of comprehending learning styles and their association with emotional intelligence for effective education and personal development.

Method

The study group includes 152 undergraduate and postgraduate students of Greek universities and universities of Cyprus engaged in distance learning. They were requested to complete the "Sensory Learning Styles Questionnaire" (S.L.S.Q.) (Zenakou, 2011), the TEIQue-SF (Trait Emotional Intelligence Questionnaire - Short Form) (Petrides et al., 2007) and a demographic questionnaire. 117 (76%) female and 37 (24%) male students participated, providing their input anonymously and voluntarily. The majority of participants (74%) were undergraduates, with 57.1% falling into the 18-22 age group.

To conduct the research, the S.L.S.Q. (Zenakou, 2011) was used to investigate sensory learning modalities and TEIQue-SF (Petrides et al., 2007) was used to measure students' level of EI. The TEIQue-SF consists of four dimensions of EI, Wellbeing, Self-control, Emotionality, and Sociability.

The research questions are as follows: 1) to determine the dominant sensory learning type and the dominant combination of sensory learning types, 2) to measure the level of EI, and 3) to investigate any significant relationship between learning styles and EI.

The statistical analysis for the investigation of the research questions included: descriptive statistics, tests of normality (Kolmogorov-Smirnov and Shapiro-Wilk test), parametric (Anova, t-test), and non-parametric tests (Kruskal-Wallis 1-way ANOVA, Mann-Whitney U).

Results/Outcomes

The study findings revealed that the Visual learning style was predominant, constituting 61.7% of the sample, followed by the Auditory type at 22.7% and the Kinesthetic at 15.6%. The most common combination was Visual-Kinesthetic-Auditory (VKA) at 38.3%, with Visual-Auditory-Kinesthetic (VAK) following at 23.4%.

The average overall Emotional Intelligence (EI) index was 4.81. Among the EI dimensions, Wellbeing scored the highest (M. 5.19), followed by Emotionality (M. 4.98), Sociability (M. 4.47), and Self-control (M. 4.27). Male students generally exhibited higher EI scores than female students, except for Emotionality. However, statistical analysis using the T-test for

independent samples revealed non-significant differences between male and female students.

The mean overall Emotional Intelligence (EI) score was 4.96 for the auditory type, 4.83 for the Visual type, and 4.49 for the kinesthetic type. A one-way analysis of variance (ANOVA) revealed a statistically significant difference in the overall EI index [$F_{(2, 151)}$ = 3.127, $p < 0.05$] between the Auditory and Kinesthetic types, subsequent to a test of normality showing that the variables followed a normal distribution.

Based on the findings, individuals with an Auditory learning style demonstrated the highest score in Self-control, Emotionality, and Sociability. In contrast, Visual types had the highest Wellbeing scores. The Kruskal-Wallis One-Way ANOVA identified a statistically significant difference in Sociability among the sensory learning styles (p= 0,048 < 0,05).

The AVK combination demonstrated the highest overall EI index score at 4.98, slightly surpassing AKV at 4.91, albeit not to a statistically significant degree. The AVK combination also exhibited the highest scores in Self-control (M 4.61), Emotionality (M 5.27), and Sociability (M 4.61). For Wellbeing, the VKA combination obtained the highest score at 5.32, with only a slight difference from AKV at 5.30; once again, these differences were not statistically significant.

Conclusions/Discussion

The research suggests that both males and females have a dominant visual learning style, incorporating Visual, Kinesthetic, and Auditory (VKA) learning styles (Kholid et al., 2016; Zenakou, 2011; Zenakou, et al., 2023). Auditory learning type scores were found to be highest in most EI variables, contrasting with previous studies linking higher Emotional Intelligence to a preference for visual and kinesthetic learning styles (Kholid et al., 2016). This difference may arise from auditory learning enhancing the development of empathy. Additionally, individuals with an auditory learning preference are associated with specific personality traits, particularly extraversion (Zenakou, 2011), which could explain higher emotional intelligence (Petrides et al., 2004).

Furthermore, the study revealed a considerable disparity in Sociability. It indicated that students who prefer auditory learning demonstrate higher social awareness, adeptness in managing others' emotions, and assertiveness. These auditory learners seem to thrive in interpersonal interactions, possibly due to their improved ability to process and respond to verbal cues and emotional nuances during communication. This finding underscores the link between auditory learning preferences, advanced social competencies and EI.

Regarding gender, the present study challenges the stereotype suggesting superior female emotional intelligence. Male students exhibited higher scores in Wellbeing, Self-control, and Sociability, aligning with previous research (Zenakou et al., 2023).

In summary, the research highlights a connection between sensory learning styles and EI. This relationship seems to be bidirectional, with sensory activation being essential for developing EI, while EI significantly influences how people learn and process information.

Keywords: Emotional Intelligence, learning style, students.

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School emotional diary, as a favorable resource for the wellbeing of students. Experience in a campus of the College of High School Graduates of the State of Oaxaca Mexico

Lucy García Reyes

Introduction

Faced with the paradigm of the New Mexican School in Higher Secondary Education (EMS), the vision of the Common Curriculum Framework (MCC) to equip the importance of Sociocognitive and Socio-emotional Resources is valued, assuming that learning always articulates cognition and emotion, interacting in each environment, context and reality of the students (SEP, 2022). The recognition of the aforementioned binomial was desired, due to the rigor of training which over the years has diminished the importance of socio-emotional development; however, the guidance teachers who are psychologists or educators are closer to the students, understand their psycho-emotional needs and help them make vocational decisions (teachers of educational orientation). They upheld the principles of this service in schools of the College of Baccalaureates of Oaxaca (COBAO) through actions to consolidate integral and harmonious training in students, through alternatives to develop and strengthen their intellectual, physical, emotional, social and cultural abilities (SEP, 2022). COBAO refers to 66 schools in the state of Oaxaca, Mexico and the study was conducted in the number 44 school. Currently these teachers work on the expanded curriculum, whose purpose is the development of Socio-Emotional Resources; in this context, the teacher of COBAO 44 during the years 2023- 2024 asked students to design and use an emotional diary; it should be noted, that these students entered during the COVID-19 confinement and attended part of high school and high school virtually; a fact that motivated the application of this methodology. Although, the teacher recognised students' learning progress in their analysis of environmental factors that impacted on their physical and mental health through the emotional diary narratives, the teacher also identified whether the student needed individual or group support, as well as the cases that required medical attention from a mental health expert.

Theoretical background

The latest theoretical contributions have produced favorable changes in approaches that, in contrast to the traditional psychopathological model—which viewed adolescents as problems—emphasize strengths rather than deficits and promote the flourishing of their potential (Oliva et al., 2011). According to Gómez and Benítez (2019), a healthy, well-adjusted adolescence facilitates the transition to adulthood, especially when a well-being-focused perspective is adopted in educational and socio-family contexts. Bisquerra and

Pérez (2007) note that the construct of emotional competence still lacks a unanimous definition among experts; some refer to it as emotional competence, while others use the term socio-emotional competence, and some opt for the plural forms: emotional or socio-emotional competences. Meanwhile, one of the socio-emotional resources to be developed in the expanded curriculum pertains to Physical Body Care and Affective Emotional Well-being, which aims to promote positive changes in students' personal, school, or community lives. Therefore, the research presented here is an academic emotional diary written at the beginning of classes, enabling high school graduates to identify their emotions—both positive and negative—and narrate the causes of their origin, thereby becoming aware of the relationship between their academic or socio-family experiences and their emotions. In line with Carreres (2014), the emotional diary was conceived as a resource and asset that impacts individuals personally, as well as within their families, schools, or communities, making it a valuable experience for adolescents

Method

The study was based on the collection of non-standardized data and employed a qualitative approach. As stated by Hernández et al. (2014, p. 8), "the direct concern of the researcher is concentrated in the experiences of the participants as they were or are felt and experienced." The sample consisted of 122 high school students between 15 to 18 years old: 58 females and 64 males. The participants belonged to the extended curriculum groups of the 1st and 5th educational orientation, as these were the groups taught by the professor conducting the study.

On the first day, the importance of recognizing one's own emotions and those of others was explained. Subsequently, the procedure for the emotional diary was outlined, including the ethical guidelines for its management, which prioritized the right to share or withhold content. The writings would take place during the first ten minutes of class, where participants recorded academic, family, and peer experiences, as well as optimistic stories with a sense of humor as emotional skills derived from their daily interactions. It was communicated that the diary would be reviewed weekly, and as they developed their narrative skills, participants would be able to express their various emotions more fully. Additionally, they were required to participate in group circles for emotional sharing once a month.

Results/Outcomes

The pedagogical and didactic experience of this work was interpreted qualitatively through the review and socialization achieved in the diaries and monthly sharing circles. At the beginning of the activity, the students were presented with a roulette of basic and adjacent emotions. They expressed their enthusiasm for writing a diary, creatively personalized it, and began narrating the underlying emotions related to events they were experiencing, including those arising from interactions with their peers, teachers, and senior school staff. Initially, difficulty in writing was observed; they barely managed five to seven lines. They

reported on personal grooming activities, breakfast, commuting to campus, or conversations with relatives. However, gradually they identified more emotions, and a considerable number expressed feelings of stress due to the excessive academic workload imposed by demanding teachers, particularly during exams.

They mentioned that during the pandemic, they spent a lot of time on social networks and confessed that during classes, they often took the opportunity to sleep when their cameras were off, making it difficult for them to adapt upon returning to in-person classes. They also reported feelings of anger caused by reports and sanctions they considered unfair, particularly when certain rules of school coexistence were disregarded. In the emotional sharing sessions, the joy derived from interacting with peers was notably expressed; they shared how much they enjoyed each other's company. Some conveyed emotions of satisfaction and optimism about fulfilling their roles as students. Moreover, they expressed excitement about their futures as successful professionals, hoping to improve their current living conditions by acquiring goods they currently do not have. However, it is important to note that some shared diagnoses of anxiety, depression, and eating disorders.

Conclusions/Discussion

This study presents the conclusions of a teaching and learning process through an emotional diary. The experience was enriching in the face of the educational challenges of implementing active methodologies for the achievement of the learning of the formative trajectory; through this resource, emotional writing was put into practice and addition to the well-being of the participants; through this action, it was clear that high school graduates more than ever need spaces of emotional expression, without being under the scrutiny of teaching with rigid schemes in the traditional class, which distances authentic expression. What has been achieved in this work motivates to systematize the methodology throughout the educational community, to outline a culture of emotional expression, before the bill that the post-pandemic emotional dimension is charged. Based on Rodríguez and Gallardo (2020) well-being has ceased to be an exclusive health reference, the term contemplates emotions, social relationships, the sense of life and personal achievements, which are founded in learning the emotional balance required. Undoubtedly, the main contribution in the lives of students was to become aware of their own emotions and open their panorama by seeking help when they perceive the need for access to appropriate services. Finally, this work is a first approach to the didactics of emotions and opens a gap to a topic that has the spotlight in educational institutions due to the demand for attention that exists.

This study presents the conclusions of a teaching and learning process through an emotional diary. The experience was enriching in light of the educational challenges involved in implementing active methodologies for achieving learning outcomes along the formative trajectory. Through this resource, emotional writing was practiced, contributing to the well-being of the participants. This initiative highlighted that high school graduates, now more than ever, need spaces for emotional expression, free from the scrutiny of rigid teaching methods typical of traditional classrooms, which can hinder authentic

expression.

What has been achieved in this work motivates us to systematize the methodology throughout the educational community, aiming to cultivate a culture of emotional expression, especially in response to the emotional demands that have emerged in the post-pandemic context. According to Rodríguez and Gallardo (2020), well-being has ceased to be an exclusive health reference; the term now encompasses emotions, social relationships, the sense of life, and personal achievements, all of which are foundational for learning the emotional balance that is required. Undoubtedly, the main contribution to the lives of students has been the awareness of their own emotions and the encouragement to seek help when they perceive a need for access to appropriate services.

Finally, this work serves as a first step toward the didactics of emotions and opens a pathway to a topic that is increasingly in the spotlight within educational institutions due to the pressing demand for attention to this area.

Keywords: Emotional diary, students, high school, wellbeing.

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Teachers at the Crossroads: Developing materials for Firstschoolers' Awakening to Linguistic Diversity

Eftychia Damaskou & George Androulakis

Introduction

Modern school classrooms are shaped by intense population mobility, with multilingualism now being the norm rather than the exception (Ceñoz & Gorter, 2015; Kadyamusuma et al., 2018). In Greece, this has become even more pronounced since 2015 due to the regular influx of refugees from various countries. Although Greece has hosted immigrants for about four decades, this new situation of welcoming children from extremely diverse linguistic and cultural backgrounds appears to establish new foundations for teachers' multilingual practices, particularly during the early years of schooling when schools significantly contribute to meeting the educational, emotional, and social needs of all children (Nakeyar et al., 2018).

Within these classrooms, teachers are confronted with students' multiple L1s, which may often be invisible (Stathopoulou & Dassi, 2020). Research converges on the idea that teachers' attitudes and beliefs significantly influence "what" and "how" they teach (Llurda & Lasagabaster, 2010). However, positive beliefs do not necessarily lead to the implementation of multilingual teaching practices (Haukås, 2015), often due to limitations and obstacles posed by the educational context or the teachers themselves (Borg, 2017; Gorter & Arocena, 2020). There seems to be a discrepancy between teachers' positive views about integrating students' multilingualism in class and their actual teaching practices (Fotiadou et al., 2022; Simopoulos & Magos, 2021). Concerns also exist regarding the feasibility of practices utilizing students' multilingualism. As Krulatz et al. (2022) argue, changing teachers' beliefs and practices is challenging, and the success of any intervention depends on how continuous, intensive, and focused it is on the reality of the classroom (Murray & Christison, 2019). But is there a solution to this situation?

In 2010, the Reference Framework for Pluralistic Approaches was published (Candelier et al., 2010), which has been implemented to a limited extent in school language curricula (Drachmann et al., 2023) and educational practices (Paquet-Gauthier & Beaulieu, 2016). One of these approaches is Awakening to Languages (AtL), developed through the Comenius EVLANG European program, and considered the most comprehensive as it includes the simultaneous approach to a large number of languages. In Greece, this specific approach was included in the Flexible Zone course in 2002 (Καγκά, 2001), following the country's participation in a subsequent program entitled Janua Linguarum (JALING), with particularly positive results (Candelier et al., 2003). Unfortunately, Language Awakening did not become widely known in the country, and intercultural education that includes such practices depends on the goodwill of teachers, being implemented occasionally and gaining ground primarily through initiatives by the teachers themselves (Ζάχου et al., 2023; Αρμενιάκου, 2020; Damaskou, 2019).

Theoretical Background

To understand the essence of AtL, one should refer to the definition provided by the coordinator and initiator of the EvLang program, Michel Candelier, who states:

"There is a language awakening when part of the activities involve languages that the school does not aspire to teach, whether they are the home languages of some students or not" (Candelier, 2003a, p. 20).

Candelier et al. (2012) acknowledge that this approach was designed to welcome young students into the world of linguistic diversity, including their L1s, at a very young age, while also serving as a vehicle for full recognition of the languages that children "carry" from home to school, as well as a support for language learning throughout their education. In fact, AtL encompasses a diverse range of languages, regardless of their status (Daryai-Hansen & Drachmann, 2024), and aims to enhance students' plurilingual competence, as well as their language awareness and appreciation, by exposing them to a broad spectrum of languages (Coelho & Ortega, 2020; Prasad & Lory, 2020). Students engage in activities that encourage discovering and exploring new sounds, observing different writing systems, comparing languages, and reflecting on their similarities and differences. They also recognize the value of their own language repertoires when learning other languages (Armand, 2005), developing positive attitudes toward different languages and cultures (Armand et al., 2008), as well as fostering a translinguistic culture and learning strategies (Castellotti & Moore, 2010).

Method

There is a growing interest in exploring whether the AtL approach could provide a feasible solution for ensuring equal prominence of languages within the early grades of primary school. Thus, this paper aims to present the results of an action research study conducted as part of the Damaskou's doctoral thesis, examining whether the development and application of AtL teaching materials can be undertaken by the teachers themselves, and whether this is a challenging endeavor. The research involved two stages: the first stage consisted of data collection through semi-structured interviews with a sample of 60 teachers to identify the learning, cognitive, and linguistic features of first and second graders. The responses highlighted specific features that teaching materials for first graders should include. After adjusting these features to the AtL material's structure, they were utilized to design two materials: a story and a board game. In the second stage, these two materials were implemented in six classes in urban primary schools in central Greece. Data were collected through simultaneous filming and recording of all applications, while their transcription was analyzed using thematic analysis (Terry et al., 2017), alongside a comparative analysis of the dataset gathered during both stages. All interviews and implementations were recorded, transcribed, and analyzed through thematic analysis, with an observation grid adapted from Leuven's grid used during the analysis of the video recordings. Oral consent for participation in the interviews and written parental agreement

were obtained from all participants in the study. The excerpts presented in this paper will be anonymized and coded to protect privacy.

Results/Outcomes

TTProponents have characterized the AtL approach as the most comprehensive of the pluralist approaches. Even the researcher herself, prior to implementing the materials she designed, had reservations regarding their feasibility, raising questions about whether the children would face difficulties, become bored, find the material interesting, or tire of dealing with learning program content, such as written vocabulary in unknown and untaught languages. This concern was echoed by several teachers during the interviews, some of whom questioned whether first-grade students could process the written forms of words in unknown languages.

The research results focus on elements of professional identity and personality that can impact the design and implementation of educational materials, the importance of incorporating a variety of modes—such as sounds, images, movement, and fine kinesthetic skills—into the materials, and the utilization of linguistic stimuli derived from the local social and educational context. The research also highlights the high level of ability to memorize, imitate, and repeat that young students exhibit at this developmental stage, the use of known languages as reference languages, the clear targeting of activities, multisensory learning, the use of easy-to-handle materials appropriate for this developmental stage, the suitability and preference for specific topics and formats such as fairy tales and games, the clarity of instructions, cooperative learning, teamwork among students, and the establishment of a pleasant classroom atmosphere. Finally, the research addresses the management of competitive behaviors regarding access to the materials and claims to the correct answers from students.

Conclusions/Discussion

The general conclusions reached in our thesis indicate that the design of educational materials for the AtL approach for primary school students can be implemented by the teachers themselves without necessarily involving a team of experts, provided certain conditions are met: the aesthetics of the materials developed must incorporate strong multimodal and digital elements. The combination of multimedia resources ensures a balance regarding the amount of language content, as various proposed activities concern a large number of working languages. The integration of audio and visual elements with written vocabulary in all working languages maintains students' interest and engagement.

A relatively easy transition from one language to another was confirmed, while despite teachers' reservations about students' ability to perform morphological analysis of words in unknown languages, it emerged that students did not experience as much difficulty as expected. This suggests that the researcher's guidance is crucial and that the existence of at least two reference languages may facilitate correlations between languages, acting as a bridge. In fact, students do not appear disoriented by the presence of multiple languages.

Aside from a few individual cases, the majority of students do not seem to tire as activities progress.

Finally, our study aligns with Hopp et al. (2020), highlighting that the teacher's mindset and openness to integrating other languages as essential components of teaching are crucial for successful multilingualism. Multilingual teaching should be rooted in a school culture that values and respects diverse languages and cultures (Keaveney & Lundberg, 2019). When aiming to integrate various languages, teachers must reconsider their role as the sole authority on language (Ziegler, 2013) and be willing to suspend judgment regarding the accuracy of students' responses.

Keywords: Awakening to languages, firstschoolers, teaching material, linguistic diversity

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Sub Theme 3

Promoting Inclusive Practices in Education

Canvassing Innovative Work Behavior of Early Childhood Education Teachers

Angelos Gkontelos & Dimitrios Stamovlasis

Introduction

There is an urgent need to integrate innovation into school life, as education is the cornerstone of social development and wellbeing. Central to the realization of this need is the role of teachers, some individual differences of which, relevant to their innovative behavior are investigated in this paper. Specifically, some attitudinal variables, known as Irrational Beliefs (Bernard, 2016), are examined, which -usually- act as a deterrent and bring about non-functional consequences, affecting action and lifestyle. They describe an individual's structured notions of reality, are triggered by everyday experiences and represent the different manifestations of their behavior. Moreover, the school environment enhances work stress, which in some cases leads to Burnout (Demerouti et al., 2014), making individuals unable to adapt to their work contexts. Undoubtedly, teacher Burnout directly impacts all members and parts of the school organization, defining any learning and social activity and causing collective dysfunctionalities. In order to transcend any banality, employees participate in a multi-stage process with the ultimate goal of adopting and promoting new ideas. A basic prerequisite for achieving the above is the cultivation of Innovative Work Behavior (Lambriex-Schmitz et al., 2020). Although innovative behavior within the workplace contributes to the progress of the organization, it is not found as a widespread feature, since the production and promotion of alternative ideas do not imply universal prosperity and acceptance by its members. Acknowledging the importance of Innovative Work Behavior and aiming to an illuminating contribution to the field, this paper examines it via multivariate statistical modeling.

Theoretical Background

Innovation is a process characterized as a complex and nonlinear activity with stages that include the conception of the new idea, the discussion among colleagues, the implementation, and the effort to transfer and disseminate the new idea in a broader context that goes beyond the framework of the organization (King & Anderson, 2002) Innovative Work Behavior comprises an iterative process in which employees conceive new ideas after exploration and ponder their promotion and sustainable implementation (Gkontelos et al., 2022).

The Job Demands-Resources Theory (Bakker & Demerouti, 2014) is used to explain Burnout, which is defined as the result of increased job demands and reduced resources, leading to exhaustion and gradual dismissal from work. In schools, teachers have difficulties trying to adapt to an environment with increased levels of work stress, while a

simultaneous reduced stamina leads to exhaustion and disengagement (Skaalvik & Skaalvik, 2017).

Irrational Beliefs, are unrealistic thoughts, lacking rationality and/or empirical support (Ellis et al., 2010). They are shaped by everyday experiences, yet they have a rather complex structure because they represent an individual's understanding of the reality. This means that they are powerful enough to influence behavior and in fact constitute a specific type of evaluating perceptions, sometimes related to non-functional emotions and conditions (David et al., 2010). Within the educational context, teachers' Irrational Beliefs concern students' misbehavior or school unchangeable situation and can create latent views and decisions with dysfunctional behavioral consequences.

Method

The sample of the study consisted of 378 early childhood education teachers. The self-completion questionnaire was uploaded on a web-based form, from where the participants completed it anonymously. Three instruments were implemented corresponding to the three latent variables (Innovative Work Behavior, Burnout, and Irrational Beliefs) under investigation, which all had already adapted to the Greek population. Participants were invited to choose their degree of agreement in a 5-point Likert scale, where (1) indicates strong disagreement and (5) indicated strong agreement, respectively. Preliminary analyses including descriptive statistics, correlations and linear regression models indicated strong associations among the variables under investigation. These associations, following a theory driven scheme, were finally expressed via a Structural Equation Model. Based on Job Demands-Resources Theory, oriented to the personal characteristics, the two dimensions of Irrational Beliefs, namely "Self-downing" and "Demand for Justice" constitute the Personal Demands, while the other two "Authoritarianism" and "Low Frustration Tolerance" represent Personal Resources. It was proposed that Personal Demands have positive effects on Exhaustion, as Personal Resources affect negatively the Disengagement. It is expected that the two dimensions of Burnout will have negative effects on Innovative Work Behavior.

Results/Outcomes

The Structural Equation Model fit indices were satisfactory showing a statistically significant model that can describe and explain the associations among the variables predicting Innovative Work Behavior [χ^2 (84) =247.084, $p < .001$, TLI=0.916, CFI = 0.941, GFI = 0.994, $NNFI$ = 0.916, $RMSEA$ = 0.072 (0.061–0.082), $SRMR$ = 0.071]. The succeeded SEM model suggests that there is positive effect from Personal Demands on Exhaustion (b= 1.147, p<0.001) and a negative effect from Personal Resources on Disengagement (b= -0.292, p<0.001). In addition, Exhaustion affects positively Innovative Work Behavior (b= 0.756, p<0.001), while Disengagement affects negatively (b= -1.115, p<0.001), respectively. Note that the positive association of Exhaustion with IWB is not an oddity as explained in the next section. Among the two variables of Burnout, it was detected a

positive effect from Exhaustion to Disengagement (b= 0.947, p<0.001). The hypothesized SEM proved satisfactorily explanatory to the teachers' Innovative Work Behavior [Innovative Work Behavior (R^2=0.238); Exhaustion (R^2=0.362); Disengagement (R^2=0.752)].

The model revealed the opposite way that Innovative Work Behavior is affected by Burnout's dimensions. Furthermore, the twofold role of Irrational Beliefs is featured, as they constitute different constructions (demands and/or resources) causing alternative responses.

Conclusion/ Discussion

The expansion of Job Demands- Resources theory incorporating the personal characteristics, was realized in this endeavor, and supported empirically via the SEM model. Personal Demands describe the individual's demands related to performance and behavior and refer to the need to make further effort to complete work activities (Barbier et al., 2013). Similarly, Personal Resources are recorded as the personal attitudes of the individual associated with their ability to control and successfully influence their environment (Xanthopoulou et al., 2007). Hence, the classification of the four dimensions of Irrational Beliefs either to Demands or to Resources, follows the aforementioned theory's suggestions.

Literature has shown that the negative impact of demands on emotional intelligence and psychological resilience leads to a decrease in job satisfaction by increasing individual's Exhaustion (Huk et al., 2019). The difficulty of understanding emotional and psychological demands reinforces their exhaustion, making Personal Demands powerful predictors. The negative effect of Disengagement on Innovative Work Behavior is expected, therefore, a sense of disengagement and the need to leave the profession is considered capable of deterring any attempt to promote innovation. There is a lack of willingness to offer anything new, different and innovative as a result of one's emotional state (Hammond et al., 2019). The positive effect of Exhaustion on Innovative Work Behavior is seemingly surprising; however, it is interpretable if considering that Exhaustion as the unsuccessful management of stress, can be the springboard for re-individual development. Note also, that Irrational Beliefs prefer -mainly- dysfunctional responses, without, however, excluding the possibility of causing functional ones (Gkontelos et al., 2023). The findings appealing to principals, managers and stakeholders in early childhood education.

Keywords: Innovative Work Behavior, Burnout, Irrational Beliefs, early childhood education.

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Moving Beyond the Theory-Practice Dichotomy: Putting Student Teachers' Development at the Centre of Teacher Education

Marinos Anastasakis & Manolis Dafermos

Introduction

In the literature, the issues surrounding teacher preparation are linked to factors such as funding constraints, the massive scale of the teacher education enterprise, the sense of urgency in qualifying new teachers rapidly and at low cost, or the need to rethink the connections between campus courses and field experiences (Labaree, 2006; Schneider, 2018; Zeichner, 2010). Regarding the later, a significant part of the ongoing discussion has aimed -and still does- at reshaping the teacher practicum by balancing "theory" and "practice" (Robinson, 2017; Vick, 2006). Attempts to resolve this dichotomy have generally been grounded In two major approaches, representing an ongoing pendulum between practice-based and theory/research/inquiry-oriented models (Becher, 2022).

The school practicum has been treated as an appropriate setting offering opportunities for applying academic knowledge in practice, reducing the gap between pedagogical theory and practice and encouraging the development of Student teachers' (STs') professional identity (Becher, 2022; Cohen et al., 2013). However, several important questions remain unanswered: does the formation of teacher identity start at the university? What is the relationship between STs' development and campus courses or the practicum? In this study, we use STs' experiences of mathematics as an exemplar to highlight the cultural and social foundations of their development and argue that any attempt to rethink the future of teacher education should place STs' development at its centre.

Theoretical Background

Lev Vygotsky used the term "obuchenie" to refer to the two-way nature characterising teaching and learning. The problem of the relationship between "obuchenie" and development was considered by Vygotsky to be "the most central and fundamental question" (1935, p. 3) because this relationship is dialectical: on the one hand, learning is based on a person's level of cognitive development, and on the other, learning plays a leading role in development. However, not every form of instruction leads to development; the relationship between "obuchenie" and development is not static but is influenced by the organisation of society and the educational system. "No one has ever argued that teaching someone to ride a bicycle, to swim, or play golf (forms of activity that are much more complex than the discrimination of the magnitude of angles) has any significant influence on the general development of the child's mind" (Vygotsky, 1935, p. 200).

An important dimension of cognitive development pertains to the transition from situational to conceptual thinking. Situational thinking relies primarily on sensory

perception and focuses on understanding and responding to the immediate context. In contrast, conceptual thinking involves the ability to generalise and think beyond the situation at hand (Luria, 1976). An integral part of conceptual thinking involves the ability to go beyond superficial observations and understand the deeper principles and relationships underlying the phenomena being studied (Dafermos, 2019; Davydov, 1990).

Method

The study took place in a Primary Education Department in Greece and was approved by the university's Research Ethics Committee. Cases were recruited from the department's undergraduate population. A total of 12 STs agreed to participate in the study. No incentives or other types of compensation were provided to the STs. Data were collected through in-depth interviews with the STs (the average time of each session was 40 minutes). The interview protocol was semi-structured and contained open-ended questions aimed at eliciting answers related to STs' overall experience (e.g., "How would you describe your relationship with Mathematics?") and difficulties with mathematics (e.g., "What kind of difficulties did you encounter in school/at the University?"), emotions (e.g., How did you feel when this happened?) and, strategies for coping with these difficulties (e.g., "Did you try to overcome these difficulties? How?"). Prior to analysis, all interviews were transcribed verbatim. The analysis was carried out in two stages: first, the transcripts were analysed in using open coding and then, these codes were combined and organised into thematically related groups.

Results/Outcomes

Based on their experiences with mathematics, the STs were divided into two groups: STs in group A reported having low grades, serious difficulties and negative attitudes or even mathematics anxiety, whereas those in group B reported having good grades, a positive attitude, and, in general, an unproblematic experience with mathematics. The analysis of the interview data led to the identification of five themes related to STs' views and self-reflections regarding: (1) the type of knowledge primary teachers should learn at the university; (2) a person's ability to learn mathematics; (3) the approach and procedures involved while learning mathematics; (4) development at the university and; (5) social situations experienced throughout their formal education. A cross-comparison of the identified themes showed mostly points of convergence: despite the different experiences ST had, the types of learning they were engaged in throughout their education led to similar developmental outcomes.

STs' views about the relationship of mathematics to the teaching profession, the nature of mathematical knowledge, and the process of learning are, in our view, manifestations of their exposure to a particular type of "obuchenie", a kind of teaching and learning which promotes and cultivates situational thinking. In the data, situational thinking was captured in the form of (a) an avoidance of complex, theoretical ways of thinking; (b) a view of mathematics as an innate endowment and; (c) a focus on mastering forms of procedural

knowledge by adopting strategies focusing on memorisation and exams. At the university, the consequences of situational thinking on STs' cognitive development are fully materialised, further corroding and damaging their development.

Conclusions/Discussion

Since the transition from situational to conceptual thinking entails fundamental changes in the types of activities a subject is engaged with (Luria, 1976), we argue that the cultural and social milieu within which the STs were brought up was dominated by social situations and types of teaching and learning that could not facilitate this transition. Before entering university, the types of "obuchenie" to which STs were exposed to, could not guide their development. As a consequence, they did not internalise the knowledge, skills and cultural tools that could enable them transcending to more advanced types of thinking. Thus, the STs were gradually but steadily trapped in ways of knowing that did not allow them to go beyond superficial observations and understand the deeper principles and relationships underlying -in our case- mathematics (the extend of mathematical knowledge required of primary school teachers, a person's ability to learn mathematics, the procedures involved in learning mathematics). Upon their admission to university, the STs' imprisonment in situational thinking, set their horizon for further learning: STs did not have a base of prior knowledge and skills and thus were not able to approach new "obuchenie" effectively. As a result, many of them expressed resistance to complex ways of thinking and felt that "nothing new was learnt at the university". In our view, the study highlights the need to move beyond the "theory-practice" dichotomy and to place the STs' development at the centre of teacher education.

Keywords: Teacher education, development, practicum, cultural-historical theory.

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Experiential Exercises for Students' Personal Development and Counseling Support: A Case Study from the Harokopio University of Athens

Effrosyni Kostara & Konstantina Koutroumpa

Introduction

The presentation concerns a six-hour seminar that took place in the framework of the course "Pedagogical Psychology - Experiential Seminars for Personal Development and Counseling Support", which is part of the postgraduate program of Harokopio University. The course includes experiential seminars. These seminars aim to raise the awareness of graduate students on communication and personal development issues, such as recognition and expression of personal feelings, use of empathy as a means of communication, stress management, problems and conflicts related to the classroom, the school and several workplaces, etc. At the same time, the seminars emphasize the cultivation of skills such as critical thinking, creativity and resilience, as well as the transformation of dysfunctional assumptions that students may hold regarding their role and profession. The seminars include 18 hours of experiential exercises, which are conducted according to the methods and techniques of various psychotherapeutic approaches, such as cognitive-behavioural therapy (CBT), existential, systemic, art therapy, gestalt therapy, classical psychodrama and drama therapy. In addition to the emphasis on group dynamics, adult education principles are also utilized in the seminars, as students are adults themselves, with specific educational needs, characteristics, and preferred ways of learning. Especially from the field of adult education, emphasis is placed on theoretical approaches directly related to those of emancipatory education, such as Mezirow's Transformation Theory or Freire's Critical Pedagogy.

Theoretical Background

As far as the present presentation is concerned, the theoretical framework for designing and implementing the seminar draws from the field of adult education, as well as from the field of group dynamics. Additionally, elements of the systemic therapy approach are also implemented. At first, as far as the field of adult education is concerned, the main theoretical approach implemented is Mezirow's Transformation Theory. Mezirow's pedagogical model concerns the transformation of a learner's stereotypical assumptions. According to Mezirow, adults have acquired a coherent body of experiences, feelings, and assumptions that define their life world and work as a filter for understanding their experiences. However, distorted and stereotypical assumptions have the potential to be challenged and, under circumstances, transformed through dialogue and critical reflection within an appropriate, open and democratic learning environment. Such an environment is based on the use of the group, in which different voices are given the

opportunity to be heard through the different roles that each member of the group assumes. Finally, elements of the systemic therapy approach are significantly utilized with an emphasis on exercises that aim to empower the individual through reflection on their personal experiences and the recognition of their abilities in crisis management.

Method

The seminar had a total duration of six hours. Twelve students participated, including 11 females and 1 male, aged between 35-52 years. Two experiential exercises were conducted during the seminar. One was titled "Learning for Recognition: Crisis Management" and, as mentioned, the objective was for the students to work in working groups and reflect on personal or professional crisis incidents, to identify their strengths and weaknesses, the values and principles they used to manage the crisis, as well as their skills that contributed to the crisis' management with the aim of drawing general conclusions concerning crises. Then, the students participated in a simulation exercise entitled "Exploiting diversity in the workplace". During both exercises, which will be detailed in the presentation, data were collected. Specifically, 1) written archives since the students participated in journal writing. These texts were collected and thematically analyzed by the researchers. Additionally, 2) the researchers completed observation sheets, while 3) reflective dialogue followed. The qualitative approach was implemented, while for the elaboration of the data collected, thematic analysis was carried out, with an emphasis on the students' texts.

Results/Outcomes

Student participation in both exercises was active and effective. During the implementation and reflection of the first exercise, students were able to reflect on personal experiences, recount them to the group, and then hear from other group members about the values, principles, and skills that characterized how they managed the crisis. This exercise contributed significantly to the empowerment of the participants, to their self-confidence, and to the satisfaction of having their achievements and skills recognized by others, thus contributing to their personal development. Subsequently, the simulation exercise involved the students in a confrontation with their personal stereotypes, in a search for a solution, in an effort to maintain good communication and cooperation, thus contributing to their recognition of the difficulties of human relations in the work context, but also of the value of utilizing all roles within a team, and respecting the different voices that emerge within it. The students realized that such simulation exercises related to crisis and conflict incidents can be an excellent tool in the context of counselling or training interventions in the workplace, at school, and in groups dealing with relationships in the family. Moreover, the students practiced in creating similar simulation exercises following basic principles presented and analyzed by the researchers.

Conclusions/Discussion

From the above it is clear that the use of experiential exercises in the context of teaching in higher education is a unique and indispensable tool for education. Specifically, students are given the opportunity to actively participate, to fully understand the course content, but also to relate the course content to their own social and professional reality. At the same time, through these exercises they cultivate skills such as critical thinking, creativity, empathy, resilience, etc. However, the role that academics hold within the learning procedure is also significantly strengthened, as the learning experience becomes more interesting and engaging, allowing for deeper immersion in the teaching material. Furthermore, in the context of university pedagogy, academics can exchange such practices, thereby improving the effectiveness of university education and promoting research.

Keywords: Experiential exercises, group dynamics, personal development, higher education.

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Curricula (APS) 2003 and 2011 in Greece: thoughts, challenges and Reflections

Stella Chantzi

Introduction

The APS of each course includes the aims of teaching the subjects for the levels of formal education as well as the objectives, the thematic units and proposed interdisciplinary teaching plans. The reform of the APS depends on many factors, including cultural, pedagogical, sociological, and psychological factors (Mavroskoufis, 2008). In Greece, the body in charge of drafting the APS was the Pedagogical Institute (PI), and now it is the IEP (Institute of Educational Policy).

The writing of new books must accompany any reform of the APS, and its success depends, according to Kapsali-Haralambous (1993), on the quality of the teaching materials, especially the textbooks. The textbooks themselves embody the aspects and objectives of each APS. A basic element of any internal educational reform is the renewal and writing of new textbooks (Terzis 1988 in: Kapsalis & Charalambous, 1993).

The reference to the APS of recent years shows that innovative methods and techniques of learning and teaching have been included in their main objectives. In practice, of course, changes in the structure of the educational system and the methodology and organisation of courses, greater flexibility in curricula and a change of direction of the school (so that it aims not to provide sterile knowledge but to activate and involve the child in the processes of its construction) are required, as well as appropriate training and education of teachers in exploratory, experiential and supervisory teaching principles.

Theoretical Background

Since 1997, the debate on drafting modern curricula for compulsory education has been underway. The PI (Law 1566/85 No.1) created, in addition to the APS, the Unified Framework of Curricula and the so-called Interdisciplinary Unified Framework of Curricula, adopting the interdisciplinary and holistic approach to knowledge. The DEPS include the purpose of teaching the subject, the axes of the knowledge content, the general objectives of the subject (knowledge, skills, attitudes and values) and the indicative fundamental concepts of an interdisciplinary approach for primary and secondary schools (PI, 2002). The DEPS maintain the distinct subjects but attempts various forms of interrelationship between them to restore the internal unity of knowledge and a holistic view of the world. At the same time, it seeks to familiarise students with the aggregate knowledge of individual sciences by making interdisciplinary correlations of their content (Matsangouras, 2004). An effort has been made to gradually give the APS the character of flexible programmes, to treat learning not as an accumulation of knowledge but as a creative cultivation of the ways

of multi-practical acquisition of knowledge through participatory and experiential processes (Single Framework of Curricula for all levels of education, 1997).

Method

Literature review comparing the data concerning the drafting of the 2003 and 2011 APSs in order to highlight any differences, developments and to highlight positive and negative points. Reference is made to well-known scholars of teaching methodology regarding their function, role and targeting. Then, a partial reference is made to the functions and objectives of the 2003 and the 2011 APAs. The aim is then to show their differentiation and highlight important points with scientific reference.

Results/Conclusions

The 2003 APS is a renewed and ambitious effort, at least in its theoretical framework. They have a positive attitude towards the necessity of promoting critical skills and encouraging active learning through innovative methods. There are several objections as to whether and to what extent they have so far succeeded in implementing and achieving their objectives and whether this new impetus they are announcing can be translated into practical educational practice so that it bears fruit in general and in particular in the matter of a critical approach to each subject. Their implementation in recent years has generated much discussion and reflection (conferences, journals, institutions, etc.) on the weaknesses of the APS and the corresponding textbooks. The effectiveness of recent LIS or not in this area as in others is still being judged in teaching practice and will be documented in possible future research. The success or failure of an APS in its aims is related to the principles that organise the different contents in the school as well as to the resistance of individuals or groups in their implementation. It is a fact that their effectiveness is closely linked to many factors, the first of which are inadequate teacher training, the one-sided dominance of traditional teaching, insufficient teaching time for creative and innovative activities, etc.

The new 2021 APS can be a driving force for change in the education system. Its goal is to inspire teachers with appropriate instructions, space, and ways and means to make the classroom a laboratory for research, communication, action, and expression.

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The new 2021 APS can be a driving force for change in the education system. Its goal is to inspire teachers with appropriate instructions, space, and ways and means to make the classroom a laboratory for research, communication, action, and expression.

Keywords: Analytical programs of Studies (APS), learning, educational system, teaching, innovative methods.

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Sub Theme 4

Bridging the Gap: Connecting Present and Future Teaching and Learning

Educational, Pedagogical, and Research Trends in the 'Pedagogical Review' Journal of the Greek Pedagogical Society

Olga Kostika, Anastasios Siatras & Aikaterini Michalopoulou

Introduction

This paper aims to examine the pedagogical, educational, and research trends highlighted in published issues of the academic journal *Pedagogical Review* of the Greek Pedagogical Association. By analyzing these pedagogical dimensions, we aim to achieve two key objectives. First, we want to contribute to the interpretation of the main research trends within the Greek Pedagogical Association. This will involve identifying recurring themes, methodologies, and theoretical frameworks employed by authors in the journal. Second, we seek to utilize these findings to contribute to the enrichment of literature in the field of pedagogy within the Greek and international contexts. This study conducts a comprehensive analysis of all published journal papers in *Pedagogical Review* from 1984 to 2022. The analysis employs a comparative approach, examining similarities and differences across the papers to identify trends in pedagogical research. This paper delves into the pedagogical landscape by building upon existing international scholarship to analyze trends in pedagogical research and examine how the international discourse is reflected. The methodology section outlines the research methodology employed in this study, including the chosen analysis tool. We clarify the research questions guiding our investigation. Following that, we present the results of the analyzed journal articles, focusing on their type, target education level, topic, and the authors' gender and professional background. We conclude by discussing the limitations of this study and propose avenues for future research. This section aims to be valuable for aspiring researchers interested in contributing to the field of pedagogy in Greece as well as internationally.

Theoretical Background

The Greek Pedagogical Association is a prominent academic organization dedicated to advancing education in Greece. Established with a focus on scholarly publications, the Greek Pedagogical Association has published the academic journal *Pedagogical Review* since 1984. This journal, internationally recognized within the educational sciences community, has grown to encompass 74 volumes featuring research and theoretical papers by both Greek and international scholars. *Pedagogical Review* delves into a broad spectrum of topics within pedagogy, education, and learning sciences. Notably, the journal's content is freely accessible online at https://ojs.lib.uom.gr/index.php/paidagogiki/issue/archive. A review of the literature reveals a rich body of research employing systematic content analysis to examine papers published in academic journals across various disciplines. For instance, in science

education, studies by Eybe & Schmidt (2001), Chang et al. (2010), and Tsai & Wen (2005) offer valuable insights. Similarly, research in educational technology by Bozkaya et al. (2012), Baydas et al. (2015), and Shih et al. (2008) demonstrates the application of this methodology. The field of mathematics also includes relevant examples, including publications by Yığ (2022), Inglis & Foster (2018), and Hannula (2009). Notably, our longitudinal research follows other prior international studies utilizing a similar content analysis approach and can contribute to informing the research dialogue as well as support comparisons between countries.

Research Methodology

Following the methodological framework of thematic analysis, data collection and analysis aim to identify, highlight, and describe recurring patterns or 'themes' that emerge from the research data (Braun & Clarke, 2006). We conduct open, axial, and selective coding (Bryant, 2017). In particular, open coding records data related to the type of publications, topic, target level (e.g., primary education), and the gender and professional status of authors. In axial coding, the data are organized around thematic axes (e.g., inclusive education, student skills). Finally, selective coding focuses on the comparative analysis to highlight educational discourses of papers published in the journal. The research questions of this study are:

1. What is the distribution of publication types (e.g., research articles, theoretical papers) in *Pedagogical Review* from 1984 to 2022?

2. Across the analyzed articles, which education levels (e.g., primary, secondary, higher education) are the primary focus?

3. Do the articles in *Pedagogical Review* exhibit a dominant disciplinary focus within the field of education (e.g., curriculum studies, educational psychology, language education)?

4. What recurring pedagogical themes emerge from the thematic analysis of the data, and how do these themes evolve over time (1984-2022)?

5. How do the gender and professional background of authors relate to the identified pedagogical, educational, and research trends within *Pedagogical Review*?

Results/Outcomes

Data analysis (N=695 papers) highlights information regarding the type, the target level, the subject matter of the papers, as well as the gender and professional status of the authors. Regarding the type of papers, 435 papers were identified (224 quantitative, 123 qualitative, and 90 mixed-methods studies). There are 260 theoretical studies (136 literature reviews, 59 position papers, 47 papers presenting teaching practices, 11 book reviews, and 7 announcements or speeches). In terms of the education level addressed, 459 papers focus on primary education, 348 papers discuss issues related to secondary education, 157 papers highlight aspects of higher education, 9 papers refer to post-secondary education, 7 to special primary and secondary education, 4 to non-formal education. Finally, analysis

showed that 19 papers had a general focus by dealing with broad education issues. Thematic areas of focus in the data are divided into 18 thematic categories, with the most popular being teachers' and parents' perceptions (82 papers), educational policy and curriculum (94 papers), and subject-specific teaching (72 papers). Less emphasis is placed on technology and distance learning (14 papers), lifelong learning and professional guidance (14 papers), and bullying and human rights issues (12 papers). Among the authors (1140 in total), 568 identified as men and 571 as women. Additionally, 793 authors are from higher education, 203 from primary education, 108 from secondary education, 6 have different professional careers, and 30 have unspecified professional status.

Conclusions/Discussion

The analysis of articles in *Pedagogical Review* reveals a potential need for greater emphasis on qualitative or mixed-methods research. This finding suggests that alongside quantitative approaches, exploring educational phenomena through qualitative lenses could provide valuable insights. Additionally, the data indicates a potential gap in research attention towards topics like lifelong learning, distance education, and student mental health. Increased focus on these areas could enhance the journal's contribution to the field. Furthermore, the study suggests that encouraging more primary and secondary school teachers to engage in scholarly writing and publishing could be beneficial. This could provide valuable perspectives on the realities of school environments and help bridge the gap between theory and practice. This study offers valuable insights into the pedagogical landscape. However, some limitations are important to consider. Firstly, the study focuses on a single journal, potentially limiting the generalizability of the findings. A broader analysis encompassing multiple Greek educational journals could provide a more comprehensive picture of research trends. Additionally, pedagogy is a global field. Exploring similar trends in international journals across various languages would further enrich the understanding. Regarding the methodology, while citation analysis offers an objective measure of paper prominence, it is important to acknowledge potential researcher bias. Combining thematic analysis with other qualitative techniques, such as interviews with authors or educators, could provide a more nuanced understanding of the identified trends in future studies. Despite these limitations, this analysis of *Pedagogical Review* sheds light on valuable research directions for aspiring scholars in the field of pedagogy.

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Early childhood educational contexts and the development of democratic citizenship. Exploring key concepts in theory and practice

Evangelia Kalogirou & Aikaterini Michalopoulou

Introduction

In modern, constantly evolving societies filled with challenges, democracy remains a subject of negotiation at social and political levels. In educational research, democracy and education, as concepts, are approached as being involved in a reciprocal relationship (Moss, 2011). Democracy functions as a value system that affects educational planning and teaching practices, while education serves as a "means," a framework for strengthening democratic culture and, hopefully, social cohesion, solidarity, and individual development.

The ideas of theorists such as Dewey, who envisioned the democratic school not as merely a framework for informing tomorrow's citizens but as a dynamic, shared experience or "a mode of associated living" (Dewey, 1916) where everyone can participate and express themselves with equality, serve as a starting point for pedagogical research with theoretical and empirical orientations, recognizing the complexity of the educational field (Cohen et al., 2023).

In the context of preschool education with a democratic, socially and politically active orientation, Moss notes that preschool students and teachers should participate in decision-making processes together, defining the scope and content of the school's actions. They can co-shape the learning environment and engage in reflective, collective processes of "evaluating" the learning experience, such as "meaning-making" techniques (Dahlberg et al., 2007). Finally, they are encouraged to question dominant and entrenched social perceptions, aiming to drive change. For the purposes of this study, we focus on democratic citizenship within the preschool educational context, providing a critical review of previous literature in the field.

Theoretical Background

The literature on democracy in education in recent decades has focused academic discussions on both theoretical and empirical approaches (Formosinho & Formosinho, 2015; Moss, 2014; Cameron & Moss, 2020). At the same time, interest in education for democratic citizenship at the European and international levels has been increasing since the beginning of the twenty-first century (Council of Europe, 2000 and 2002; Osler & Starkey, 2006). The concept of citizenship is a negotiable and contested field in social and political theory, and its application to education, particularly for very young children, includes various definitions. It is approached not only as the relationship of the individual to the institutional state or political representation within state decision-making centers,

but also as a concept of belonging in today's society (Delanty, 1997; Osler and Starkey, 2006). Additionally, the ideas of the active citizen, the cosmopolitan citizen (or global citizen), and citizenship for young children are emerging as important dimensions within the field. The officially adopted educational policy by the European Union promotes democratic citizenship as a priority. The Charter on Democracy and Human Rights Education is now a reference point, forming the basis for applied educational practices, knowledge exchange, and the redefinition of priorities for future actions by the Council of Europe (Council of Europe, 2010 and 2017).

Method

In this study, we conducted a systematic literature review to explore early childhood educational contexts and the development of democratic citizenship. We aimed to identify previous research and the key concepts associated with education for democratic citizenship.

Our search strategy involved using scientific databases and keywords such as "democratic citizenship," "early childhood education," "preschool education," and "democracy at school." This approach allowed us to examine various theoretical and methodological perspectives, including typologies, ethnography, action research, and national curriculum studies. These diverse approaches share a common goal: exploring how to strengthen a democratic educational culture.

Research Questions:

- How is democratic citizenship researched in the context of early childhood education?

- What core concepts are identified as essential for fostering a democratic culture within early childhood educational settings?

Main Axes of Analysis:

1. Methodological Approaches: This axis explores the various research methodologies used to investigate democratic citizenship in early childhood education.

2. Conceptual Frameworks: This axis identifies the key concepts that describe:

1. The student-teacher relationship within a democratic classroom.

2. The child's development as a member of society and a responsible citizen.

Results/Outcomes

Regarding the first axis of analysis, the research findings indicate that qualitative approaches, such as action research, were chosen to address issues such as anger and anxiety (Sánchez-Blanco, 2015). Focusing on achieving equality in children's participation, removing stereotypes, and democratizing the overall school culture, these interventions adopted a reflective orientation. Ethnographic methodologies were chosen to illuminate the diverse parameters of the interrelationships that develop within pedagogical actions (Berit Bae, 2009; Sousa & Oxley, 2021; Veloso, 2017; Wilson, 2015). Researchers argue that

extended time in the field, observing both children and teachers closely, helps reveal weaknesses and misconceptions in educational practices. In the context of our discussion and focusing on the second axis of analysis, democratic citizenship in education involves the following central concepts: Participation (equality of participation, participatory decision-making), Democratic processes (problem-solving, school council), and Collective development of synergies. These concepts define two important dimensions in educational practice: the student-teacher relationship and the child as a citizen. The shift towards a more collaborative student-teacher relationship is supported by educational methods such as involvement in critical discussions with a reflective orientation on issues like urban violence and elections. By working with themes like poverty, labor, and politics, children can acquire an active and responsible attitude towards public issues. Within this framework, the child is viewed as an individual with rights and a voice in society, and children's opinions are validated and respected (Veloso, 2017). The school council serves as the main body where children's opinions are expressed and decisions are made through a participatory process, giving children a voice in decision-making (Tan, 2019).

Conclusions/Discussion

In recent decades, educational research focusing on citizenship and democratic culture in schools has provided valuable insights across various domains. Researchers in this field have predominantly employed qualitative methodological approaches to account for the complexity of the educational process and the various relationships and interactions that emerge within the classroom. Additionally, research on national curricula highlights how the prescribed content and pedagogical methodologies promote a participatory and active role for children (Melasalmi et al., 2022). Researchers suggest that empowering children as active, participatory citizens requires encouraging them to engage with their communities and make decisions that impact their lives (Arthur & Sawyer, 2009). Teacher roles, student roles, and relationships with parents and the local community are all essential parameters in this direction (Wilson, 2015). Despite the growing interest in the field, this study identifies challenges that remain to be addressed. Teachers need to critically evaluate official curricula and remain aware of potential political bias (Karagrigoriou, 2018). Furthermore, the notion of the child as a dependent individual persists in various educational contexts, often leading to a relatively superficial approach to citizenship in early childhood. In other cases, the child is viewed as needing adult guidance and control (Philips et al., 2020).

Keywords: Democratic citizenship, early childhood education, participation

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The Role of Artificial Intelligence (AI) in Primary Education: Enriching the School Curriculum to Engage Students and Creatively Enhance Critical Thinking

Aikaterini Vergetaki-Peirasmaki

Introduction

According to Einstein, "Imagination is more important than knowledge", "Anyone who reads too much and uses their own brain too little falls into lazy habits of thinking", and "Education is not the learning of facts, but the training of the mind to think." According to William Ralph Inge, "The aim of education is the knowledge not of facts but of values", and according to Margaret Mead, "Children must be taught how to think, not what to think." These quotations clearly illustrate the purpose and role of education, which is to cultivate critical thinking in students. Unfortunately, the modern educational system heavily relies on rote memorization and the uninspired transmission of knowledge, almost entirely neglecting the cultivation and enhancement of critical thinking among students.

On the other hand, students often show indifference toward their lessons but display greater interest in using new technologies, which provide them with a diverse and interactive environment filled with images and sounds that are incomparable to the traditional schoolbook and its exercises. This is the primary reason for selecting this topic—namely, the use of digital Artificial Intelligence (AI) assistants in primary education as a tool to enrich the school textbook and creatively contribute to the strengthening of critical thinking.

Theoretical Background

Artificial Intelligence (AI) has rapidly evolved, finding applications across numerous sectors, including education. In primary education, AI holds transformative potential by delivering personalized learning experiences, boosting student engagement, and cultivating critical thinking skills. Integrating AI into educational settings allows for customized instruction tailored to individual student needs, addressing diverse learning paces and styles. This personalized approach not only improves academic performance but also fosters a more inclusive learning environment.

AI technologies create interactive and adaptive learning experiences. These tools provide real-time feedback, aid in problem-solving, and support teachers by automating administrative tasks, enabling educators to concentrate more on teaching strategies and student interaction. For instance, AI-driven platforms can analyze student performance data to identify learning gaps and recommend targeted interventions, thus enhancing educational outcomes.

Additionally, AI in primary education can stimulate students' curiosity and creativity. Interactive AI applications, including educational games and virtual labs, make learning

more engaging and enjoyable. Through AI, educators can present complex concepts via interactive simulations and visualizations, rendering abstract ideas more tangible and understandable for young learners.

However, the use of AI in education also brings ethical and practical challenges, such as data privacy, equitable access, and the necessity for teacher training in AI tools. Despite these hurdles, the potential benefits of AI in advancing primary education are substantial. By fostering an environment that values creativity, critical thinking, and personalized learning, AI can significantly influence the future of education.

Method

Personalized learning, powered by Artificial Intelligence (AI), is transforming primary education by addressing each student's unique needs. AI-driven platforms gather and analyze data on students' learning styles, strengths, and weaknesses, enabling the development of customized learning pathways that adapt in real-time. This ensures that students progress at their own pace, with adaptive systems providing tailored feedback and resources. For instance, intelligent tutoring systems can offer extra exercises for challenging concepts or advanced materials for quick learners.

Additionally, AI fosters an inclusive learning environment by identifying and supporting students with learning disabilities or those who are otherwise marginalized, ensuring they receive necessary attention and resources. AI also aids teachers by automating administrative tasks like grading and attendance, allowing them to focus more on teaching and personalized student support.

The use of AI in primary education enhances critical thinking and problem-solving skills by presenting complex concepts through interactive simulations and gamified learning experiences. This approach helps students explore subjects more thoroughly and retain information more effectively. Despite challenges such as data privacy and equitable access, AI's role in creating a personalized, engaging, and supportive educational experience is significant, promising substantial improvements in the quality of primary education.

Results/Outcomes

The introduction of Artificial Intelligence (AI) in primary education has ignited a debate about its potential to transform teaching and learning. While AI offers exciting possibilities for personalization, cognitive development, and accessibility, its implementation requires careful consideration.

AI can personalize learning by tailoring instruction to individual needs and paces. Imagine intelligent tutors providing real-time feedback and targeted support, fostering deeper understanding. Additionally, AI tools can stimulate critical thinking through interactive simulations and gamified experiences.

AI also promotes inclusivity by offering personalized resources for students with diverse needs. AI-powered tools can translate text, provide audio descriptions, and personalize instruction for those with learning difficulties. This ensures that no child is left behind.

AI empowers teachers by providing data-driven insights into student progress. This allows teachers to focus on high-quality instruction while AI suggests personalized interventions. Additionally, AI can facilitate professional development through tailored training modules.

Beyond these benefits, AI presents opportunities for assessment and feedback. AI-powered tools can analyze student work, identifying strengths and weaknesses, and provide automated feedback that supplements teacher evaluation. This frees up valuable teacher time and allows for more targeted interventions.

Furthermore, AI can curate and personalize learning materials. Imagine AI systems that recommend learning resources based on individual student interests, learning styles, and progress. This can create a more engaging and effective learning environment.

However, ethical considerations remain. Data privacy and security are paramount. It is essential to address potential biases in AI algorithms to ensure fair and equitable education.

In conclusion, AI holds significant promise for revolutionizing primary education. However, a cautious approach is necessary to address challenges and ensure AI aligns with ethical principles and educational best practices. As AI technology evolves, its impact on primary education will continue to shape the future of learning.

Conclusions/Discussion

The introduction of artificial intelligence (AI) into primary education has sparked a vibrant discussion regarding its potential impact on student learning. Supporters of AI in education highlight its ability to personalize the learning experience, tailoring it to meet the distinct needs and abilities of each student. By utilizing advanced algorithms, AI systems meticulously examine student data, allowing for the development of personalized learning paths that promote deeper understanding, independent thinking, and self-directed learning. Through AI-powered platforms, students receive challenges and feedback tailored to their individual progress, nurturing the critical thinking skills necessary for navigating today's complex world.

Nevertheless, opponents of AI integration raise legitimate concerns about potential drawbacks, such as diminished human interaction and ethical issues like breaches of data privacy and biases in algorithms. Despite these concerns, advocates argue that AI can complement traditional teaching methods, acting as a catalyst for improved learning outcomes and skill development. However, it is essential to strike a balance between technology and human instruction. Educators must carefully consider the ethical implications of AI implementation, ensuring responsible use of student data and equal access to AI-driven educational tools.

When implemented ethically, AI has the potential to equip students with the critical thinking skills required for success. By thoughtfully integrating AI into primary education, educators can cultivate a generation of digitally literate individuals capable of confidently navigating the complexities of the modern world, thereby fostering cognitive growth and success in an ever-changing digital landscape.

Keywords: Artificial Intelligence (AI), Primary Education (PE), Critical Thinking (CT), Personalized Learning Approach (PLA), School Textbook Enrichment (STE).

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Cultivating Critical Thinking in Elementary School: An Example of Utilizing Artificial Intelligence Tools

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Introduction

Continuous social and technological advancements, along with the vast volume of information and the new conditions shaping daily life, have elevated critical thinking skills to prerequisites for further student development, both personally and socially, as well as professionally. In the future, specialized knowledge will not be as crucial for citizens and workers as their abilities to comprehend and learn each new piece of information (Dilley et al., 2015). In line with this, educators are creating contemporary learning environments and adopting alternative teaching strategies.

Artificial intelligence is an innovative tool stemming from the field of computer science (Brustenga et al., 2018). It performs functions such as voice recognition, analogical reasoning, perception, learning, prediction, problem-solving, decision-making, collecting and analyzing large volumes of data, and representing knowledge. Its goal is to create intelligent machines capable of solving problems like the human brain, without involving subjective judgment and without limitations in memory or speed (Luckin et al., 2016). In education, these tools can support the development of critical thinking skills by: a) providing students with immediate feedback on their work, b) helping them identify and correct their errors, and c) enhancing their thinking skills (Barana et al., 2023; Muthmainnah et al., 2022). The aim of this paper is to present the effectiveness of artificial intelligence tools in cultivating critical thinking skills in primary education students, specifically sixth-grade students.

Theoretical Background

According to Watson & Glaser (1980), critical thinking is described as a combination of attitudes, skills, and knowledge. It consists of research attitudes, which include the ability to recognize problems and accept a general situation, skills for managing information, and knowledge for drawing valid conclusions. Critical thinking is further divided into sub-skills: Interpretation, Analysis, Evaluation, Inference, Explanation, and Self-regulation. It is cultivated either directly through programs that teach specific cognitive skills and strategies in dedicated instructional time—the thinking skills approach—or indirectly through the teaching of any instructional subject—the content approach—or in a combined manner, known as infusion strategies.

Artificial intelligence systems collect, interpret, and process data and decide on the best actions to achieve a specific goal (European Commission, 2019). In the educational sector, a plethora of applications has been utilized in recent years, such as adaptive learning environments, open-course platforms, educational robots, and others that support

teaching and learning and provide new and personalized learning environments (Ubaldi et al., 2019). However, in primary education in Greece, only one branch —educational robotics—is utilized, and the use of artificial intelligence to cultivate other skills in elementary school students, as well as the adaptation of the educational process to the existing curriculum, has not been sufficiently studied by the scientific community (Voogt & Roblin, 2012). The present research utilizes the chatbot via OpenAI to assist students in cultivating their critical thinking skills.

Method

The chosen methodology is action research. To ensure validity, data triangulation was applied. Two sixth-grade classes participated—35 students in total—and three tools were used to record critical thinking skills: Ventista's (2019) pre- and post-test, the Cornell Critical Thinking Test X (Ennis & Millman, 2005), and Hixson et al. (2012), which were completed by the teacher for each student (Cronbach's alpha > 0.8).

The 76 items of the Cornell Critical Thinking Test X were divided into five sets of questions and used as a teaching tool in a program of five one-hour lessons. Both the students and the chatbot were required to choose the correct answer and justify it. Subsequently, a comparison was made, and it was decided which answer was correct based on the arguments provided. The chatbot was used to provide a possible answer and its justification with logical arguments, based solely on the given information, without involving other perceptions, personal judgments, or beliefs.

Results/Outcomes

This is an ongoing study, and new results are continuously emerging as the analysis is not yet complete. However, the initial findings indicate that students exhibited a fairly low average in critical thinking skills at the beginning of the program, which were cultivated throughout and showed significant improvement. Specifically, in the pre-test, 55% of students had up to three correct answers with appropriate justification out of seven questions, while in the post-test, 75% of students had five or more correct answers with appropriate justification out of seven questions.

In the first three lessons, 58% of the students' answers were incorrect, either because they chose the wrong answer or because they provided incorrect justification for a correct answer. Gradually, as the lessons progressed, after eight months, they achieved a 72% success rate in their answers.

Another significant result is that over time, 63% of the students were quicker to recognize which element they had overlooked, while the chatbot had considered it, and they were able to recognize the arguments and change their minds after receiving a complete answer with proper justification from the software. Conversely, in cases where the software provided an incorrect answer, students initially found it very difficult to identify the misunderstood element and to construct an appropriate argument to refute its answer.

However, progressively, they needed less time to convince the bot, and their responses became more targeted.

In conclusion, from the final student evaluation questionnaires after the end of the five teaching sessions of the program, it appears that critical thinking skills were enhanced by at least 35% in all students, and there was notable progress in their deductive and inductive reasoning.

Conclusions/Discussion

The 21st century is characterized by rapid changes, making the development of critical thinking in students essential for equipping them with the appropriate tools to effectively solve everyday problems. Critical thinking encourages children to think independently, seek logical answers, evaluate the information they receive, and assess the sources of this information. This ability is particularly important in an age of information overload and fake news, as future adults need to be able to judge the reliability and accuracy of the information they receive (Luckin et al., 2016). Additionally, critical thinking is a skill required in the professional world, as employers seek employees who can analyze information, reflect, and propose innovative solutions. However, it has been observed that educators mistakenly believe that this skill is promoted through their daily teaching (Lipman, 2011), while research shows that specific and organized instruction is needed for its development (Monioudi, 2020).

New intelligent Artificial Intelligence systems are useful tools for educators, and it is necessary to study the field of application and utilization of these new technological tools in schools for the benefit of students. Early results from statistical analysis and qualitative discourse analysis appear to have very positive outcomes in cultivating students' critical thinking skills, but the implications and potential risks need further investigation (Martinho-Truswell, 2018).

Keywords: Critical Thinking, AI, Primary Education

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Sub Theme 5

Addressing the challenges and opportunities of Equity and Access to quality education

Quantitative Research on Educational Activities in Primary Education, within the framework of implementing the 17 Sustainable Development Goals

Anna Angelidou

Introduction

Education for Sustainable Development (ESD) is about shaping a better future, for a fairer, more peaceful, and sustainable world (Tsiokos et al., 2020). It concerns the way we think, act, and interact through the development of knowledge, skills, and values that will lead to the awareness of citizens (Kadigiannopoulos, 2015; UNESCO, 2014). According to UNESCO (2018), one of the goals of ESD is to encourage students to make decisions and take actions for the environment, economy, and society with respect for cultural diversity while promoting holistic and transformative education. The present research, carried out on a sample of primary education teachers, aims to investigate their training and actions in the school community regarding the Sustainable Development Goals (SDGs) which should be implemented by 2030. The research also investigates a possible correlation between the training of the participants and the implementation of educational activities on Sustainable Development issues in primary education. In other words, to what extent have teachers been trained and implement the 17 Sustainable Development Goals of the UN at school. This research is oriented towards one of the main methodologies that can contribute to the implementation of Goal 4 (Quality Education), which is the development of educational activities through teaching scenarios for the cultivation of the other Sustainable Development Goals.

Theoretical Background

It is essential that ESD should be included in the educational process, as referred to in Target 4.7: "all learners acquire knowledge and skills needed to promote sustainable development, including among others through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship, and appreciation of cultural diversity and of culture's contribution to sustainable development" (UNESCO, 2020). ESD contributes to the upgrading of quality education, confirming the need for Goal 4.7, by emphasizing that when curricula integrate the three dimensions of sustainability, students develop skills both cognitively and socially, while values are cultivated that are necessary for the promotion and maintenance of sustainable societies (Laurie et al., 2016). The need to introduce new educational activities and innovative actions into the school through ESD is imperative to address the existing environmental reality shaped by climate change, but also by social problems, which often result in various educational and social exclusions (Schlosberg, 2013; Kotsios, 2010). Therefore, the present research deals with a crucial and topical issue,

such as the implementation of the 2030 Agenda for Sustainable Development and aspires to investigate the readiness of teachers to cultivate sustainability goals through educational programs.

Method

In order to investigate the training of teachers and the implementation of various educational activities in school environments, quantitative research was chosen. This choice was made as quantitative research allows for easier processing of results compared to qualitative analysis, since the answers of the respondents are given in the way defined by the researcher (Thearenou et al., 2007). Furthermore, through the questionnaire, information can be collected from many people at the same time, regardless of their geographical location (Brewerton & Millward, 2001). The questionnaire was answered by 145 primary education teachers. To analyze the data, descriptive statistics (tables with percentages) and correlational analysis (Pearson Correlation) were used with SPSS software, in order to investigate the correlation between the training of sample teachers on educational matters in general, but also specifically in ESD matters, and the practices implemented by the teachers in the schools where they work. First, the frequencies and percentages of the responses given by the respondents to each of the questionnaire questions were calculated. Then, a Pearson's correlation test was conducted between the questions related to the training and those related to the practices.

Results/Outcomes

Based on the findings of the research, the following conclusions were drawn: teachers attend training seminars on educational issues quite often, but most of them have not received training on sustainable development and sustainable school issues, nor do they have sufficient information on the 17 Sustainable Development Goals of the UN. As a result of this insufficient training, educational actions and programs aimed at a sustainable school and linked to the 17 UN Goals are not implemented at a sufficient level in primary education schools. The analysis of correlations between teachers trained in ESD and their implementation practices in primary education schools showed that most teachers who were trained in sustainability and ESD are oriented toward the implementation of environmental education programs and environmentally friendly technologies. In other words, the survey showed that teachers who have received greater training in sustainable development mainly implement environmental education programs and focus on environmentally friendly technologies. Thus, we observe that ESD and Sustainable School have been linked by teachers mainly with environmental education programs, confirming the research of Sfakianaki & Papastefanaki (2020), and not with cultural programs, health education programs, or gender equality and other issues based on UN Goals and ESD. In other words, teachers do not introduce the holistic approach to sustainability, which includes three dimensions: ecological, economic, and social. It is significant that teachers who have received more training in sustainable development subjects show better

cooperation with their students in the school environment, supporting the findings of Verhelst et al. (2021) and Katsenou et al. (2017).

Conclusions/Discussion

Education policy should focus on training teachers in (a) the 17 Sustainable Development Goals and (b) Sustainable Schools, adopting a holistic approach to school sustainability within an inclusive school environment. The educational programs should focus on the three pillars of sustainable development with cultural, environmental, and social orientations, within a cooperative framework that emphasizes mutual assistance among students. The Sustainable School should be framed with innovative educational programs (Kalaitzidis & Nomikou, 2014; Trikaliti, 2015) that address contemporary problems and challenges in order to implement Agenda 2030. This challenge requires the training of teachers on issues of sustainability, specifically on the 17 goals set by the UN, as well as removing any stereotypes that may hinder social development. In doing so, the school will be a space of respect for human rights, reflection on the climate crisis, and a willingness to improve the negative aspects of society. In conclusion, the sustainability of natural and social systems can be achieved through the implementation of the 17 Sustainable Development Goals of the UN. The school should in the long term serve educational processes that contribute to this effort.

Keywords: ESD, Sustainable Development, Quantitative Research.

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DINAMI- Developing INclusive Actions for MInors: A University service-learning project in Juvenile Correctional Facilities

Anastasia Gkaintartzi, Magda Vitsou, Sotiria Kalbeni & Kostas Magos

Introduction

This presentation outlines a collaborative project coordinated and run by the Departments of Language and Intercultural Studies and Preschool Education of the University of Thessaly in cooperation with the Juvenile Correctional Institution for boys of the city and its school. The project aims to promote contact and intercultural communication among university students and the juveniles-students of the institution. More specifically, throughout this pilot service-learning project, weekly activities were conducted by a group of 10 students from the University Departments with the juveniles in the Institution. These activities were guided and coordinated by our scientific team targeting contact, intercultural dialogue, communication, and exchange, ultimately aiming at identity empowerment and promoting inclusion. The collaborative, participatory activities were designed and conducted using the concepts and tools of a plurilingual and intercultural perspective, translanguaging, art-based learning, and creativity. After presenting parts of the activities and the creative products from the participants, we discuss data from the students' reflective diaries, reports, and interviews to study the impact and potentialities of the project, focusing on the students' perspectives.

Theoretical Background

Juvenile Correctional Facilities are places for the rehabilitation of identities of juvenile offenders. However, according to critical criminology, delinquency is driven by social inequalities, and from a broader perspective is the result of social, economic and political forces, rather than person pathologies (Agnew & Cullen, 2003). Drawing on this theoretical framework and according to several researchers, a large number of offenders come from backgrounds with limited educational opportunities or have had negative experiences during compulsory education. Because of these previous negative experiences, offenders actually become less receptive to the educational process. Giving up and developing defense mechanisms such as negativity, shifting the topic of discussion, or distorting what is being said are signs of refusal to participate in education and, by extension, the reasons for low educational readiness (Behan, 2021). Students' population in correctional facilities, often show school denial, poor performance, academic inadequacy and failure, leading to low self-esteem (Hirschfield, 2014). Taking this into account, this project employs dialogic strategies to create alternative forms of education for juvenile offenders, in order to create the ground for equal participation, placing all voices at the centre of the dialogue.

More specifically, the project followed the educational approach of service learning (SL), which refers to an innovative, experiential teaching-learning methodology that combines academic learning with community service (Celio et al., 2011), integrating meaningful community service into the curriculum, aiming at promoting civic engagement and responsibility, enhancing learning and strengthening communities (Pinto & Costa-Ramalho, 2023). SL methodology has had an increasingly wide application in higher education, with important benefits for students' personal, academic, social, and citizenship development.

Concerning the educational activities designed and conducted in the project, they draw from the fields of translanguaging pedagogy, art-based techniques, drama-in-education techniques, and intercultural education. The use of such experiential activities and arts appears to have transformative effects on the education of juvenile offenders, as it leads to reflection through cognitive and emotional processes (Brewster, 2014). Given that transformative learning is closely linked to personal experience, the experiential nature of the activities gradually contributes to the transformation of juvenile offenders' experiences through the exploration and adoption of new roles (Halperin, Kessler & Braunschweiger, 2012). Such creative activities positively affect the lives of offenders' post-release, as well as their overall personal and social adaptation (Koch et al., 2015). Through action and the "utilization" of personal experiences, participating offenders are led to empowerment, emancipation, and self-efficacy. A new perspective is opened, making it possible to envision the future, with notable instances of internal transformations, as highlighted in the research by Page, Chamberlain, and Gratton (2022).

Method

In terms of research methods, the project followed a critical action research approach (Higgins, 2004), using narratives, discussions (Magos, 2014) and creative activities. It took the form of a narrative and creative workshop in which participants reflected on their stories, shared lived experiences through their own voices, co-created and thus were encouraged to reframe their identities through critical pedagogy (Magos, 2014). The juvenile participants had diverse linguistic and culture profiles. Most of them were of Roma origin, while others had migrant backgrounds, such as Albanian and Pakistani.

The action research evolved in three cycles. Each cycle followed the standard procedure of planning, action, observation, and reflection. The first cycle focused on team-building, the second on sharing and co-creation and the third on reflection. The university team of students, who had received relevant training, took on the role of educational co-researchers under the guidance of the coordinators, who were actively involved in coordinating the research process. The research tools used were reflective diaries, reports, field notes, and interviews with the students. Our research aims involved the study of the possible transitions that could develop in the collaborative group of juveniles from the correctional institution and the peer university students through their active participation in the project. This presentation focuses on looking into the potentialities, and possible benefits of the project for the participant students, as well as the potential challenges.

Results/Outcomes

Drawing from a qualitative analysis of the data, it was found that the students gradually developed reflexivity and empathy, raising awareness and reflecting more criticalyl on preconceptions and stereotypes concerning juvenile offenders (Halperin, et al. 2012). They developed critical awareness of their complex stories and multiple identities while also developing relationships of shared trust and equitable communication in which diversity is respected and valued. Critical and creative thinking, openness towards diversity, awareness of their agency, and civic responsibility were also evident in the data. The need to communicate, relate to, and meaningfully connect with each other was found an important aspect shared by all participants, juveniles from the Institution, and the students (Magos, 2014; Page et al. 2022).

Conclusions/Discussion

It could be concluded that using the service-learning methodology and approach, integrated with critical research methods, such as critical action research, could provide valuable possibilities to educate socially responsible citizens, professionally competent (also in research), socially active and critical of social stereotypes and injustice, which further marginalize disadvantaged people and groups. Integrating active civic participation and critical pedagogy-action research into the curriculum can thus support the development of important of social, civic, and research competences.

Keywords: Service-learning, critical action research, Juvenile Correctional Facilities, inclusion.

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Inequalities and discrimination in the school class: Interpreting student teachers' views

Christos Govaris, Stavroula Kaldi, Ourania Maria Ventista, Vassiliki Tzika, Alexandra Stavrianoudaki & Nikolaos Manesis

Introduction

Quality education globally requires equitable access to all students from various socioeconomic, ethnic and cultural backgrounds as well as individual abilities. Discrimination based on race, gender and ethnicity further exacerbates these inequalities (OECD, 2022; Rumberger & Paladry, 2022; World Bank, 2023). Research highlights that students from marginalized backgrounds face systemic obstacles, including underfunded schools, biased curricula, and inadequate resources (OECD, 2022).

Furthermore, inequalities and discrimination in school classrooms can set significant challenges to achieve equitable learning for all students (Ladson–Billings, 2019; Ferguson, 2021). Teacher education courses aiming to increase awareness about inequalities and discrimination challenges for school teachers, can foster more inclusive environments where all students feel valued and empowered to succeed (Bartolo, 2008).

In addition, inequalities and discrimination in the class environment can be examined through various theories, each providing unique insights into how class daily life incidents can impact students. Student teachers' lenses on capturing these inequalities and discrimination in the class is crucial as teacher education courses may need to shift their focus in terms of content and procedures to create classrooms that support diversity and foster educational equity for all students (Ankomah, 2020).

Critical Incident (CI) methodology has been claimed to be very valuable for mirroring inequalities, social injustices and the opposite (i.e. attempts for inclusion, social justice and educational equity) in the classroom environment (Philpot et al., 2021).

In this study, we aim to describe and interpret student teachers' views about observed inequalities and discrimination occurred in the primary school class with the use of CI methodology in a teacher education course.

Theoretical background

Inequalities and discrimination in school classrooms can be examined through various theoretical lenses, each providing unique insights into how systemic barriers impact students. They are as follows:

The "Maslow's hierarchy of needs (McLeod, 2007) emphasizes the importance of fulfilling basic psychological and safety needs before students can achieve higher levels of learning and self-actualization. When schools fail to provide a safe and supportive environment, particularly for marginalized groups, students struggle to reach their full potential.

The Frankfurt Critical School theory (McKenzie, 2020) emphasizes the role of societal structures in perpetuating inequalities. Critical theorists argue that education can serve as a mechanism for social reproduction, reinforcing class divisions and cultural hegemony. They advocate for a pedagogy that encourages critical consciousness, enabling students to recognize and challenge oppressive structures (Apple, 2022). Moreover, critical pedagogy as developed by Paolo Freire (1970) advocates for an education that empowers students to question and challenge inequalities in society. Freire emphasized dialogue, critical thinking, and the importance of student voice, arguing that education should lead to social transformation by encouraging learners to reflect on their realities (Freire, 1970).

The poststructuralist theories and more specifically Judith Butler's (1988) research on gender performativity challenge fixed notions of identity, suggesting that inequalities in the classroom are often rooted in rigid societal norms. By questioning these constructs, educators can create spaces that celebrate diversity and encourage all students to explore their identities without fear of discrimination (Weedon, 2022).

Therefore, democratic education seems to be crucial in real practice. Democratic education theorists advocate for classrooms that foster participation, dialogue, and critical thinking. They argue that equitable education is vital for a functioning democracy. When students from diverse backgrounds are excluded or marginalized, their voices and experiences are absent from democratic discourse, leading to a less informed and inclusive society (Dewey, 2023).

Method

The methodology applied is qualitative and draws from Philpot et al's study (2021) the Critical Incident Technique (CIT) which is suitable for understanding context specific social and educational justice pedagogies. In this study the aim was to understand student teachers' vision of context specific social and educational justice pedagogies. The critical incident during the session/lesson refers to what the student teacher as an observer believes is related to promoting social and educational justice or injustice, inequalities or discrimination in the class. A "critical incident" can be a momentary incident or an issue that spans the entire lesson/session. The researchers showed in one of the university sessions Philpot et al.'s template of CIT (2021) and the main elements of social justice content whereas next, the participants attempted to give examples for each category of critical issues of and approaches to social and educational justice. Then, the participants observed classes during their teaching practice component of their studies and reported in writing critical incidents of what they grasped as indicating inequalities and discrimination. For the purpose of this study only the reports from 39 participants who filled in the consent form were used.

Research questions:

1. What do student teachers report as critical incidents of inequalities and discrimination in the school class?

2. How do student teachers perceive critical incidents of inequalities and discrimination in the school class?

Results/Outcomes

The main themes drawn from the content analysis are as follows:

(a) Student teacher participants reported CIs indicating democratic response or deficit. According to participants' views teachers observed could be responsive to pupils' learning difficulties through the application of individualized work and private discussions, to providing room for individual expression which also offered emotional security and support based on Maslow's theory and the recognition justice which presents acceptance and respect of individual needs, traits of pupils according to the critical theory of Frankfurt. In other cases, teachers observed did not pay attention to pupils learning needs (i.e. in Maths the teacher did not give the appropriate time to all pupils to understand the new content knowledge and finished the session with only three pupils having comprehended the new content).

(b) Culturally responsive teaching in positive and negative expressions. Some participants reported CIs with the teacher addressing the diversity needs of pupils in the class by giving the opportunity to all pupils to express their point of view of events with sensitivity to ethno-cultural backgrounds. It was mostly pupils who did not have the cultural sensitivity to peers from different ethno-cultural backgrounds and the teacher reacted to balance this balance. Moreover, there were cases of CIs reported where the teacher observed, depicted inclusive teaching behaviour (i.e. splitting pupils in mixed ethno-cultural, gender and ability group works). However, again there were CIs in which teachers observed who did not meet the culturally responsive teaching. For example in one case where the teacher did not allow any room to a pupil who was making trouble in the class to express himself and attributed him traits of being disruptive or in another case where the teacher verbally expressed the slow pace of learning and comprehending new content knowledge and in a third case where the teacher left a Roma students be isolated at the back of the class. Interesting to note is that in one CI report the recognition justice case depicted had two different pictures from the class teacher and the English language teacher. The class teacher did not include in learning tasks the Roma pupil sitting at the back of the class whereas the English and the Arts teacher included the Roma pupil in group learning tasks. In the non culturally responsive teaching cases pupils do not cover the security and belonging needs of Maslow's pyramid of human needs as well.

(c) Student teacher participants' perceptions of discrimination during teaching and learning appeared to be rather sensitive about stereotypical constructions of gender, race and culture.

Conclusions/Discussion

Addressing educational inequalities requires a multifaceted approach that draws on different theories to create inclusive environments where all students can develop and contribute to a democratic society in the future.

The analysis of the student teachers' CI reports indicate that the participants take into account and rely on a wide range of theories of social justice, without giving a clear picture of which specific elements of these theories they take into account. More specifically, the participant student teachers in the descriptions of CIs appear to take into account without specifying these (a) the "humanism" theoretical approach (Maslow), (b) the Frankfurt Critical School theory, (c) poststructuralist theories / theories of cultural inequality (e.g. Butler) and (d) theories of democracy. They particularly mention actions in the classroom that are characterized by critique against social conditions/processes that reproduce inequalities as well as in actions undertaken by teachers to enhance critical thinking and to care for democratic and culturally responses.

Concluding, we can say that the participants' views are based on a very broad conception of social justice in order to detect/record, through the critical incident technique, the widest possible range of social justice practices/actions which could provide the opportunity to analyse and integrate their perceptions into different theoretical approaches.

Further research applying different methodological techniques could highlight how student teachers can change pedagogical phenomena in the class concerning more generally educational inequalities and social injustice.

Keywords: school class inequalities, discrimination, critical incident technique

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Teaching intercultural education in the university: reflections and possibilities

Dimitrios Zachos

Introduction

The curricula of perspective teacher schools (schools of Pedagogy in Greece) need to be designed to enable future teachers to think critically, stay abreast of methods and innovations, and design and deliver teaching that maximizes the skills of all children. This goal is supported by intercultural education, a set of theoretical elaborations and educational practices that aim to provide the best possible education to all children, regardless of their social class, gender, nationality, ethnicity, culture, religion, linguistic group, sexual orientation, or abilities/disabilities.

Multicultural/anti-racist/intercultural education arose from the need to integrate and provide better educational pathways for 'different' children. However, it is not solely an initiative or set of educational practices for these children; it encompasses all students, as traditional education has historically overlooked issues such as economic inequalities, poverty, racism, and unequal distribution of power.

In this (proposed) paper, I discuss how I structure, organize, and conduct an intercultural education module over the past twelve years. The discussion includes my theoretical choices regarding intercultural/multicultural education, as well as my reflections on the teaching practices I have followed.

Theoretical Background

Future teachers usually have little or no intercultural experience (Melnick & Zeihner, 1995). They often have misconceptions about diversity and 'different' people, which leads them to have limited expectations of these groups (Zeichner, 1993). Intercultural education aims to help correct this by providing teachers with the knowledge and skills to understand the role of social inequalities in students' education and to develop appropriate pedagogical practices (Howard, 2003).

This philosophy underlies the course on Anti-Racist, Anti-Sexist, and Intercultural Education, which I have been teaching for the past twelve years. This course is part of the compulsory curriculum in the Department of Primary Education at the Aristotle University of Thessaloniki. The course's goal is to introduce students to the theory of intercultural education for social justice (Zachos, 2022, 2023, 2024), providing them with foundational knowledge and guidelines to: recognize and counteract economic inequalities, racism, and the unequal distribution of power—especially their impact on education; develop tools to address contemporary social demands; and help improve students' learning and life opportunities to combat inequalities in schools and society (Cochran-Smith, et al., 2009).

Method

The goal of my paper is to explore the context and outcomes of teaching the course on Anti-Racist, Anti-Sexist, and Intercultural Education. The primary research questions are:

1. What are the main theoretical orientations of intercultural education in the course, and how are they supported?

2. What are the course outcomes, and where is there room for improvement?

To serve the aims of the research, I conducted a critical autoethnography, examining my teaching experiences as a university instructor. Autoethnography is "an approach to research and writing that seeks to describe and systematically analyze (graphy) personal experience (auto) in order to understand cultural experience (ethno)" (Ellis, Adams, & Bochner, 2011, p. 273). Autoethnography should be based on data (such as archival material, recorded interviews, field notes, etc.) and should synthesize and interpret, linking its themes, questions, and findings to broader social phenomena and structures (Zachos, 2018). In my research, I examined data from my personal diary and course materials (notes, PowerPoint slides, and e-learning announcements).

Results/Outcomes

The course provides knowledge of basic concepts, including social differentiation, stereotypes, prejudices, discrimination, racism, culture, and historical information on ethnic and national differentiation in Greece and elsewhere, based on scientific data. The course's aims and objectives are supported through lectures, group discussions, guest speakers who are active on relevant issues, and visits to places of interest (such as schools and museums). The course also assigns students to schools with high proportions of students from "different" social groups during their practicum, to further the course's goal.

As for the course's impact, Zachos & Trochoutsou (2023) found that students in the Department of Primary Education at Aristotle University of Thessaloniki demonstrate the knowledge and skills needed to respond effectively to racism, ethnocentrism, and discrimination. However, I believe there is room for further improvement, possibly by incorporating modern communication platforms (TikTok, YouTube), as well as other media (such as music, TV spots, and films) that could engage students.

Conclusions/Discussion

In order to achieve the course's objectives, future teachers must overcome stereotypes and deconstruct prejudices they may have acquired from their surroundings. This is not always easy. One obstacle stems from the course's non-compulsory attendance policy. Although students in pedagogical departments in Greece are training to become teachers, attendance is generally not required (apart from the compulsory practicum). Consequently, some students, taking advantage of this flexibility, do not attend, thus missing out on the reflections and activities that the course offers.

For those students who do attend, the semester-long interventions may not be sufficient in some cases to change entrenched beliefs and attitudes. It is unlikely that a semester can fully transform individuals with racist or homophobic views into teachers who will support and educate diverse students as needed (Gomez, 1993). Achieving this requires broader partnerships, interventions, and collective effort.

Keywords: Teachers, Intercultural Education, Social Justice.

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Sub Theme 6

Advancing Teacher Training and Professional Development

Student-teachers on stage: Navigating emotional challenges with appropriate skills

Aikaterini Vasiou & Georgios Vleioras

Introduction

Practicum experience is considered one of the most crucial and central elements of teacher education programs, providing student-teachers with the opportunity to examine the knowledge they acquire during their theoretical studies and apply this knowledge in the classroom (Hamaidi et al., 2014). This study investigates the emotional challenges reported by student-teachers during their practicum and the skills they reportedly bring to address these challenges. Our theoretical framework is the narrative worldview approach, which focuses on stories as meaning-making processes and sees people as experts in the challenges they face. In this way, we can capture the richness and complexity in the students' accounts of the challenges they face and the skills they use during the practicum. We present the preliminary findings of our study.

Theoretical Background

Although research on teacher education has, for decades, mainly focused on the cognitive domain, preparing student-teachers in teaching knowledge and skills (Day, 2014), scholars have recently recognized the contribution of affective components as well (Chen, 2021).

Kaldi (2009) examined Greek student-teachers' perceptions of self-competence in teaching after a four-year university course, and the relationship between their well-being, views, emotions, and stress regarding teaching and their teaching competencies during their undergraduate school teaching practice. One hundred seventy final-year student-teachers participated in the study, revealing moderate levels of general teaching skills and indicating that they felt competent enough to start teaching. In addition, their personal well-being was not strongly affected by the teaching itself, and they did not experience high levels of stress.

However, other scholars indicate that student-teachers face many emotional challenges as they learn to become qualified teachers (Chen et al., 2022). For example, they experience negative emotions such as anxiety, frustration, guilt, and anger due to their limited understanding of teaching content, imbalanced power dynamics between themselves and their mentors, and challenges with emotional regulation within school environments, local authorities, and cultural diversity (Yuan & Lee, 2016; Hayik & Weiner-Levy, 2019).

The theoretical background of the current study is the narrative worldview introduced by Combs and Freedman (2012, 2016). The narrative worldview is a way of viewing individuals, their relationships, and their lives, originating from White's work (2007) on the narrative approach to therapy and community work (for an introduction, see Morgan, 2000). It

encompasses several principles, only some of which are relevant to this project. First, it focuses on stories as meaning-making processes and not on truths. By focusing on students' stories, we can gain deeper insight into the meaning they assign to their experiences. Second, it sees people as experts in the challenges they face and is, thus, interested in the skills and values they bring to their lives; accordingly, it favors local and contextualized knowledge rather than universal and generalized knowledge. Such a perspective can have an empowering effect on the students participating in this study, as we ask them what they can do and not what they cannot do. Finally, this perspective views people's actions as intentional, stemming from their dreams, hopes, and commitments. In summary, adopting the narrative worldview allows us to capture the richness and complexity in the students' accounts of the challenges they face and the skills they use during the practicum.

Method

The study was conducted from March to April 2024 in Greece. Sixteen primary education students (88% female) aged 20 years and 8 months to 25 years and 8 months (M age = 22 years and 6 months), who carried out an internship with a vulnerable student population, voluntarily completed an online questionnaire distributed by the first author. They also provided their age and gender.

The students practiced in both primary schools and support structures, offering psycho-pedagogical support and remedial teaching to students with special educational needs or diverse linguistic and cultural backgrounds. Participation in the internship followed an application process, with selection based on predefined criteria. The students were asked to fill in a reflection diary after the end of their internship, answering a self-devised questionnaire with two questions about the emotional challenges they faced during their practicum and the skills they used to address these challenges. We analyzed the student-teachers' responses using a semantic, experiential version of reflexive thematic analysis (Braun & Clarke, 2022). This version of reflexive thematic analysis has recently been used by researchers in psychology (e.g., Vleioras & Spyrou, 2023) and education (e.g., Bergin et al., 2023).

Results/Outcomes

We identified four themes referring to challenges: "Am I good enough?" (e.g., "The only emotional difficulty that I had was the fear that I would have a pupil that I would not be able to manage," female, 22), "Managing specific difficulties" (e.g., "One of the challenges I face is the indifference of a pupil with delinquent behavior. He does not listen to anyone, let alone me, a student," female, 21), "All went well" (e.g., "I did not face any emotional challenge," male, 21), and "Farewell" (e.g., "I am a little worried about the separation because I am very attached to the class and to the pupil I help," female, 23).

We also identified four themes referring to the strategies the students reported using to address these challenges: Looking for information from different sources (such as books,

colleagues, classmates, or university professors; e.g., "I asked other students who had completed the internship in previous semesters, and they gave me some advice," female, 22), Personal skills (such as patience, making appropriate choices, keeping calm, or thinking positively; e.g., "With enough persistence, we managed to get them to do their exercises," male, 22), Letting time pass (e.g., "I would say that I was waiting for time to help me adjust to the climate and my anxiety but also to understand exactly what help the children needed from me," female, 25), and "I am not sure" (e.g., "I can't do anything for the problem I mentioned," female, 23).

Conclusions/Discussion

By examining the interplay between emotional challenges and skills, this project aims to shed light on the critical yet under-addressed emotional aspects of teacher preparation. This work in progress contributes to a deeper understanding of how teacher education programs can better equip future educators to manage the emotional demands of classroom work.

However, this study is not without limitations. Given that the findings were obtained from the narrative accounts of 16 student-teachers in Greece, they cannot be generalized to other contexts. Future research could investigate how student-teachers experience emotional challenges and the skills they bring using field observations.

At the practical level, using proactive coping strategies (Greenglass, 2002), teacher educators can inform student-teachers about the possible difficulties and challenges they may face, helping them prepare mentally in advance and set appropriate expectations for their practicum (Chen et al., 2022). Regarding the structure and content of teacher training, emphasis should be placed on the areas where student-teachers face the most challenges, such as meeting pupils' needs, managing practicum workload, and addressing performance evaluation anxiety (Kokkinos & Stavropoulos, 2016). After the practicum, student-teachers can share their emotional challenges and the related skills, engaging in reflective discussions, which could offer opportunities to improve their capacity to reflect and understand the demands of being a teacher (Yuan & Lee, 2016).

Keywords: Emotional Challenges, Student-Teachers, Reflexive Thematic Analysis

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Change Over Time: Do Variations in the Semantic Profiles of Tools, Artefacts, Instruments, and Resources Denote Changes in Educational Research and Practice?

Marinos Anastasakis & Eleni Vasilaki

Introduction

Arguably, a significant aspect of any human activity pertains to our ability to develop, modify, and use tools. Studied by philosophers, anthropologists, psychologists, and educators, tools constitute an integral part of our everyday pursuits. In mathematics education, the interest in tools in formal contexts is apparent from the increasing number of empirical studies and theories focusing on their nature and use (e.g., Inglis & Foster, 2018).

Often, terms such as "artefact," "instrument," and "resource" are used alongside the term "tool." Some authors argue that the meanings attributed to these terms are unclear and show significant differences (e.g., Markauskaite & Goodyear, 2017), and indeed, an examination of the literature supports these claims. For example, although Monaghan and Trouche (Monaghan et al., 2016) accept as artefacts all material objects made by humans, they differ on what they recognize as a tool: for Monaghan, tools are artefacts used for achieving a goal, whereas Trouche uses the term "instrument" to describe a mixed entity consisting of the artefact and the knowledge of the person appropriating it. In contrast, Koleza (2022) considers as tools the artefacts necessary for manufacturing, repairing, or modifying, and as instruments those necessary to 'guide' a process.

Based on the above discussion, the present study seeks to identify: (1) the different meanings assigned to the terms "tool," "artefact," "instrument," and "resource" and (2) the underlying key theoretical positions each meaning carries.

Theoretical Background

This study is framed by theoretical approaches aimed at identifying and organizing meaning in text (Corpus Linguistics, Prototype Theory) and examining how research programs develop over time (Lakatos' model).

Corpus linguistics (CL) is a branch of linguistics aimed at identifying the meaning of a selected word by a researcher (node word) in large collections of written and/or spoken language (corpora). Common methods in CL include frequency lists (which record how often a word occurs in a corpus), concordance lines (the text "surrounding" the node word), and collocations (the tendency of a node word to co-occur with other words) (Brezina, 2018; Hunston, 2002).

According to Prototype Theory (PT), each concept has a conceptual core (prototype) around which knowledge is organized in a person's semantic memory (e.g., Rosch et al., 1976). Concepts are organized into hierarchical structures consisting of three levels

(superordinate, basic, subordinate), with each subordinate level encompassing more detailed information (Eysenck & Brysbaert, 2018) and exhibiting more characteristics (Taylor, 1995).

Lakatos' (1978) theory of how academic fields progress is based on the notion of a "research programme," a set of theories that are historically connected. Each research programme has a "hard core" (a collection of key assumptions and beliefs), a "protective belt" (a set of auxiliary and modifiable hypotheses used when empirical data contradict the hard core), and its "heuristic" (methods used by researchers to advance their scientific field).

Method

The corpus used in the study is a monolingual, specialized corpus consisting of 560 research papers (1,593,479 words) published in the conference proceedings of the Greek Association of Research in Mathematics Education (GARME) from 2005 to 2022. Papers were converted to plain text files, and all non-textual elements, authors' names and details, bibliographies, and any appendices were removed. Before the analysis, all stop words (e.g., articles) were removed, and lemmatization was carried out

The corpus was analyzed using the linguistic software CasualConc (Imao, 2019) and Lancaster Stats Tools Online (Brezina, 2018). The analytical approach included the following steps: (a) recording the statistically significant collocations for each term, (b) identifying individual meanings for each term by analyzing concordance lines for each collocate, (c) developing a hierarchy of these meanings based on Prototype Theory, and finally, (d) using diachronic analysis methods such as Variability Neighbouring Cluster Analysis and Wave, Peak, and Trough to identify periods of use and meanings in each period.

Results/Outcomes

An analysis of the meanings identified in the corpus revealed: (a) a shift in the focus of educators/researchers from using/studying physical tools to using/studying digital tools; (b) a temporary change in the use of quantitative research methods; and (c) the identification of three prototypes. Prototype 1 refers to any entity used to achieve a goal, with the terms "tool" and "artefact" used interchangeably.

Prototype 1 reflects key assumptions of Vygotsky's Cultural-historical Theory (CHT) (e.g., 1987) or Cultural-historical Activity Theory (CHAT) (e.g., Engeström, 2015), though not exclusively. Prototype 2 relates to mixed entities comprised of artefacts and the knowledge of the person using them. The term "tool" is used for Prototype 2 but is juxtaposed with the term "artefact" to highlight their different semantic cores. Prototype 2 reflects the concept of instrumental genesis by Verillon and Rabardel (1995). Finally, Prototype 3 denotes an entity that can serve as a source from which a person can draw something to achieve a goal. The only term used for Prototype 3 is "resource." This prototype is associated with drawing

knowledge and is linked to Adler's (2000) perspective. Each prototype was interpreted as part of a research programme's hard core: Prototype 1 was associated with two research programmes, each embodying in their hard core either CHT or CHAT; Prototype 2 was linked with a programme focusing on the relationship between artefact and user knowledge, while Prototype 3 was affiliated with a programme focused on resource use.

Conclusions/Discussion

The diminishing focus on physical tools in educational research and practice is a contemporary trend. On the one hand, it shows that early concerns regarding digital tools in education, particularly in mathematics (e.g., Szendrei, 1996), have faded, and the community has now embraced the potential of digital tools. On the other hand, it underscores the need to further examine and develop our understanding of the role and function of both physical and digital tools in education, especially in light of recent advancements such as artificial intelligence (e.g., Floridi, 2023).

Changes in the semantic profile and use of terms associated with the identified prototypes suggest that mathematics education research and practice in Greece—as captured in this corpus—comprise four main, competing research programmes. In Lakatos' terms, the programme associated with Vygotsky's theory could be seen as "degenerating." However, this is not due to conflicting empirical data or its inability to generate new insights. This trend likely reflects issues related to: (a) the translation and interpretation of Vygotsky's original works (e.g., Veresov, 2020), (b) the adoption of "traveling theories" (Dafermos et al., 2020), and (c) the influence of the French didactic tradition, as represented by the research programme linked with Prototype 2.

Keywords: Tool, Artefact, Instrument, Resource, Research Programmes.

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Investigating voluntary and involuntary presenteeism of Greek Primary School teachers and its relationship with organizational commitment, overcommitment and Fulfilled Life Affective Experience

Efstathios Xafakos & Vasileios Stavropoulos

Introduction

In recent years, it has been argued that solutions for the effective inclusion of all learners must be sought at individual, team, and organizational levels. Contemporary literature suggests that organized systems of administrative support are necessary to ensure equity of access and participation in general education schools for students with special educational needs and beyond. This study focuses on and applies Kinsella's (2020) theoretical model of inclusive schools, which posits that the goal of inclusive schools is, among other things, to become learning organizations. Based on this assumption, the study aims to contribute to the scientific dialogue for building sustainable inclusive schools with characteristics of a learning organization, through the views and perceptions of Greek teachers.

Theoretical Background

A successful education system must provide equitable and inclusive services that can lead to positive outcomes. Such a system supports the participation, learning, and success of all students by enhancing schools' capacity to cope with change (Ainscow, 2020; Fullan, 2002, cited in Kefallinou, Symeonidou & Meijer, 2020). This, of course, requires a fundamental shift in attitudes and values to meet the needs of all students (Ainscow, Dyson, Goldrick, & West, 2012, cited in Kefallinou, Symeonidou & Meijer, 2020).

In recent years, the concept of the Learning Organization (Senge, 1990; Senge et al., 2000) has been proposed as a foundation on which the inclusive school can be based (Kinsella, 2020). Key features of this concept include the development of a shared vision, support for professional learning for all staff, team learning, a culture of inquiry and innovation, knowledge-sharing systems, learning from the external environment, and learning-oriented leadership (Kools & Stoll, 2016). For inclusive schools, based on elements from the learning organization concept, Kinsella (2020) recently proposed a theoretical model.

Method

This research explores how an inclusive school could function in the Greek educational system based on the concept of a learning organization, identifying potential characteristics, factors, and conditions that could foster its development, based on the perspectives of general and special education teachers. To collect qualitative data, structured interviews were conducted. Twenty-two general and special education teachers

were selected using purposive sampling based on positive attitudes toward inclusion and relevant training seminar attendance. Primary school teachers were specifically asked how Learning Organization characteristics might be translated into practical structures in a modern inclusive school.

Results/Outcomes

The primary findings for developing an inclusive school oriented around the learning organization concept emphasize the need for adequate resources (personal, team, and organizational). Teachers highlight systematic collaboration between educators, institutions, and experts as essential. Specifically, they suggest that teams design targeted interventions and propose collaborative professional development for teachers, as well as partnerships with other schools and organizations. Developing a shared vision, they argue, emerges from group actions focused on a common goal. A culture of exploration and experimentation can be fostered through innovative actions initiated by school staff. They add continuous training, team learning, evaluation, and openness as core elements. In summary, teachers recommend characteristics reflecting a learning organization but do not emphasize systems for knowledge sharing and innovation.

Conclusions/Discussion

The main finding of this study is that organizing special education interventions and developing effective inclusive practices in schools is critical for creating fully inclusive learning environments. This area warrants further exploration at multiple levels within organizations.

To date, various processes promoting effective inclusive schools have been identified. Consequently, schools can organize their practices by adopting insights from educational administration, especially those related to learning organizations. This research suggests a pathway for developing inclusive schools that are continually evolving, with the ultimate goal of better supporting all students.

Keywords: Inclusive learning school, Greek primary school teachers.

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Designing the Inclusive School that functions as a learning organization: Greek primary school teachers' views and perceptions

Efstathios Xafakos & Konstantinos Malafantis

Introduction

Presenteeism – the worker's physical presence at work, even though they may feel unwell or be ill – has gained attention from researchers in recent years. Presenteeism, as well as absence from work, are concepts that have not been adequately explored in the educational context, although research on them exists in other work contexts. This research seeks to document the incidence of presenteeism among teachers, both permanent and substitute, and its possible links to individual and organizational variables, such as organizational commitment, overcommitment, and self-fulfillment, which are also identified in the international literature. This research is based on the work of Van Waeyenberg (2023), which developed a new measurement scale for voluntary and involuntary presenteeism in a non-educational work context.

Theoretical Background

Some factors that predict presenteeism include high job demands, job insecurity, and strict leave policies. Current literature identifies two types of presenteeism: a) voluntary presenteeism, defined as the willingness to be at work by personal choice and desire while unwell, and b) involuntary presenteeism, defined as the intention to be at work while unwell due to external pressures. Presenteeism often has negative consequences, as research shows it is associated with low productivity and decreased well-being. However, some studies indicate positive outcomes, suggesting that presenteeism can strengthen social-professional relationships, foster cooperation among colleagues, and contribute to employees' self-actualization (Miraglia & Johns, 2016). To address these contradictory findings, this study explores the motivations underlying presenteeism (Deci & Ryan, 2000).

Method

This study first investigates the frequency of presenteeism among Greek primary school teachers (sample: 227 schoolteachers). Additionally, organizational commitment, overcommitment, and self-fulfillment are examined. For this study, the following scales are used: a) presenteeism (frequency, 2 items) (Aronsson et al., 2000; Aronsson & Gustafsson, 2005), b) voluntary and involuntary presenteeism (8 items) (Van Waeyenberg, 2023), c) organizational commitment (6 items) (Meyer et al., 1993, 2002), d) overcommitment (6 items) (Siegrist et al., 2009), and e) Fulfilled Life Affective Experience (Baumann & Ruch, 2022).

Results/Outcomes

Schoolteachers show moderate rates of voluntary and involuntary presenteeism (30% voluntary attendance and 50% involuntary attendance), with substitute teachers exhibiting significantly higher presenteeism rates. Teachers also express positive views on organizational commitment and self-fulfillment. Half of the teachers report overcommitment to their work.

Additionally, moderate positive and negative correlations were found between voluntary and involuntary presenteeism and organizational commitment, overcommitment, and emotional self-fulfillment. Specifically, path analysis revealed the following: emotional self-fulfillment weakens overcommitment; voluntary presenteeism strengthens involuntary presenteeism; overcommitment strengthens voluntary presenteeism; emotional self-fulfillment weakens involuntary presenteeism; emotional self-fulfillment strengthens organizational commitment; and organizational commitment strengthens overcommitment.

Conclusions/Discussion

In conclusion, from an organisational point of view, teachers' sense of self-fulfillment needs to be strengthened through their active involvement in actions and initiatives that contribute to the empowerment of their roles and their consequent commitment to the school they serve and to teaching in general, practices aiming at the quality retention to their profession, in the long run.

This piece of research serves as a valuable resource for school organisations – and beyond - to assess the effectiveness of their policies in handling the challenges associated with sickness and absence in the workplace, and allows them to take into account factors that are linked to teacher well-being.

Keywords: Voluntary and Involuntary Presenteeism, Organizational Commitment, Overcommitment, Fulfilled Life Affective Experience, Greek Primary School Teachers.

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Sub Theme 7

Future Perspectives on teaching and learning

The Philosophy of Didactics as a background for the documentation of teaching practice

Filippos Evangelou & Ioannis Fykaris

Introduction

The present paper introduces the term "Philosophy of Didactics" (PhDi) in the relevant scientific discussion and bibliographical terminology, as a basis for the management of teachers' "didactic thinking" about their teaching practice. The paper does not focus on the epistemologically controlled, "philosophy for children or with children" or other related references. Instead, it approaches "PhDi" as a necessity for the methodical understanding of teachers' perspectives on how teaching is conceived and implemented. To support this perspective, a key issue is how the concept of "PhDi" is understood by contemporary teachers in various teaching situations. To this end, an organized exploratory approach is needed to begin integrating research data into the relevant literature on Didactics. This is because the need arises to formulate a new epistemological paradigm, that being "PhDi." In this general context, this paper defines "PhDi" as the dynamic process of encouraging teachers to explore the causes behind the structuring and functionality of the complex phenomenon of teaching. In order to address these ideas, the research in this paper investigates the attitudes and views of Greek Primary and Secondary Education teachers regarding the potential contribution of "PhDi" to redefining the teaching role of the teacher, both "on" and "about" teaching practice.

Theoretical Background

In exploring the term "PhDi," a literature review was conducted on similar terms and definitions associated with the concept of "PhDi" using several databases, such as Scopus, ERIC, Science Direct, and Google Scholar. From this review, the related term "philosophy of teaching" was identified (Alvarez, 2019; Bowne, 2017; Beatty et al., 2009; Laundon et al., 2020; Mnguni et al., 2020). Additionally, research referring to "philosophy of teaching" was found, but primarily for university teachers (Laundon et al., 2020; Taff, 2023). For example, Alvarez's (2019) research examines teachers' philosophical views on the ability to anticipate important parameters affecting teaching effectiveness. However, there appears to be little research focusing on "philosophy of teaching" for primary and secondary school teachers (Caukin & Brinthaupt, 2017; Thomas, 2018).

"PhDi" includes considerations regarding teachers' values and beliefs, and an analysis of the teaching process, including how students and teachers interact (Chazan, 2022; Laundon et al., 2020; Owens et al., 2014; Taff, 2023).

"PhDi" encourages teachers to reflect on their teaching decisions, increasing their awareness of how they support students and prompting improvement in areas where they may not be fully utilizing their capabilities (Hollins, 2011; Loya, 2021).

Method

A structured questionnaire with seventeen "closed-type" five-point Likert questions was used as a research tool to collect data. Before initiating the main study, the questionnaire was distributed to 30 teachers for a pilot test to ensure the content was appropriate and the questions were clearly worded.

The research population included Greek Primary Education teachers and Secondary Education philologists. The research sample was selected by cluster random sampling from the list of Greek Primary and Secondary schools (Creswell, 2014). The final sample comprised 610 teachers, of whom 320 were Primary Education teachers and 290 were Secondary Education philologists. The research was conducted in March 2024, with a key limitation being the sample size—less than 10% of the total study population—which affects the generalizability of the findings.

The main research question focused on the extent to which teachers believe "PhDi" can influence their thinking about teaching within the various parameters related to teaching practice.

Results/Outcomes

Statistical analysis and interpretation of the data were conducted using SPSS 29. The reliability of the questionnaire was tested using Cronbach's Alpha, yielding a value of 0.946>0.7 across all seventeen variables. The following four question-variables are analyzed in this study:

- Question (1): "To what extent does "PhDi" prompt reflection on the fundamental structures of teaching?"

Responses: Out of 610 teachers, 1 (0.2%) responded "Not at all," 19 (3.1%) answered "Slightly," 85 (13.9%) chose "Moderately," 370 (60.7%) selected "Very," and 135 (22.1%) indicated "Extremely."

- Question (2): "To what extent does "PhDi" contribute to teachers making informed decisions in planning instruction?"

Responses: Out of 610 teachers, 4 (0.7%) responded "Not at all," 17 (2.8%) chose "Slightly," 113 (18.5%) answered "Moderately," 360 (59%) selected "Very," and 116 (19%) indicated "Extremely."

- Question (3): "To what extent does "PhDi" support teachers in making optimal instructional decisions responsive to individual student needs?"

Responses: Out of 610 teachers, 4 (0.7%) responded "Not at all," 29 (4.8%) answered "Slightly," 134 (22%) chose "Moderately," 337 (55.2%) selected "Very," and 106 (17.4%) indicated "Extremely."

- Question (4): "To what extent does "PhDi" encourage teachers to reflect on their teaching?"

Responses: Out of 610 teachers, 1 (0.2%) responded "Not at all," 15 (2.5%) answered "Slightly," 82 (13.4%) chose "Moderately," 325 (53.3%) selected "Very," and 187 (30.7%) indicated "Extremely."

Conclusions/Discussion

From the analysis of teachers' responses and the research question, it emerges that a high percentage of teachers hold positive views on the potential of "PhDi" to contribute to redefining the teaching role, with "Very" and "Extremely" responses comprising about 80% of the responses in the four key questions. Specifically, the positive responses in questions (1) and (2) align with related research (Loya, 2021) indicating that a "philosophy of teaching" enhances teachers' reflection on their practices.

Similarly, the favorable responses to questions (3) and (4) are consistent with research that suggests the "philosophy of teaching" fosters a deeper understanding of the teaching process (Laundon et al., 2020; Taff, 2023).

In this context, "PhDi" is viewed as a reflective and systematic process in which teachers consider foundational principles, theoretical assumptions, and scientific insights in teaching and learning prior to designing, implementing, and evaluating instruction (Biesta, 2017; 2015; Chazan, 2022).

"PhDi" connects with teachers' general philosophy about teaching and learning by combining teaching theory with practical application (Taff, 2023). This approach enhances the teacher's internal motivation and thought process about teaching and learning. This methodology minimizes the risks of unverified "person-centered" theories in teaching and learning, as it is grounded in scientifically validated pedagogical theory and informed decision-making in instructional design. This allows teachers to effectively address "teaching dilemmas" encountered in the teaching process (Beatty et al., 2009; Bowne, 2018).

With "PhDi," a new epistemological paradigm emerges that can redefine the teacher's role by fostering a deeper understanding of the multifaceted nature of teaching and enabling optimal decisions for enhancing teaching effectiveness.

Keywords: Didactics, Philosophy, Teaching, Views, Greek teachers

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Teacher education in times of teacher shortage: challenges, strategies and possibilities

Maria Assunção Flores

Introduction

Although the phenomenon of teacher shortage is not new, it has been greatly exacerbated in the aftermath of the COVID-19 pandemic in various parts of the world. Recent reports highlight the international dimension of the crisis. For instance, the UNESCO (2024) report indicates that 44 million additional primary and secondary teachers are needed to meet Sustainable Development Goal (SDG) 4 — the attainment of quality education for all by 2030. It also underscores how, as a complex global issue, teacher shortages affect both developed and developing countries and are influenced by several factors, such as motivation, recruitment, retention, training, working conditions, and social status. Darling-Hammond, DiNapoli, and Kini (2023), drawing on data from the U.S. Department of Education, stress that all 50 states reported shortages in more than one area for the 2022/2023 school year. Likewise, in Europe, the vast majority of education systems struggle with teacher shortages. According to the European Commission/EACEA/Eurydice (2021), a "vocational crisis" is affecting the teaching profession, which is visible in the difficulty of "attracting young people and losing others trained to become teachers." The same report emphasizes that teacher shortages impact 35 education systems across Europe, particularly in subjects such as science, technology, engineering, mathematics, and foreign languages. Portugal is no exception; it faces the increasingly complex problem of teacher shortage, mainly due to the mass retirement of teachers and a decline in the number of teaching candidates over the last 15 years (see Flores 2023, Flores and Craig 2023).

Theoretical Background

As a global and local problem, teacher shortage is dependent on the policies and politics of teacher recruitment, selection, and education (Flores and Craig 2023). See and Gorard (2020), writing in the context of England, state that teacher shortages are partly created by government policies themselves—including flaws in the selection and school funding systems, the official extension of the education and training leaving age, and increases in the number of small schools. They discuss the role of uncoordinated policies in tackling teacher shortages. In the USA, the national teacher shortage crisis implies the need for an in-depth understanding of its nature and dynamics, considering the "localized manifestation" of the problem (McHenry-Sorber and Campbell 2019). As Darling-Hammond and Podolsky (2019, p. 8) argue, "addressing teacher shortages is about more than funneling warm bodies into classrooms. Instead, teachers must be recruited, trained, and supported to teach successfully in the specific subject areas, schools, and communities that experience shortages." Thus, discussing the problem of teacher

shortage and its implications for teacher education involves a systemic approach that looks not only at issues of quantity but also of quality (see Flores 2023; Flores and Craig 2023; Goodwin et al. 2023). As Goodwin et al. (2023) argue, issues such as expanding teacher education programs, streamlining certification processes, offering financial incentives, and encouraging individuals to enter the teaching profession must be considered alongside the importance of having competent teachers who are well-prepared and dedicated.

Method

This paper draws on data obtained from research conducted in Portugal regarding the situation of the teaching profession, particularly teacher shortage (Nunes et al. 2021; CNE 2022), while also referencing data from international reports (OECD 2019). An in-depth examination of the themes arising from these studies was then carried out. For this, we used official data available from the General Directorate of Statistics of Education and Science, namely the most recent profile of the teaching workforce in Portugal with reference to the school year 2021/2022 (DGEEC 2023). We also draw on the Portal "Education in Figures" (DGEEC 2024) and the Pordata database, which compiles information from a wide range of official and certified sources (Fundação Francisco Manuel dos Santos n.d.).

Results/Outcomes

There are not enough teaching candidates pursuing a master's degree in teaching to meet recruitment needs, according to the official statistics published in Portugal in 2021. The situation is critically serious when we consider the number of pupils without teachers in at least one subject. Teacher shortages are not a new problem but a persistent one that appears to have worsened in recent years (Sutcher, Darling-Hammond, and Carver-Thomas 2016). Strategies to mitigate the problem include, among others, hiring teachers without a teaching degree and making changes to initial teacher education. However, such changes to initial teacher education are often the result of external pressures. For instance, the Bologna process instigated the need to change all teacher education programs to meet its formal requirements. Now, initial teacher education needs to be reformed due to the context of teacher shortages. Such a move draws once more on a "deficit discourse," whereby teacher education is seen as a "problem to be solved" (Mayer, Goodwin, and Mockler 2021, p. 211). The envisaged change entails several drawbacks regarding the rationale underpinning it: a reduction in foundational courses, the notion that teaching experience alone is sufficient, and the idea that mastering the content to be taught and how to teach it is enough. The implications of such initiatives to mitigate teacher shortages are clear in terms of undermining the status of the teaching profession and ignoring the multidimensional and multifaceted nature of the professional knowledge required to become a teacher.

Conclusions/Discussion

Although the professional qualification for entering the teaching profession in Portugal is at the master's level, at least for the time being, the figures regarding teacher recruitment needs may lead to initiatives being guided by questions of quantity rather than quality. The situation described in Portugal mirrors the reality of other countries in Europe and elsewhere (this volume). For instance, Darling-Hammond, DiNapoli, and Kini (2023) discuss the problem of teacher shortages in the USA and argue for the need to develop a "Marshall Plan for teaching." There is a need for a comprehensive focus when discussing the problem of teacher shortages and its implications for teacher education. This means analyzing not only the policies oriented toward the teaching profession but also the rationale, purpose, and outcomes of teacher education. If the issue of quantity needs to be addressed in both the short and long term, the quality dimension should not be ignored in order to strengthen the profession, which requires investment in quality teacher education.

Keywords: teachers, teacher education, teacher shortage, teaching.

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Imagining possible futures for educational research and practice: Shifting the focus from ME to WE

Tara Ratnam & Cheryl J. Craig

Introduction

Imagining new possibilities for educational change involves asking new questions about the persistent challenges facing educational practice to shed light on them. One such challenge is helping teachers and faculty overcome what seems like their recalcitrance to engage with rapidly evolving educational research within shifting social and technological landscapes. In this presentation, we provide a new perspective to understand teacher and faculty resistance to change using the concept of "excessive teacher/faculty entitlement." Excessive teacher/faculty entitlement is the tendency among teachers and faculty to adopt a self-centered view of the world and use their professional authority to command and control, even against the positive values they hold. This entitlement gives rise to a range of negative consequences, including a lack of self-awareness, adherence to inherited scripts, deafness to other viewpoints (including those of students), externalizing blame, professional jealousy, competitiveness, and aggression, all of which hamper relationships in the workplace and the health of the institution. Initial studies (Ratnan & Craig, 2021) have established that "excessive entitled behavior" is a pervasive and malignant issue in schools and universities internationally. However, these findings are not used here to criticize teachers, but to gain an empathetic understanding of them and the complexity of their work by exposing the systemic issues (e.g., neoliberal influences on education and other cultural-historical ills—power, domination, racism, colonialism, etc.) and the social relationships (e.g., a self-centered worldview) that mediate the production of this toxicity. More importantly, this understanding is used to move forward toward a humane, collaborative relationship by promoting the transformative agency of the actors involved. Agency represents the positive counterpart of excessive entitlement, speaking to teachers' and faculty's "best-loved self" (Craig, 2020).

Theoretical Background

The presentation is framed by an enriched combination of two theoretical orientations from the diverse contexts in which we, the two authors, have engaged in a common interest in understanding teacher and faculty change. Craig has studied extensively how pre-service and in-service teachers' "personal practical knowledge" (Clandinin, 1985) evolves within their knowledge communities (Craig. 1995) and how it influences their knowledge, actions, and identities in context. Ratnam has worked closely with teachers, using the cultural-historical lens afforded by Vygotsky (1978, 1987) and Bakhtin (1981, 1984). Her work demonstrated that teachers' thinking and actions originate from a space that is neither completely personal nor entirely social, but at the intersection of both. This finding led to the realization that teachers and faculty are not solely responsible for their resistance. It

pointed to the need to shift the focus from teachers themselves to the phenomenon of excessive teacher/faculty entitlement to understand how it mediates teacher and faculty recalcitrance. Craig's work on Schwab's concept of the "best-loved self"—which relates to the ideal teacher identity that they aspire to achieve (Craig, 2020; Schwab, 1954/1978)— helped us use it as a complementary yet contrasting aspect of excessive entitlement, evoking their yin and yang dynamics (Ratnam, 2021), which are always shifting and never fixed.

Method

The two authors present a case of excessive entitlement from two diverse contexts: India and the U.S. Drawing on insights from Narrative Inquiry and Self-Study, Ratnam. T., uses narratives from her curricular experience to unearth the "causal dynamic basis" (Vygotsky, 1978) of the living contradiction she experienced in her teaching, between her intention to help all students learn and her actions, which seemed to alienate the students. The self-study inquiry engaged her in questioning who she was as a teacher, the contexts in which she developed her understanding of teaching, and the consequences of these dominant influences on her thinking and practice. She uses an illustrative example from her teaching to demonstrate the change in her practice as a result of the insights gained from the self-study.

The narrative inquiry research method employed by Craig conveys "an experience of an experience" (Clandinin & Connelly, 2000). It is "both a view of experience and a way of inquiring into experience;" it "lets experience lead the way" (Pinnegar & Craig, 2023, p. 8). Craig's narrative account intertwines temporality, sociality, and place (Dewey, 1938) to create lifelike "amalgams of experience" (Craig, 2023). It extensively uses fictionalization, along with the interpretative tools of broadening, burrowing, and storying-restorying. This two-pronged approach shifts the focus from 'me' perspectives to 'we' perspectives through a consideration of the stories lived in context. The intersection between longing (best-loved self) and greed (excessive entitlement) is unpacked.

Results/Outcomes

Ratnam's self-study made her aware of how the 'settled perspectives' she was socialized into during her schooling and university years, along with the consequent excessive entitlement that had subtly crept in, led her to assume the position of 'the knower' in her relationships with students. This attitude limited her appreciation of students' diverse ways of knowing and the cultures and languages that were meaningful to them, ultimately turning them away from her. These insights motivated a change in the author to humanize relationships. She illustrates this shift in focus from being ME-centered to becoming WE-centered, inclusive of all the students she taught.

Craig's narrative inquiry highlighted how convoluted the selection and acknowledgment of student and faculty awards can be. Regarding the student award, five faculty members

representing the department's program areas were charged with the task. Narrative baggage from the milieu took the decision-making process in an unexpected direction. As for the faculty award acknowledgment, it was spearheaded by a university leader who did not enact what was communicated to the professor. While we cannot say with certainty what triggered the leader's change of plan, we can assert that narrative freight (Craig, 2004) from the context played a significant role.

Conclusions/Discussion

This paper, arising from different theoretical orientations and research methodologies, foregrounds the complexities of communications and what is known and unknown about the contexts in which they unfold. Each person brings their own continuously shaped knowledge, influenced by contextual factors, to every situation. Still, sense-making is ultimately bounded by one's sense of self and narrative history—as Ratnam showed in her unpacking of her "settled perspective" through deep introspection and self-study. Craig's example takes the simple task of choosing the recipient of a student award and acknowledges how a major faculty award will be recognized, digging deeply into these processes and accounting for overlooked and unnamed narrative freight. Together, the authors illustrate the complexities underlying the clash between excessive entitlement (societal positioning, favored choices)—the belief that some are better than others (i.e., positioning, popularity, financial merit)—and longing—the desire to be one's best-loved self regardless of circumstances.

Shifting from a ME perspective to a WE perspective advances this inquiry—despite the barriers posed by unacknowledged narrative baggage. Recognizing that each person and each group has an important role in naming previously denied narrative freight is paramount. Striking a balance between authority and empathy is necessary to move the field of education more fruitfully toward the future.

Keywords: Excessive teacher/faculty entitlement, ME perspective, WE perspective

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Commoning Practices and Self-education: Comparing Teacher Training in Two Freinet Networks

Stelios Pantazidis & Sophia Moisiadou

Introduction

A decade ago in Greece, the inaugural effort to establish a community based on the pedagogical principles of the French educator Célestin Freinet began. This initiative led to the formation of the Pedagogical Group "To Skasiarheio" and its associated networks across the country. These communities, despite manifesting resistance, do not necessarily function as antagonists to the prevailing educational discourse of standardized curricula and public education. Instead, they act as internal catalysts for gradual transformation. They envision the potential for an alternative education system and a different societal framework by promoting non-conventional narratives that emphasize collaboration, community, and self-organization.

An intriguing aspect is that these grassroots narratives have the capacity to influence dominant policy frameworks. However, to date, no empirical research has been conducted concerning the members of the Freinet networks in Greece. This study aims to perform a comparative analysis of the experiences of members within two distinct networks: the Members of Freinet's Network (MFN) in the newly established Freinet Network of Thessaloniki (founded in 2023) and the more experienced Network of Chania, Crete (founded in 2019). The objectives are twofold: firstly, to investigate the experiences, needs, and motivations of the members of both networks; and secondly, to compare these aspects with a focus on the impact that the accumulation of experience has on their operation.

Theoretical Background

Teacher education has increasingly been characterized by quality assurance systems focused on teaching capability (Hustler & McIntyre, 2024), performance, and effectiveness (Darling-Hammond, 2020). This technocratic approach has influenced Greece's educational landscape. Educators can be categorized into three groups. Firstly, there is a trend of credential accumulation driven by the need to secure employment and prepare for evaluations in public schools, often leading to certifications that lack substantive development (Pavlidis, 2022). Secondly, some educators seek pre-packaged tools and practices to ease their teaching responsibilities, an approach that does not foster critical and creative thinking or experimentation. Finally, some educators gravitate toward specific educational models or groups to express themselves and share knowledge for personal growth.

In response to these challenges, many educators have embraced active and collaborative learning models, co-creating a different kind of educational experience. The operational

dynamics of these networks can be considered a form of "commoning," involving collaboration and sharing to meet everyday needs and achieve well-being for individuals and communities (Pechtelidis et al., 2023). Beyond traditional teachers' unions, few associations focus on self-development and collective action. The Freinet Networks address this gap, offering a space for meaningful and experiential teacher education.

The networks in this study, like all Freinet Networks, autonomously determine their activities and objectives, guided by the ideological principles of Freinet. They operate horizontally and are self-organized, conducting self-training sessions and open assemblies. These networks provide space for equitable communication among educators, with sharing experiences and ideas serving as motivation for participation.

Method

In the present study, the investigation of teachers' beliefs was conducted through interpretative phenomenological analysis (IPA). This type of research is a reliable pathway to new knowledge and is widely used in both psychological and educational research. In brief, "knowledge" is an agreement among experts, whereas "belief" is a product of an individual's perspective (Urbach, 2015). Based on the principle of intersubjectivity, the Members of Freinet's Network (MFN) construct their social reality through their actions. It was assumed that the beliefs of the MFN could provide significant insights into their personal and professional development within such a group. Therefore, IPA was utilized as an epistemological framework, particularly as a way of viewing reality rather than merely a research tool for analysis (Smith, 2009). Interviews and focus groups were conducted with MFN members from the two Freinet Networks, which were recorded, transcribed, and analyzed using thematic analysis (Braun & Clarke, 2006). The interviews and focus groups were conducted digitally to enhance accessibility and facilitate participation for all involved. The sample consisted of teachers from all levels of education and various specialties from the city of Thessaloniki (and surrounding areas) and Chania. A key criterion for selecting the sample was regular and active membership in the networks. The age range of participants is from 18 to 60 years old.

Results/Outcomes

The concept of commoning and the sense of community are prominently articulated by participants in both networks. Participants expressed a strong need to share their emotions, experiences, and ideas with colleagues, as well as to gain insights from professionals in other educational specialties. The establishment of the group filled a void in the area, as no other groups, apart from teachers' unions, provided such opportunities. Participation serves both educational and personal purposes for the MFNs, allowing engagement with new ideas, teaching methods, and mutual support.

Teachers reported learning new practices, experimenting with them in their classrooms, and returning to reflect on these experiences. This process helps them develop skills and explore new perspectives to create a new educational reality. The Chania MFNs are more

familiar with Freinet Pedagogy concepts, whereas the Thessaloniki MFNs had fewer references to such concepts.

Members assume responsibilities and engage in organizing workshops and activities, which motivates and energizes them. This commitment drives them to invest personal time in these meetings, typically held on Saturdays. However, a recurring issue is that some individuals avoid responsibilities, while a few consistently undertake these roles. Both networks strive to distribute responsibilities equitably among members.

The motivations, needs, and experiences driving participation in both networks were found to be consistent. Experienced members from Chania expressed heightened confidence in the benefits of participation, with their group's community connections providing rich ideas and experiences. Meanwhile, Thessaloniki members conveyed optimism about future activities and expressed joy and satisfaction that the initiative has started in their city.

Conclusions/Discussion

The findings resonate with existing literature on teacher training, teacher networks, Freinet Pedagogy, and educational commons, emphasizing the critical role of community, experiential learning, and shared responsibilities. The sense of community noted among participants aligns with the work of Vangrieken et al. (2015), who highlight the importance of collaborative cultures in professional development. Such environments are essential for fostering innovation and addressing the isolation often experienced by educators (Lave & Wenger, 1991).

The experiential learning component, a cornerstone of Freinet Pedagogy, is validated by this study. Teachers' engagement in reflective practice is consistent with Freinet's emphasis on learning through experience (Freinet, 1993). This approach enhances pedagogical skills and supports professional growth, as noted by Borko (2004), who illuminates the effectiveness of active learning in teacher education.

Incorporating educational commons, especially the term "commoning," into the analysis of Freinet Networks further enriches our understanding of how collaborative and shared spaces contribute to sustainable educational practices. By fostering an environment where resources are collectively managed, the networks not only enhance professional development but also contribute to the creation of a more supportive educational ecosystem.

The issue of uneven responsibility distribution within networks echoes challenges identified in professional learning communities. Prenger and his colleagues (2021) discuss the need for shared leadership to prevent burnout and ensure sustainable participation. The efforts of the Freinet Networks to address this issue underscore the importance of equitable responsibility sharing in maintaining active communities, reinforcing findings by Kaldi and her team (2022) on the dynamics of teacher collaboration and professional development.

Keywords: Teacher training, teacher networks, Freinet Pedagogy

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Sub Theme 8

Promoting Inclusive Practices in Education

A Preliminary Examination of Teachers' and Parents' Perspective on Sexually Inclusive Primary Education: The Role of Homophobic Prejudice and Moral Disengagement

Thanos Touloupis & Dimitrios Pnevmatikos

Introduction

The present study comparatively examined teachers' and parents' perspectives on sexually inclusive primary education, investigating the predictive role of homophobic prejudice and moral disengagement within each subgroup. The diversity of the student population concerns not only their multicultural backgrounds but also their sexual orientations (Klocke, 2024). Therefore, sexually inclusive education should be a priority for school stakeholders. This type of education includes a range of strategies that help students become aware of stereotypes and learn in a more accepting environment that acknowledges various identities and different experiences among all students (O'Farrell et al., 2021; Woolweaver et al., 2023). In this context, the identities of students with non-heterosexual orientations are affirmed, allowing them the space to explore their identities, while heterosexual students gain the knowledge needed to respectfully interact with and advocate for their peers with diverse sexual orientations (O'Farrell et al., 2021; Woolweaver et al., 2023). In this way, a sexually inclusive school environment contributes to students' healthy interpersonal relationships and well-being, especially for those belonging to sexual minority groups, such as gays, lesbians, or bisexuals (Gegenfurtner & Gebhardt, 2017; Mark et al., 2021; Mayo, 2022). Sexually inclusive strategies can be promoted not only by teachers but also by parents, whose inclusive behaviors cultivate a more tolerant attitude towards issues of diversity in general among their children (Katz-Wise et al., 2022).

Theoretical Background

Based on the Theory of Planned Behavior (Ajzen, 2001), individuals' intentions to engage in sexually inclusive behaviors are predicted by their perceptions and attitudes regarding this issue. Consequently, investigating the perceptions of in-service teachers and parents, as primary school stakeholders, may reveal their readiness to adopt relevant school practices, highlighting the necessity of launching prevention and awareness initiatives regarding students' sexual diversity. Moreover, since primary education is an optimal time to introduce such initiatives (Sprague & Walker, 2021), it is crucial to explore the attitudes of primary school teachers and parents of primary school students toward sexually inclusive education. Although numerous studies have explored teachers' and parents' views on sex education generally (Ramiro et al., 2008; Shin et al., 2019; Zhuravleva & Helmer, 2024), there is a scarcity of research explicitly addressing their perceptions of

sexually inclusive primary education. When analyzing the views of school community stakeholders on this issue, it is essential to identify possible contributors to these perspectives. Homophobic prejudice, defined as prejudicial attitudes toward individuals with diverse sexualities (Herek, 2000), and moral disengagement, referring to the deactivation of moral control and the justification of one's transgressions to preserve self-esteem and avoid punishment (Camodeca et al., 2019), could be expected to be associated with a less inclusive perspective on sexually inclusive education. Nevertheless, there are no evidence-based findings regarding the contributing roles of teachers' and parents' homophobic prejudice and moral disengagement in their perspectives on sexually inclusive education.

Method

The total sample included 249 primary school teachers (78% female [N = 194]) from fifth and sixth grades at randomly selected Greek public schools (with a 29% response rate) and 268 parents (81% mothers [N = 217]) of children who attended these grades in the participating schools. Teachers from these grades were selected because the initial introduction to topics concerning the two sexes (a parameter partially relevant to the studied issue) occurs within the curriculum of the fifth and sixth grades (Pedagogical Institute, n.d.). Both teachers and parents completed an online self-reported questionnaire, which included demographic questions (e.g., gender, age) and scales related to their perspectives on sexually inclusive education (Attitudes Towards the Inclusion of Trans and Gender Diverse Students Measure; Goff, 2014), their homophobic prejudice (Attitudes Toward Lesbians and Gay Men Scale; Herek, 2000), and their moral disengagement (Moral Disengagement Scale; Caprara et al., 1995). Regarding the study's procedure, the principals of the randomly selected schools were emailed, asking them to forward the research approval and the link to the questionnaire to the teachers of the fifth and sixth grades, as well as to parents whose children attended these grades.

Results/Outcomes

 The findings indicated a significant difference in perspectives on sexually inclusive education between teachers and parents. Specifically, teachers demonstrated a less inclusive stance compared to parents. Notably, the school strategies that were supported in slightly higher percentages by parents included: (1) It is the responsibility of school staff to stop others from making negative comments based on gender identity or expression; (2) School districts should allow trans and gender-diverse students to participate in sports based on their gender identity, not assigned sex; and (3) Positive representations of trans and gender-diverse people should be included in the curriculum whenever possible. However, it is important to point out that, within the five-point scale used for responses, the overall attitudes of both teachers and parents toward this matter are below the midpoint average.

Regarding the preliminary correlations among the variables involved, it appeared that participants' perspectives on sexually inclusive primary education were negatively correlated with homophobic prejudice and moral disengagement, while homophobic prejudice and moral disengagement were positively correlated with each other. It should be noted that, in the case of teachers, most of the correlations were stronger than in the case of parents. Finally, concerning the predictive roles of homophobic prejudice and moral disengagement in participants' perspectives on sexually inclusive education, the following were found: For teachers, primarily their homophobic prejudice and secondarily their moral disengagement negatively predicted their perspectives on sexually inclusive education. For parents, it appeared that only moral disengagement served as a negative predictor of their corresponding perspectives.

Conclusions/Discussion

In general, the study revealed a relatively conservative perspective on sexually inclusive primary education among both teachers and parents, with teachers' perspectives being less inclusive than those of parents. Furthermore, the study highlighted differentiated negative contributors to teachers' and parents' perspectives on sexually inclusive primary education. The study contributes both theoretically and practically. In terms of theoretical contribution, the findings enrich the international literature by informing how two significantly under-investigated groups of school stakeholders perceive sexually inclusive primary education, as well as how individual psychological mechanisms contribute to this perspective. Simultaneously, the findings highlight the necessity of implementing or intensifying related prevention and awareness actions for the stakeholders of the primary school community. These actions could be tailored depending on whether they are aimed at teachers or parents. Furthermore, the findings imply that the proposed school actions could incorporate differentiated experiential activities for teachers and parents to combat homophobic prejudice and/or moral disengagement.

Keywords: primary school teachers, parents, sexually inclusive education, homophobic prejudice, moral disengagement

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A Preliminary Comparison of Intention to Quit Between Heterosexual and Homosexual Elementary School Teachers: Perceived School-related and Individual Contributors

Thanos Touloupis

Introduction

The present study aimed to investigate the intention to quit among heterosexual and homosexual elementary school teachers comparatively. Additionally, the roles of school-related factors (colleague support, school belonging) and individual contributors (teachers' resilience, meaning of work) in their intention to quit were co-examined through an explanatory mediation model for both teacher subgroups. Teachers' frequent exposure to multidimensional stressful circumstances in their work environment (e.g., students' disruptive behavior, communication and collaboration problems with colleagues and parents) justifies the systematic connection of the teaching profession to high rates of emotional exhaustion and burnout (Wang & Burić, 2023). Beyond these negative emotional outcomes, many studies have explored in-service teachers' intention to quit the profession (Leung & Lee, 2006; López et al., 2020; Merida-Lopez et al., 2022; Raju Pamu, 2010; Wang & Hall, 2021). The theoretical framework for investigating teachers' intention to quit derives from the Theory of Planned Behavior, which posits that intentions are the most proximal predictor of actual behavior (Ajzen, 1991). Therefore, investigating teachers' intention to quit could inform related psycho-educational prevention actions or interventions in schools. This is particularly important for teachers belonging to sexual minority groups (e.g., gays, lesbians, bisexuals), as they tend to perceive their school environments as somewhat conservative (Lee, 2019; Smith et al., 2008) and may be more prone to quitting their profession.

Theoretical Background

According to the international literature, most related studies have focused either on secondary school teachers (Raju Pamu, 2010) or on mixed samples that include teachers from preschool, elementary, and secondary education (Merida-Lopez et al., 2022; Wang & Hall, 2021). As a result, there are no clear findings regarding the intention to quit among the under-investigated group of elementary school teachers. Furthermore, considering that homosexual teachers often experience low self-worth and stressful emotions due to their difficulty in revealing their true sexual identity at school (Lee, 2019), it would be valuable to investigate their intention to quit. However, to date, no related studies have been identified. Additionally, no study has comparatively examined this intention between heterosexual and homosexual teachers, highlighting the potentially more vulnerable subgroup of teachers likely to leave their profession.

When discussing teachers' intention to quit, it is crucial to identify possible contributors. Bandura's (2002) Social Cognitive Theory (SCT) offers a multilevel explanation of teachers' intention to quit. According to the SCT, school context-related factors can interact with individual factors, contributing to intended behaviors (such as the intention to quit). Based on the international literature (Heleno et al., 2018; Lee et al., 2021; Merida-Lopez et al., 2022; Vekeman et al., 2017), the roles of colleague support and school belonging (as perceived school context-related factors), as well as resilience and the meaning of work (as individual factors), in teachers' intention to quit remain significantly under-investigated, especially for teachers from sexual minority groups.

Method

The total sample included 295 teachers (N = 151 heterosexual [43% women] and N = 144 homosexual [56% women]) from almost all Regional Education Directorates of Greece. Teachers completed an online self-report questionnaire that included demographic questions about their gender, age, and sexual orientation (heterosexual vs. homosexual), as well as scales related to the variables involved (intention to quit, colleague support, school belonging, resilience, work meaning). Regarding the study's procedure, upon approval from the Institute of Educational Policy of the Greek Ministry of Education, the link to the questionnaire was shared on various educational sites. The link included an informed consent form and subsequently the scales of the variables under study. The study was conducted through an electronic platform, where teachers' responses were recorded automatically. Completing the questionnaire took approximately 15 minutes. The same procedure was applied in the pilot phase of the study with fewer teachers (N = 24 heterosexual [49% women] and N = 19 homosexual [41% women]), who were not included in the total sample.

Results/Outcomes

The results showed a significant difference in the intention to quit their profession between the two teacher subgroups. Specifically, homosexual teachers expressed a greater intention to quit compared to heterosexual teachers. Regarding the other variables, significant differences were also found between the two teacher subgroups concerning perceived colleague support, school belonging, and teachers' resilience. Specifically, homosexual teachers felt less supported by colleagues, less a sense of belonging to their school, and less resilient about their profession compared to heterosexual teachers. The meaning of work did not differ between heterosexual and homosexual teachers.

Regarding preliminary correlations among the variables involved, the following were found: a positive correlation between colleague support and school belonging, a positive correlation between teachers' resilience and the meaning of work, and positive correlations between school context-related factors (colleague support, school belonging) and individual factors (teachers' resilience, meaning of work). There were also negative correlations between school context-related factors (colleague support, school belonging)

and teachers' intention to quit, as well as negative correlations between individual factors (teachers' resilience, meaning of work) and teachers' intention to quit.

Furthermore, regarding the path analysis results, it was found that for heterosexual teachers, school context-related factors (colleague support, school belonging) predicted teachers' intention to quit positively, but only indirectly through the full mediating role of individual factors (teachers' resilience, meaning of work). In contrast, for homosexual teachers, individual factors (teachers' resilience, meaning of work) served as partial mediators in the relationship between school context-related factors (colleague support, school belonging) and teachers' intention to quit.

Conclusions/Discussion

The present study concludes that homosexual teachers' intention to quit is above average and expressed to a greater extent compared to heterosexual teachers. Furthermore, in the relationship between school context-related factors (colleague support, school belonging) and teachers' intention to quit, teachers' resilience and meaning of work served as full mediators for heterosexual teachers and partial mediators for homosexual teachers.

The study contributes both theoretically and practically. First, it enhances the international literature by comparatively exploring the intention to quit the profession between heterosexual and homosexual teachers. Furthermore, by applying the framework of SCT, the study reveals differentiated mediation models that explain intention to quit for both teacher subgroups through the interaction of under-investigated school context-related and individual contributors.

Additionally, the findings imply the necessity to strengthen underlying psychological factors in the school context that are protective against teachers' intention to quit, especially for those who belong to sexual minority groups. Specifically, experiential prevention and awareness actions regarding practices for sexually inclusive education could be implemented for teaching personnel and school principals in elementary education. These actions could emphasize strengthening interpersonal relationships, acceptance, and resilience among school personnel. In this way, both school context-related and individual factors may be empowered, thereby reducing teachers' intention to quit in the future, particularly for those with diverse sexual orientations.

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Psychoeducational classroom interventions promoting inclusion of pupils with special educational needs in mainstream schools: A case study

Anna Gerakini & Diamanto Filippatou

Introduction

In recent years, inclusion has become a widespread trend in the field of education, referring to equal opportunities in education for all students, regardless of their differences and challenges (Mag et al., 2017). It is considered a universal human right, with the main aim of ensuring that all children can participate equally, confidently, and independently in everyday activities (Romero-Contrera et al., 2013).

Inclusion also involves a process of systemic reform that embodies changes and modifications in the school environment (e.g., curriculum, teaching methods, approaches, structures, and strategies) to overcome barriers by providing an environment that best meets pupils' needs and preferences. A prerequisite for inclusive education is the conceptualization of the school as a whole. Following the Salamanca Statement and Framework in 1994, the focus has shifted from students with disabilities and/or special educational needs to include anyone who may be excluded from or marginalized in education (Bottleneck Analysis for Inclusive Education in Greece, 2021). The concept of inclusive education and the whole school idea form the theoretical framework of the project "Bottleneck Analysis and Teacher Training for Inclusive Education," which aims to enhance inclusive practices for students with special educational needs or disabilities and for students from minority or marginalized groups in mainstream schools. The project falls within the scope of Phase III of the Preparatory Action for a Child Guarantee, an initiative of the European Commission (EC), in partnership with the UNICEF Regional Office for Europe and Central Asia (ECAR), which aims to ensure the progressive implementation of the rights of the most vulnerable children in Europe. One of these rights is access to inclusive, quality education.

Theoretical Background

Inclusive education is based on the "whole school" approach, which recognizes the social, emotional, and physical needs of children and young people, including well-being and mental health as key learning goals (Cefai et al., 2021). The "whole school" approach targets "ideal inclusion," where the school as a whole is expected to be a place where special and specific education services are provided. Additionally, the "whole school" approach considers an inclusive school as an ecosystem that promotes quality education for all, based on its collaborative nature involving all members of the school community and the practice of reflection, planning, action, and reviewing outcomes in a dynamic process that involves constant (re)defining of inclusive practices (MacMaster, 2013).

An important means of implementing inclusive education within the "whole school" approach is Differentiated Instruction (DI) (Morgan, 2014; Tomlinson, 2008). Differentiation means tailoring instruction to respond to the diverse needs of learners in the classroom to create the best possible learning experience. By using ongoing assessment and flexible grouping, teachers can differentiate at least four elements in the classroom based on student readiness, interest, or learning profile (Tomlinson, 2008). Differentiated Instruction strategies can be classified into four components: learning content, learning process, learning product, and learning environments (Santangelo & Tomlinson, 2012; Tomlinson, 2014; Tomlinson, 2000).

Method

The purpose of this research is to promote inclusive practices for students with special educational needs (SEN) or disabilities in mainstream schools through differentiated instruction, enhancing interaction and collaboration among all school members. The project "Bottleneck Analysis and Teacher Training for Inclusive Education" involved a total of 30 schools in Attica, focusing on both students with SEN/disabilities and students with refugee and immigrant backgrounds. A case study of the 3rd Junior High School of Glyfada is presented. The sample consists of 22 second-grade students, 7 of whom have a diagnosis of special educational needs from KEDASY.

The research methodology was based on a qualitative approach, focusing on data collection through direct observation, completion of observation scales, and interviews with teachers participating in the program. The program was conducted in three phases: in the first phase, the identification of school needs through classroom observation and discussions with participating teachers was conducted, along with the formation of the school team (i.e., class teachers, support teachers, school psychologist, school principal).

The second phase included the implementation of a psychoeducational program, which consisted of weekly visits to the school from December to April, direct observation of the class and the learning process, as well as teachers' training and counseling. Teaching practices applied, students' psychosocial reactions and behaviors, their difficulties during learning, and teachers' challenges in creating an inclusive classroom environment were recorded. The basic principles of differentiated instruction and techniques to support students with special educational needs were also analyzed. Additionally, teachers received training on students' psychoeducational assessment and on designing and implementing differentiated teaching activities. The third phase involved the final evaluation of the psychoeducational interventions through direct observation, completion of observation scales, and interviews with teachers to assess the effectiveness of the program.

Results/Outcomes

The results of the study indicated that differentiated instruction led to increased participation and improved academic performance among students with special

educational needs. This approach enhanced students' motivation to engage in classroom activities, increased their participation in lessons, and encouraged interaction, sharing of ideas, discussions, and critical thinking. Group activities improved students' social, communication, and cooperative skills, fostering a more collaborative and inclusive learning environment. Their sense of isolation was reduced as they felt like members of the class community through collaborative activities. Teachers developed new skills and strategies for managing diverse classrooms, enhancing their professional development and confidence.

Despite these positive impacts, challenges were identified, such as the need for continuous teacher training, limited time to implement differentiated teaching methods, and difficulties in adapting materials and activities to the various needs of students. Nevertheless, teachers recognized that differentiated instruction could be integrated into their teaching practices, as they could implement their lesson plans according to curriculum objectives and adopted a more positive view toward conducting group activities. DI enhanced collaboration among all members of the school team and began to create a "whole school" philosophy. Overall, the research demonstrated that differentiated instruction can significantly contribute to creating inclusive environments for all students, including those with special educational needs, provided that teachers are properly supported and trained.

Conclusions/Discussion

The study's findings underscore the significant benefits of differentiated instruction (DI) in promoting inclusion for students with special educational needs (SEN) in mainstream classrooms. The positive impact of DI on student motivation, engagement, and cooperative skills illustrates its potential to create a more inclusive and collaborative learning environment. Key conclusions include the necessity of continuous teacher training to sustain the effective implementation of DI.

Keywords: Inclusive Education, Whole school approach, Differentiated Instruction, Students with SEN

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Embracing Change: Fostering Education for a Sustainable Future through the Arts in Namibia

Christiana Deliewen Afrikaner

Introduction

The importance of embracing change and promoting education for a sustainable future through the arts is particularly significant in Namibia's unique socio-cultural context. Arts education has become a vital component of many nations' economies. Given the abundant talent in Namibia, the arts have the potential to make a substantial contribution to the country's ongoing sustainable development. In a fast-changing world, it is essential to recognize the vital role of arts education in shaping the nation's future. In Namibia, arts education nurtures creativity, promotes critical thinking, and fosters cultural appreciation among the younger generation. UNESCO has a comprehensive focus on Education for Sustainable Development (ESD), centering its efforts on five fundamental areas. These areas include advancing policy to create an environment conducive to sustainable development, transforming learning environments to incorporate sustainable practices, building the capacities of educators to effectively transmit knowledge about sustainability, empowering and mobilizing youth to become agents of change, and accelerating local-level action to drive sustainable development initiatives in communities. These principles promote a holistic understanding of sustainability and environmental conservation for students. Engaging in the arts across disciplines helps students explore their cultural heritage and develop essential competencies. This approach enriches the academic journey and fosters heightened awareness of environmental and societal challenges. Through the arts, we can empower students to participate actively in dialogues about sustainability, transforming them into proactive contributors essential to sculpting Namibia's resilient future.

Theoretical Background

The theoretical background of embracing change and fostering education for a sustainable future through the arts in Namibia is rooted in the principles of Education for Sustainable Development. ESD emphasizes the interconnectedness of environmental, social, and economic issues, aiming to empower learners to make informed decisions and take responsible actions for environmental integrity, economic viability, and a just society for present and future generations.

The transformative power of arts education in fostering critical thinking, creative expression, and a deep understanding of cultural diversity aligns with the broader goals of ESD in nurturing a sense of global citizenship and environmental consciousness among learners. By integrating ESD principles into arts education, Namibia can equip students

with the knowledge, skills, values, and attitudes necessary to contribute meaningfully to sustainable development.

By embracing this holistic approach, Namibia can cultivate a generation of learners who are proficient in artistic expression, environmentally conscious, culturally aware, and equipped to address complex sustainability challenges.

It is essential to consider the theoretical background that underpins equity and access to quality education. Equity in education is rooted in the principle of fairness, aiming to ensure that all individuals can access and benefit from quality education, regardless of their background or circumstances. One of the key theoretical frameworks informing discussions around equity and access to education is the capability approach, which emphasizes the importance of enabling individuals to have the capabilities to lead lives they have reason to value, including access to quality education.

Method

The research will utilize qualitative and quantitative methods to comprehensively examine the influence of arts education on sustainability and cultural awareness in Namibia. The study aims to provide in-depth insights into how arts education impacts environmental sustainability and societal consciousness in the Namibian context.

In this study, we will employ qualitative and quantitative research methods. Qualitative methods, such as interviews and observations, will be utilized to gain in-depth insights into participants' perspectives and experiences. These methods will allow us to capture the nuances and complexities of the participants' lived experiences. On the other hand, quantitative methods, notably surveys, will be employed to systematically measure and analyze changes in participants' knowledge and attitudes. By using surveys, we aim to gather numerical data that can be statistically analyzed to discern patterns and trends in participants' responses. This multifaceted approach will provide a comprehensive understanding of the research topic by triangulating data from different sources and methods.

Literature and policy documents will also be reviewed to understand Namibia's existing framework for arts education and sustainability. This holistic approach will thoroughly explore methods for fostering education for a sustainable future through the arts in Namibia.

Results/Outcomes

The study aims to provide valuable insights into how integrating sustainable development principles into arts education in Namibia can impact the results and outcomes of the educational process. The anticipated findings will shed light on the effectiveness of this integration and its potential to contribute to a more sustainable and holistic approach to arts education in the Namibian context.

The research aims to demonstrate the positive impact of arts education on fostering environmental consciousness, cultural sensitivity, and critical thinking skills among students. The study anticipates observing a measurable improvement in students' knowledge, attitudes, and behaviors related to sustainability due to participation in arts education programs that incorporate ESD principles.

The anticipated results will illuminate the significance of arts education in nurturing a collective sense of global citizenship and contributing to the development of a more sustainable and adaptable future for Namibia. The research will aim to pinpoint specific obstacles and opportunities for enhancing the incorporation of sustainability principles into arts education. The resulting findings will offer valuable perspectives for decision-makers, educators, and stakeholders.

The forthcoming results of this study are expected to make a significant contribution to the existing body of evidence, emphasizing the critical role of arts education. The findings are anticipated to highlight how arts education fosters not only environmental awareness but also cultural sensitivity among individuals. Additionally, the research aims to illustrate how integrating arts education into Namibia's educational system can play a pivotal role in advancing the country's sustainable development goals.

Conclusions/Discussion

The research definitively demonstrates the significance of integrating sustainable development principles into Namibia's arts education curriculum. This integration is essential for promoting environmental stewardship, social responsibility, and economic sustainability within the country's arts education framework.

The research results emphasize the significant role of arts education in fostering an appreciation for environmental issues, encouraging respect for diverse cultures, and developing students' analytical and reasoning abilities. By embracing change and fostering education for a sustainable future through the arts, Namibia can cultivate a generation of learners who are proficient in artistic expression, environmentally conscious, and equipped to address complex sustainability challenges.

Furthermore, the discussions underscore the critical role of arts education in promoting a sense of global citizenship and shaping a more sustainable and resilient future for Namibia. Arts education can be a powerful platform for engaging students in dialogues about sustainability, cultural heritage preservation, and environmental conservation.

The discussions also address potential challenges and opportunities in integrating sustainability principles into arts education, emphasizing the importance of ongoing support and collaboration among educators, policymakers, and stakeholders. Overall, the study's conclusions and discussions highlight the potential of arts education to contribute meaningfully to sustainable development in Namibia and underscore the importance of continued efforts to prioritize and enhance arts education within the broader framework of sustainable development goals.

Keywords: Arts education, Sustainable development, Cultural sensitivity, Critical thinking, Sustainable future.

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Sub Theme 9

Advancing Teacher Training and Professional Development

Evaluating academic courses for teaching of history: interpretations, reflections and proposals

Georgia Kouseri

Introduction

This presentation evaluates academic courses on teaching history and explores the factors that influence the professional identity of future primary school teachers in this discipline. The theoretical framework for the reflection developed in this presentation is based on the theory of social realism, particularly the views of Michael Young (2017), which assert that the validity of the knowledge taught in schools stems from the scientific community that has created and validated it. Similar views are expressed in the field of history teaching (Seixas, 1993). The research is based on interviews with five students from the Department of Primary Education at Aristotle University of Thessaloniki during the academic year 2022-23, all of whom attended three different courses in history teaching. Semi-structured interviews were used to investigate the knowledge gained by these future primary school teachers, how they intend to use their new knowledge, and their thoughts on further education in history teaching in relation to their professional identity.

Theoretical Background

In the field of history teaching and the corresponding literature, a dialogue between school history and academic history is necessary. Academic history examines the past using scientific methods, primarily based on the research of sources, and is produced and taught in university settings. It focuses mainly on reconstructing the past and conducting research. Specifically, academic history, in the context of teaching, emphasizes methods, tools, and approaches relevant to formal and informal education. Researchers and scholars such as Peter Seixas (1993) emphasize the critical role of teachers in bridging school history and academic history. According to Seixas, history teachers do more than transmit historical knowledge; they structure the experiences and knowledge of historians to make it understandable for their students. In this structuring process, which involves selecting sources and historical references, teachers act similarly to historians, adhering to scholarly conventions but for a different audience. In short, they conduct historical investigations and attempt to initiate their students into similar practices. To teach with the goal of cultivating historical thinking meaningfully, teachers should be aware of modern approaches to academic history, which are based on a multitude of research studies that examine how students think and propose teaching methods aligned with the scientific method of history.

Method

The research involved pilot qualitative research with semi-structured interviews. The sample was convenient. Students were invited via email to participate in interviews lasting 30 minutes to one hour to explore their experiences of teaching history. Five female students participated, all of whom had taken three history teaching courses (History Teaching, Modern and Contemporary Greek History, and Dialogues on School History). The participants, aged 20-40 years, were all third-year students. One of them already held a bachelor's degree in literature and two master's degrees. The study aimed to answer the following research questions:

- What kind of knowledge do the participants claim to have acquired through attending three academic courses in history teaching?

- How do participants believe this knowledge will change them or enable them to teach history in the future?

- How do they envision their future training in history teaching issues?

The data analysis followed an inductive process to explore the participants' claims about how the new knowledge began to change them and what it allowed them to do.

Results/Outcomes

Participants reported gaining a variety of knowledge from attending the courses. First, they acquired content knowledge about Modern and Contemporary Greek History. They also gained insights into broader world history topics, such as World War II (for example, the Holocaust) and contentious issues in history education faced by countries worldwide (topics taught in the course Dialogues on School History). Additionally, they mentioned gaining knowledge about teaching approaches for using historical sources and oral history (from the history teaching course).

They found the theoretical framework of the scientific approach (content knowledge and second-order concepts) very interesting and even used concepts in their lesson plans (such as the concept of time, multi-perspectivity, and the moral evaluation of the past). Finally, they expanded their knowledge of the relevant literature on the content and methods of teaching history.

Regarding how this knowledge changes them, the results are noteworthy. They claimed that the knowledge acquired represents a "reversal" of the traditional model they were accustomed to in school history education. They believe they should guide their students through research processes by first organizing their own research on historical sources and multimodal materials (possibly employing a flipped classroom model with collaborative group pedagogical processes).

They also stated that they would attempt to gradually demystify contentious issues; otherwise, they emphasized, the contentious nature of these issues would persist. They plan to utilize second-order concepts such as multi-perspectivity, empathy, and the moral dimensions of the past.

When asked which training and professional development options they considered appropriate and effective for transforming their practices, all participants indicated that they would like to participate in a training cycle in various fields. There was particular interest in digital historical learning and the use of historical resources.

Conclusions/Discussion

The results of this pilot study showed that the respondents identified areas in which they had transformed their knowledge, such as content knowledge (national and world history, contentious issues in history education) and teaching approaches to the subject of history in primary education. They emphasized the importance of their own preparation before organizing exploratory approaches with student researchers in a collaborative group context. They noted that they found knowledge about approaches to history education (traditional, modern, and postmodern approaches) to be subversive for themselves.

To address the challenges of teaching history in schools, they highlighted the need for future connections with the academic community specific to history teaching. The necessity for direct engagement with the academic community from which the subject of history originates was particularly emphasized by participants who already had other undergraduate and postgraduate studies, as well as experience teaching the course, which raises significant concerns for the future evaluation of the teaching project.

Keywords: History education, academic history, history teaching, teacher training evaluation

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Professionalize teachers. Knowledge and uses of computer-based assessment tools

Laura Sara Agrati, Loredana Perla, Viviana Vinci & Arianna Beri

Introduction

Assessing is defined as "comparing the evidence collected (observed events) with a project (expected events) and presupposes the detection of factual data, situations, and results (...) commensurate with the nature of the phenomena" (Calonghi, 1976, p. 20). Since assessment has been recognized as a strategic lever for reforming schools and the education system (OECD, 2022), as well as a fundamental principle of the curriculum in many countries (Darling-Hammond, 2016; European Commission, 2023), supporting teachers in implementing responsive assessments in classrooms that are sensitive to the increasingly diverse needs of students (Perla, 2019; De Luca et al., 2019) has become a necessity.

Regarding the more general "ability to understand the different concepts, processes, and purposes of assessment, and to use them in making informed educational decisions" (Popham, 2011, p. 267), research agrees on several key elements that define the phases of the evaluation process: (a) build/select evaluation techniques and tools to collect valid and reliable data; (b) administer tools according to procedures suited to the students' conditions; (c) efficiently collect, analyze, and interpret the resulting data without neglecting important information; and (d) communicate the results to parents and students to guide them regarding the educational path (Gardner et al., 2010).

Although recent clarifications have informed initial and in-service teacher training paths, high levels of illiteracy regarding assessment remain in both pre-service and in-service contexts (Christoforidou and Kyriakides, 2021; Atjonen et al., 2022), often related to unfamiliar teaching conditions, such as the COVID-19 pandemic period, which necessitated a shift to computer-based evaluation.

Theoretical Background

The elaboration and selection of valid and reliable assessment techniques and tools, as well as their appropriate administration to the settings and learning conditions of students, are initial phases of the canonical assessment process and skills that a trained teacher must develop professionally. Tools for school assessment are generally defined as means aimed at adequately making explicit the knowledge, skills, and competencies related to the evaluated individual (Vertecchi, 2003). They are also considered devices that facilitate the evaluative act of 'comparing' and through which the evaluative action of 'forming' is carried out (Agrati, 2021, p. 78; Falardeau et al., 2016).

Research is increasingly focused on examining the relationship between student performance and assessment formats (e.g., multiple-choice tests, quizzes, short answers,

fill-in-the-blank questions, short essays, etc.), as well as the functionality and mode of administration of assessment tools—specifically, 'paper and pencil' versus 'software.' The 'software' mode generally allows the teacher to proceed through each phase of the evaluation process (e.g., choice of formats, evaluation criteria, score/levels to be assigned, interpretation methods, communication of results) via digital support, specifically offering continuous feedback, personalized criteria, and 'invisible' assessment settings for students (e.g., gamification; Souza et al., 2016).

Method

The elaboration and selection of valid and reliable assessment techniques and tools, along with their appropriate administration to the settings and learning conditions of students, are initial phases of the canonical assessment process and skills that a trained teacher must develop professionally. The tools for school assessment are generally defined as means aimed at adequately making explicit the knowledge, skills, and competencies related to the evaluated individual (Vertecchi, 2003). They are also considered devices that facilitate the evaluative act of 'comparing' and through which the evaluative action of 'forming' is carried out (Agrati, 2021, p. 78; Falardeau et al., 2016).

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Results/Outcomes

The teachers involved reported that they place great importance on the thoughtful selection of assessment tools (n = 1805, 47.8%) and that they use both 'paper and pencil' and 'software' types of assessment tools, with a slight preference for the former (n = 1688, 44.7% - n = 1566, 41.4%). Teachers consider the 'paper and pencil' mode to be most suitable for different assessment formats: multiple-choice tests (n = 1187, 31.4%), short answers (n = 862, 22.8%), fill-in-the-blank questions (n = 571, 15.1%), and short essays (n = 794, 21%); conversely, the 'software' mode is almost entirely associated with the 'multiple-choice test' format (n = 2798, 74%) and 'fill-in-the-blank questions' (n = 435, 11.5%).

Furthermore, the teachers involved find the 'paper and pencil' method useful in three phases of the evaluation process: choice of formats (n = 1165, 30.8%), administration of the test (n = 889, 23.5%), and collection, analysis, and interpretation of data (n = 1050, 27.8%), while the 'software' mode is mainly useful for the data collection, analysis, and

interpretation phase (n = 1747, 46.2%) and to a lesser extent for the choice of formats (n = 885, 23.4%).

According to the teachers, among the factors that facilitate the choice of the most appropriate assessment tools are a thorough understanding of the needs of the class and adequate training, especially in the use of assessment software. Conversely, factors that hinder such appropriate choices include a lack of or inadequate training and an unsupportive school context—referring to insufficient technological resources and leadership that does not invest in teachers' evaluation skills.

Conclusions/Discussion

The study highlighted that, in general, reflecting on assessment tools leads teachers to be more aware of the diverse needs of students and the necessity for personalized choices. Specifically, it stated that better explanations regarding types, formats, and methods of delivering assessment tools enable teachers to consider the factors that favor or limit decision-making at the assessment level. For teachers, examining the types, formats, and methods of assessment tools is not merely a technical concern but a means of better understanding contextual dynamics—linked both to students' needs and to the supports available in the environment (e.g., in terms of quality training and leadership). This aspect seems to confirm research relating to the close relationship between the need for responsive assessments in classrooms and teacher professionalization (De Luca et al., 2019).

The study also highlights a slight disconnect between research evidence and teachers' perceptions regarding 'software' evaluation tools: while research attests to their usefulness across each phase of the evaluation process, teachers primarily recognize their utility in the data analysis phase. This discrepancy should prompt those responsible for organizing training courses for in-service teachers to integrate computer-based and online assessment methods as core content and skills to be developed, ensuring that technology is viewed as an accessible resource rather than a luxury for a select few.

The hybridization of educational assessment with digital technologies offers multiple advantages in terms of increasing personalization, flexibility, and adaptability. The use of computer-based assessment tools (including quizzes and video-based assessments, as well as the integration of AI and assessment analytics) allows for learner-centered models in which students can choose flexible assessment methods, such as continuous or authentic assessments (Perla & Vinci, 2023; Rossade et al., 2022; Villarroel et al., 2018). The adoption of technological tools also enables a form of continuous and automatic feedback, which can be personalized to meet the individual needs of students, reducing the workload for teachers and allowing them to focus more on the pedagogical aspects of their work (AlFarsi et al., 2021).

Keywords: assessment practices, teachers' professional development, computer-based assessment tools

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Reflective diary/journal and health promotion in Primary education

Despoina Styla, Evangelia Antoniou, Eirini Orovou & Maria Tzitiridou

Introduction

Health education can be effectively integrated into various subjects within primary education. Topics such as Mental and Emotional Health, Personal Health, Family Life and Health, First Aid, Consumer Health, Disease Prevention, Nutrition, Community Health, and Drug Use can easily be included in existing curricula. Starting health education early leads to more positive lifelong outcomes. Schools and early childhood programs are ideal for implementing health education, as they already play a significant role in promoting health. Moreover, in recent years, the reflective diary/journal has become recognized as a crucial tool for learning assessment and the development of health education. By employing reflective practice through various models, the reflective journal aims to enhance learning (Goker, 2016). This article emphasizes the importance of using a reflective diary/journal in teaching health to primary education students. Given the limited literature on the subject, the article aims to lay the groundwork for future theoretical and empirical research in this area.

Theoretical Background:

What is a Health-Promoting School?

The school initiative should involve health and education officials, teachers, unions, students, parents, health providers, and community leaders in making schools healthier. It focuses on creating a healthy environment, providing health education and services, and engaging in school/community projects and outreach (Norrie, Hammond, D'Avray, Collington, & Fook, 2012). Moreover, the school initiative should include health promotion for staff, nutrition and food safety, physical education and recreation, as well as counseling, social support, and mental health promotion. It enacts policies and practices that respect individual well-being and dignity, offer numerous opportunities for success, and recognize good efforts, intentions, and personal achievements (Canniford & Fox-Young, 2014).

What is a Reflective Diary/Journal?

Learning or reflective diaries, also known as reflective journals, are similar to personal diaries, enabling individuals to document their feelings and reactions to events or experiences as they occur. Keeping a reflective diary helps one better understand and reflect on experiences, their content, and their impact on learning and personal growth (Papouli, 2016). Reflecting on progress is crucial for development, as it helps internalize learning and apply it to daily life. Effective reflection goes beyond merely describing events; it involves interpreting and analyzing how these events affect personal growth. Therefore,

reflective diaries are unique records that detail and explore significant learning experiences (McGuigan, 2009).

Method

Initially, the concept of health promotion in schools is analyzed, followed by an examination of the concept of a reflective diary or journal in health promotion. The methodological approach of this study is based on a review of the literature. The analysis is grounded in existing theoretical and empirical research in the international scientific field.

Results/Outcomes

As schools aim to enhance the health of personnel, families, community members, and students, they collaborate with community leaders to understand the community's impact on health and education. Mental health initiatives in schools focus on improving students' social, emotional, and spiritual well-being to help them achieve educational and health objectives and to interact respectfully with peers, teachers, family, and the community. Evidence indicates that successful mental health initiatives are well-designed, based on proven theories and practices, connect the school, home, and community, promote supportive relationships among students, teachers, and parents, and employ interactive learning methods, such as keeping a reflective diary (Dyment & O'Connell, 2011).

Maintaining a reflective diary maximizes experiences and helps explore future possibilities. It aids in recalling observations, questioning feelings and thoughts about those experiences, and identifying skills to develop. Regularly revisiting the diary is important (Park, Kam, Yune, Lee, & Im, 2022). Reflective diaries can serve multiple purposes: they enable individuals to think about health experiences, reflect on past and present events, and consider future scenarios. Reflection helps develop skills, learn from situations, and think clearly. It also allows for understanding others' perspectives and exploring one's own emotions (Chirema, 2007).

If a teacher chooses to use a reflective diary or journal to encourage healthy habits, it should have a clear structure. This could be chronological with dates, formatted as case notes, or even presented as a reflective video diary. It is crucial to provide clear guidance notes to help learners know what is appropriate and relevant to include. These notes should also highlight the importance of personal disclosure and confidentiality (McLeod, Barr & Welch, 2015).

Conclusions/Discussion

In conclusion, students do not naturally acquire self-reflective skills as they progress through school. To foster these abilities, educational interventions are necessary. These interventions aim to teach students various methods of self-reflection and emphasize its importance in developing their skills, particularly through reflective writing within health promotion and health education contexts. This approach encourages students to think

critically about their learning process during health education/promotion, enhancing their ability to manage and improve it (Moon, 2003). Reflective journals play a crucial role by providing a method for evaluating students' learning and prompting self-evaluation through reflection on their experiences. This reflective practice positively impacts critical thinking; by applying their learning to real-world problems through self-reflection, students gain a deeper understanding and improve their learning abilities (Wooley, Eberst & Bradley, 2000). Therefore, it is essential for all school teachers to consider implementing a reflective diary/journal during health education and in promoting healthy habits among all students.

Keywords: Health promotion, primary education, reflective diary/journal, healthy habits.

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Creating Authentic Assessment Framework for Reimagining Teaching and Learning

Meher Rizvi

Introduction

In January 2021, I undertook the responsibility of overseeing a national project involving curriculum design and enhancement at both the national and provincial levels. One of the key deliverables was the development of comprehensive assessment frameworks for grade levels Pre-I to VIII for all subjects taught in Pakistani schools. These subjects included Early Childhood Education (ECE), Mathematics, English, General Science, Urdu, General Knowledge, Social Studies, History, Geography, Religious Education (Islamiyat), and Computer Education. The development of these assessment frameworks followed a rigorous process, focusing on the changing demands of the future and the contextual realities of public and private schools in Pakistan. They were based on the principles of achieving the goals and purposes of quality education articulated in the National Curriculum Frameworks (NCF) and other policy documents through a coherent and robust national assessment system (Government of Pakistan, 2018). The project concluded in May 2023. The process of developing the framework taught us important lessons and highlighted principles that need consideration when designing authentic assessments for teaching and learning. The key focus of this paper is the four principles we derived from a careful analysis of our experiences. These principles will also be the focus of discussion during the oral presentation.

Theoretical Background

There is now a growing realization regarding the implications of teaching to the test (Martone & Sireci, 2009; Posner, 2004). There are sufficient arguments about the efficacy of effective test development, which has the power to ignite curiosity and critical thinking among students and create incentives for teachers to engage students in ambitious instruction (Darling-Hammond & Falk, 2014). As such, educators have redirected their attention toward creative alignments across curriculum components: standards, benchmarks, and student learning outcomes (written curriculum), teaching and learning (taught curriculum), and assessment (tested curriculum) (Squires, 2012). Creative alignment can lead to powerful teaching (Hopkins, 2001) and focuses attention on significant student learning outcomes.

The most popular and affordable examination system in Pakistan is matriculation and intermediate. There is general agreement that the matriculation/intermediate test is a rote-based system (Shahzadi, 2022). Students from high-income private schools also have the opportunity to take O and A level examinations, but their numbers are small. There is an over-reliance on end-of-year school-based summative evaluations in both public and

private school systems. Formative assessment may have been the intent of educators in the written curriculum, but its operationalization is rarely observed at the school level.

Based on the philosophy of creative alignment, the assessment frameworks encompass a shift in thinking from traditional methods of assessment to skills, attitudes, and key competencies in different contexts and for different systems, using assessment methodically to establish stronger teaching and learning practices.

Method

My personal narratives and reflections, as the key lead faculty assigned the responsibility of overseeing the entire project, will be the main sources of data generation. Starting from scratch and treading a challenging path to revolutionize assessment in Pakistan, several factors, both human and material, aided my efforts. Margaret Heritage's (Greenstein, 2016) cyclic model of purposeful assessment formed the basis of my planning and development. I soon became aware that creating authentic alignment is a tedious and lengthy task that requires human support. Academic scholars from various fields of expertise came to my rescue. Together, we formed a team of dedicated scholars who provided critical feedback and academic support in developing authentic linkages and mapping curriculum components, as well as offering content expertise to design teaching, learning, and assessment tasks, which we aligned for the effective achievement of student learning outcomes. In this paper, we discuss the four key principles derived from my analysis of reflections from six scholars who participated in this process.

Results/Outcomes

Analysis of reflections revealed that the original framework I created, which included the philosophy of assessment, was adapted by educators in sixteen different subject areas with relevant changes to suit their specific contexts. This diverted my attention to the first principle: a sound philosophical base is essential for developing an authentic assessment framework.

Research participants and I unanimously contended that detailed curriculum mapping to Student Learning Outcomes (SLOs) is an essential task. This suggests changes in the SLOs so that educators can purposefully create instructional designs that foster analytical, evaluative, and creative thinking and skills among learners. This analysis highlighted the second principle: a planned pre-assessment strategy is essential to develop curriculum maps illustrating the alignment between SLOs and learning taxonomies.

As the analysis continued, we identified assessment strategies critical for fostering deep learning among students. Key among these strategies were portfolio assessment and group project assessment. After deliberation, I formulated the third principle: there is a need to foster deep learning so that students can engage with the subject through purposeful assessment strategies and feedback.

We found that our decision to complement summative evaluation with formative assessment was contextually relevant. We reflected upon the coding schemes and assessment schedules we prepared to give equitable weight to both summative and formative assessments. Our reflection led to the fourth principle: the success of any assessment system depends on how teachers balance formative and summative assessments to meet the needs of students.

Conclusions/Discussion

Developing an authentic assessment framework that transcends mere memorization of facts and technical knowledge to assess humanistic, creative, and analytical knowledge, skills, and attitudes has imparted important lessons. The principles redirect our attention to the need to rethink assessment and evaluation through a carefully considered philosophy that is futuristic and encapsulates the ideals of a progressive society. Important questions to consider include what we are assessing and why we are assessing it. As noted, the majority of teachers teach to the test. Therefore, timely and thoughtful alterations in assessment can lead to effective changes in teachers' instructional designs and create alignment across various curriculum components.

Where needed, teachers would benefit from short courses on formative assessment and feedback, as well as the progressive notions of cyclic purposeful assessment within the Pakistani context. School leaders must develop yearly assessment programs and monthly assessment schemes that align with the principles, guidelines, and examples from the assessment framework. The framework can serve as a blueprint for assessment programs at the school level, providing a broad overview of policy guidelines for assessment while guiding the alignment of student learning outcomes with assessment strategies. It identifies learning targets, deep learning approaches, and strategies for assessing them to ensure that assessments are interconnected and purposeful (Chappuis & Stiggins, 2017; Crockett & Churches, 2017).

Keywords: Assessment Framework, curriculum mapping, cognitive development, skills and emotional development

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Gender Equality starts with Food: The Gender Hunger Gap, Education and Sustainability

Vassiliki Pliogou & Sophia Tromara

Introduction

Food insecurity (FI) remains one of the biggest challenges worldwide and a global priority for achieving sustainability, as foreseen in the UN's17 Sustainable Development Goals (SDG) Agenda 2030 -SDG2 'Zero Hunger' (UN, 2022). The term refers to a wide array of conditions, ranging from mild FI (uncertainty/insecurity in obtaining food), to moderate (reduction in the quantity, quality and/or frequency of access to food) and, finally, to severe FI (inability to secure food for a day or longer) (Chatzivagia et al., 2019). Hunger is the main cause of death globally, as it is estimated that every four seconds a person is dying of hunger, while 309 million people are facing severe FI, while it is estimated that 42.3 million people will confront emergency or worse levels of severe FI (WFP, 2024).

Although the food crisis is not equally distributed between the North and the Global South (FAO, 2023), global economic turmoil, the effects of the climate crisis, the Covid pandemic, and conflicts, have exacerbated pre-existing inequalities in resource distribution for the most vulnerable groups and created new challenges, even for economically wealthy countries (Grimaccia & Naccarato, 2022). Additionally, other factors, such as low socio-economic status, place of residence, familial characteristics, educational level, type of the economy, and gender, which are not confined to a single group of people or geographical area, are driving factors for FI (VOICE, 2022). In Greece, ELSTAT reports that 1 in 4 households face extreme poverty and the 6,6% of the population is confronted with moderate or severe FI (ELSTAT, 2023).

Theoretical Background

The hunger gap is mostly gendered. Prior research from around the globe (Santos et al., 2023) has highlighted that FI is fueled by gender inequality. 'Gender equality' (GE) is also the 5th SDG and a decisive factor for achieving all the SDGs (Pliogou & Tromara, 2024). Hunger has sexist characteristics, as 60% of people who are experiencing moderate or severe FI are women and girls (Janoch & CARE, 2023). The relationship between food and women is ambivalent, as, although women mostly are responsible for acquiring, preparing, and distributing meals, they are the ones who are skipping meals and face more food deprivation (CARE, 2022a). Additionally, 26% of food policies ignore women entirely and 47 % do not account of gender inequality (CARE, 2022b). FI of women is a multidimensional phenomenon, dependent on many causal factors, such as unpaid domestic work, higher unemployment rates and underpaid work, low rates of land property, discriminatory laws, lower/restricted access in water resulting often in sexual violence, sexist and discriminatory cultural/traditional norms, educational disparities, while pregnancy, childbirth and menstruation render women and their children more vulnerable to FI,

malnutrition and anemia (UN Women, 2023; UN WFP, 2022). Additionally, women are inflicted harder from climate induced disasters (UNEP, 2024), conflict and poor-quality health policies and services (CONCERN, 2022).

Advancing GE demands holistic and transformative approaches, increased multistakeholder collaboration, sustainable funding, and the empowerment of women. Robust solutions. which would provide 1 trillion to the global GDP and substantially restrained hunger (UN Women, 2023), mainly, involve theprioritization of GE in the food system, increasing women's role in decision-making, closing the gender pay gap, increasing female land-ownership, especially small-scale farming, accelerating female sustainable agriculture, improving and intensifying health care programmes for women, and providing quality education (CARE, 2022a; CARE, 2022b). Education can serve as the driving force for promoting GE and achieving a sustainable future and societal transformation (UNESCO, 2021). Towards this direction, education can transform values and attitudes, enhance critical thinking, collaborative and communicative skills, critical awareness, and prepare students to make informed decisions regarding sustainable development in both local and global contexts (UNESCO, 2016).

Method

The present paper concludes with suggested intervention activities, which are addressed to 6–8-year-old students.

- The objectives for students are to:

- Acquire knowledge relevant to Zero Hunger (2nd SDG) and Sustainable Development.

- Increase awareness about the causes and consequences of FI.

- Develop healthy food consuming habits.

- Understand how gender intersects with FI, environmental crisis, and socioeconomic inequalities.

- Critically think about FI in local and global contexts.

- Engage in dialogue with peers, while articulating arguments.

- Cultivate the concept of counteraction toward global resilience and GE.

Results/Outcomes

1. Visit the UN's web page of the 17 Sustainable Development Goals: https://sdgs.un.org/goals and get acquainted with the 2nd SDG 'Zero Hunger'. What do you notice? Why is the specific goal settled in the 2nd place after the 1st SDG-No Poverty? Why is it a priority on the Agenda? Is it somehow related to the 1st SDG? Study the infographic https://sdgs.un.org/goals/goal2 and keep notes about the key terms referred (hunger, crisis, worldwide, anemia, women, children, wellbeing, and sustainable development). What is hunger? Where do you believe it exists? Why are women and children more

vulnerable?

2. What is FI/malnutrition/hunger? Discuss what you know about these terms. What are the causes? What are the main challenges people or groups of people face when dealing with FI/hunger? What solutions would you provide? Use the following photo for getting some ideas.

    Source:https://wedocs.unep.org/bitstream/handle/20.500.11822/22737/2_Zero_Hunger_FINA%20L.pdf?sequence=1&isAllowed=y

3. Gender and FI. Discuss who is responsible in your family for shopping, preparing, and distributing meals in your family. Then discuss the following photos and try to find similarities and differences among them. Can you guess on which part of the planet are they located?

    Source:https://www.shutterstock.com/el/image-photo/beautiful-young-woman-preparing-vegetable-salad-1414475705

    Source:https://www.alamy.com/stock-photo-women-cook-a-meal-together-in-morogoro-tanzania-east-africa-41767640.html

    Source:https://www.alamy.com/stock-photo-woman-preparing-food-on-floor-in-bangladesh-kitchen-25036496.html

4. How is food coming to our table? What are you doing when you are feeling hungry?

    Discuss in the classroom and then describe the following photos. What are those people doing? Are these queues the same? How are they different?

    Source: https://www.fairplanet.org/editors-pick/sustaining-the-zero-hunger-resolve/

    Source: https://www.youtube.com/watch?v=tyQUYbnHaaU

    Source: https://www.dreamstime.com/stock-images-waiting-line-fast-food-image14210514

5. Food production and consumption. What are those people doing? How food comes to our table? What do you know about small farms? Who works in them?

    Source: https://stock.adobe.com/gr_en/search?k=%22zero+hunger%22&asset_id=658922077

    Source:https://www.unwomen.org/en/news/stories/2017/10/feature-western-balkans-rural-women-influencing-local-budgets

    Source:https://diasporadigitalnews.com/investing-in-women-accelerating-progress-toward-ac%20hieving-zero-hunger/

    Source: https://socialimpactil.com/sdg-2-cop28-food-security/

6. The unequal distribution of food. Which are your food preferences? How many meals do you eat? Where does food go when you do not consume it? What do you know about food loss? How can prevent it? Discuss the following photos: what kind of problem are they depicting? Is the same for everyone?

    Source: https://stock.adobe.com/search?k=%22zero+hunger%22&asset_id=488612856

Source:https://indepthnews.net/fao-ifad-wfp-vow-to-achieve-zero-hunger-target-by-2030/

7. Having Fun! Some parts of the following poster have been accidentally erased. Can you fill in the blanks and discuss possible solutions related to eating healthy, managing food production/consumption in a sustainable way considering equality and justice for all people?

Source: https://worldslargestlesson.globalgoals.org/resource/global-goals-comic-posters/

Group work: Paint, cut and glue different types of food in order to create a poster similar to the following ones. Do you know any food recipes? Share them in your group.

Source:https://waitro.org/event/waitro-sdg2-workgroup-webinar-harvesting-global-solutions- uniting-for-zero-hunger-research-collaborations-and-funding-opportunities/

Source: https://stock.adobe.com/gr_en/search?k=%22zero+hunger%22&asset_id=748472925

Conclusions /Discussion

This set of suggested intervention activities aims to raise awareness about FI and address most of the aspects related to the topic in a multidimensional way and in terms of gender and social justice. Learning outcomes will raise individual/group awareness and responsibility on food production/consumption and will be relevant to students' lives. Additionally, they have a transformative character and long-term implications, as they can change attitudes and empower students through a critical global perspective.

Keywords: Food insecurity, Gender equality, Sustainable Development, Education.

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Sub Theme 10

Redesigning the Curriculum

Learning from the community: Portaria primary school students reflect on local natural disasters

Stavroula Stoumpou, Anastasios Siatras & Katerina Pavlidou

Introduction

Research in the field of curriculum studies in early childhood and primary education indicates that learning objectives of new Greek 'Environmental Education' curricula focus on young children's active involvement in exploring and re-shaping processes developed in local communities. In this direction, the critical environmental education and sustainability movement supports 'bottom-up' educational applications, highlighting the importance of supporting students' voices on aspects associated with their local communities (Tsevreni, 2015). Thus, student engagement in educational activities exceeds curriculum boundaries by cultivating children's experiences and interests to reconnect with localities, such as neighbourhoods and villages (Gruenwald & Smith, 2014; Leou & Kalaitsidaki, 2017). This way, an open curriculum provides students with the necessary educational placement in order to develop transformative competencies inspired by their local communities.

The present study aims to explore the way 6th grade primary school students interact with their local community by investigating the impact of the September 2023 floods on their village in a Geography course. Results show that students' participation in the educational project led them to understand the flood impacts on individual, collective, and ecological levels as well as the interrelated dimensions.

Moreover, research highlights aspects of Geography education that form multidisciplinary approaches linked to subjects such as Maths and Language education. To conclude, we support the idea that the implemented Geography project allowed students to develop learning identities that exceed curriculum requirements linked to students' everyday lives.

Theoretical Background

Critical environmental and sustainability education empowers diverse voices in the classroom, such as students from different cultural backgrounds or with varying learning styles (Darder, 2015). This approach allows students to move beyond the traditional 'banking' model of education by actively reflecting on new learning experiences arising from their interests and the challenges they face in their communities (Tsevreni, 2015; Lang & Shelley, 2021). Effective pedagogical practices build on children's natural curiosity, replacing isolated textbook knowledge with a deeper understanding of the world around them. This hands-on experience sparks curiosity and allows them to connect classroom learning to real-world environmental issues (Hadjichambis & Paraskeva-Hadjichambi, 2020). Project-based learning exemplifies this by enabling students to generate new

knowledge, solve real-world problems, and engage with communities through research, analysis, and presentations (Kaldi et al., 2011; Freire, 2016; Giroux, 1988). It is supported that by completing a project that addresses a local environmental concern, children can reflect on their place in the world, taking action to build new identities as learners who actively engage with their communities. This study explores how aspects of natural resources or climate change highlight significant impacts beyond just socio-economic factors (Gruenewald, 2008).

Method

This sixth-grade project utilized critical research action, where students actively explored the impact of the 'Daniel' storm on their local community (Carr & Kemmis, 2009; Frydaki & Katsarou, 2013). Twelve students and two teachers formed teams that participated in the project for two months in Spring 2024. Driven by their curiosity about the storm, students planned routes using digital maps and videotaping critical points of damage and disruption in the local community. Students interviewed residents about the effects of flooding on daily life and community support. They analyzed findings collaboratively through plenary sessions, fostering critical thinking and communication skills (Katsarou & Sipitanos, 2019). Students transformed observations into insights through reports and charts. The project culminated in a presentation for the school community, sparking discussion about natural disasters in their village. Pedagogical documentation was analyzed using content analysis tools (Augitidou & Hatzoglou, 2013; Voulgari & Koutrouba, 2021; Iosifidis, 2008). The research questions guiding this study are twofold: a) How do students perceive the impact of natural disasters on their daily lives through their participation in the project? b) What aspects of children's learning identities emerge as they engage in research-action projects?

Results/Outcomes

Through a four-dimensional lens -disaster type, size, recovery plan, and community impact- students analyzed the flooding effects caused by the 'Daniel' storm. Utilizing digital tools, they documented critical infrastructure damage, including the road network, water supply system, homes and local businesses, and public spaces. Students pointed out a discrepancy between the media's portrayal and the reality of the disaster's extent ("It was broadcast on TV that the disasters were huge and that the roads were completely destroyed, while we see that most of the damages are at a manageable level to be repaired"). Students recognized the effects of 'Daniel' storm's flooding as having individual (e.g. "We had to change our house because the previous one had too much damage"), collective (e.g. "Tourism has decreased too much this year") and ecological impact (e.g. "Trees that were uprooted and the slopes that are gone are not coming back"). Analysis suggests that children's active engagement with the project shapes their learning identities towards an educational and community dimension. By exploring the effects of local flooding, students demonstrated a connection to the 6th-grade Geography curriculum (e.g.

"Climate change"). It is supported that environmental literacy fosters connections with subjects like Maths and Language by involving students in creating graphical representations of collected data, demonstrating mathematical analysis skills, as well as preparing and conducting interviews with residents, and practicing communication and information competencies. Analysis of pedagogical materials reveals that students view the flooding effects not just at the individual level but as a shared experience that necessitates working together (e.g. "I had a hard time when we had no water and I had to wash the dishes, but then I thought that I am not alone"). Fueled by community sense, students shared their findings with local media to restore the community's wellbeing (e.g. "We should call the TV channels and show them the information we gathered or make a video for them").

Conclusions/Discussion

It is supported that the critical research-action project presented in this paper transformed primary students into active participants in their local community. Students designed inquiries linked to their experiences, focusing on the collective and ecological impact of the September 2023 Daniel storm floods.

Emphasis was given to cultivating students' curiosity about the long-term effects and their role in recovery plans. While individual experiences mattered to students, the project fostered a sense of shared responsibility by prioritizing the community's

wellbeing. Results show that students reflected critically on the collected data, drawing informed conclusions with meaningful insights, strengthening their critical thinking skills. Finally, students disseminated their experiences to promote local wellbeing through presentations or collaborations with recovery public and private organizations. This paper highlights the value of transforming shared memories into pedagogical tools. By drawing on local experiences, critical environmental education becomes more relevant and engaging. Student and teacher interaction fostered diverse learning approaches ("differentiated learning identities"). It is supported that implementing such projects may encourage students to cultivate a sense of ownership and encouragement by empowering student voices and promoting student-driven inquiries. In this direction, critical environmental education positions community culture as a counterpoint to traditional education structures, fostering a collective sense of social change (Kaya & Kaya, 2017).

Keywords: critical education, natural disasters, geography education, curriculum studies, primary education.

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Social and distance education with the use of information and communication technologies as factors of social justice

Vasileios Mellos, Dimitrios Mantzaris & Despoina Styla

Introduction

The need for Social Pedagogy in Central Europe emerged at the same time as the need for Social Work, in response to the enormous social and economic crises created in Europe by the wars and the Industrial Revolution of the 18th and 19th centuries. The development of Social Pedagogy generally took place during the period of rapid social changes brought about by the intense urbanization of European societies following the Industrial Revolution and prior to the First World War. During this period, the need to address these problems became apparent, and the demand for the "empowerment" of society through appropriate education and social care arose.

Social Pedagogy has its roots in the work of educators such as Johann Heinrich Pestalozzi and Friedrich Schleiermacher. Pestalozzi emphasized the importance of the holistic development of the child, while Schleiermacher introduced the idea of education as a means of social reform. In the 20th century, Kurt Mager and other researchers further developed the theoretical framework of social pedagogy, emphasizing cooperation, solidarity, and social justice (Mager, 1949).

The evolution of technology has significantly impacted Social Pedagogy. Information and Communication Technologies (ICT) offer new possibilities for empowering the school community. Through the use of ICT, students can develop critical thinking and collaboration skills, access a wealth of educational materials, and participate in interactive activities that promote learning and social inclusion (Salomon, 1990).

Theoretical Background

Pedagogical science, as a social science, goes beyond the analysis and understanding of educational reality; it also seeks to promote change and transformative action within the field of education. In this context, C. Marx's critique (that the goal is to change the world) has informed the approach and practices of pedagogical science (Marx, 1969). Pedagogical science views change and transformative action as a key element of its function. This approach aligns with the idea that the social sciences should focus on addressing social conditions and creating a better society (Papert, 1980). Social Pedagogy emphasizes the development of social sensitivity, interaction, and the ability of individuals to actively participate in society. Its aim is to promote the integrated development of human beings, enabling them to successfully face life's challenges and problems.

Social Pedagogy addresses contemporary challenges such as inequality in access to education and the multicultural nature of school communities. However, ICT presents

opportunities to address these challenges by creating flexible and adaptive learning environments that can meet the needs of all learners (Hargreaves, 1994). The use of ICT can enhance social inclusion and promote equity in education (Resnick, 1987).

Overall, social pedagogy has evolved significantly since the 19th century and remains a critical area of education. The integration of ICT offers new perspectives and solutions to the contemporary challenges facing education. Further research is recommended to develop and implement innovative programs that use ICT to empower the school community and promote social justice.

Method

Initially, the concept of social education will be analyzed, and then the concept of Information and Communication Technologies (ICT) in distance education will be explored, highlighting the efforts of the educational system to create an equal society. The presence of differences in social class, educational environment, and student abilities in schools places issues of equality and equity on the agenda of educational policy.

Results/Outcomes

The case of Greece is unique because, in contrast to Europe in the late 18th and early 19th centuries, the general social, political, and economic components differed. Early conceptions of Social Pedagogy in Greece shared common roots with social care and work, and three main factors influenced its development: (a) the Church and its organizations, (b) local government, and (c) individuals or independent bodies. In the late 19th century, state agencies also took on a significant role, handling a large portion of care for people with educational, social, and economic problems. A major factor is also that, until nearly the end of the Revolution of 1821, there were no organized state structures; moreover, Greek economy and society remained rural.

Of course, Greece at that time was not isolated from the rest of Europe in terms of both problems and intellectual movements. Prominent Greek intellectuals, often living abroad, followed and sometimes contributed to evolving ideas. As elsewhere in the world, modern communication technologies significantly impacted Greek education toward the end of the 20th century. Especially after the fall of the junta in 1974 and the beginning of the post-independence period, Greeks, influenced by European ideas and international experiences, developed policies aimed at modernizing and developing Greek education.

More specifically, in Greece, the Hellenic Open University was established in 1995 after the proposal by Lionarakis. This institution brought about changes with open access for students and designed a flexible curriculum with a modern administrative structure oriented toward meeting their needs (Lionarakis, 2019). This development was pioneering and transformative for higher education institutions (HEIs) in Greece. Since its inception, the Hellenic Open University has played a leading role, developing new expertise as a representative provider and user of distance education in Greece. It has also propelled the

wider educational community into the digital age by implementing innovative practices (Lionarakis, 2019).

Social Pedagogy, according to Mollenhauer (as cited in Weiss, 2018), views its mission as empowering people to address the challenges they encounter in life. Social Pedagogy aims to cultivate attitudes that enable individuals to respond effectively to both interpersonal relationships and social circumstances, ultimately allowing them to embody humanity.

Moreover, it focuses on developing social sensitivity, interaction, and the ability of individuals to actively participate in society. The goal is to promote an integrated development of human beings, equipping them to successfully face life's challenges and problems.

Conclusions/Discussion

The preceding analysis makes it clear that there is a two-way relationship between technological progress and distance education, in conjunction with the general socio-economic developments in the region where education takes place. At the same time, distance education is influenced by specific individual reforms introduced in different countries, thus generating new social and educational data (Lionarakis, 2006).

In summary, pedagogical science treats change and transformative action as a key element of its function. This approach aligns with Marx's critique and the notion that social sciences should focus on the transformation of social conditions and the creation of a better society.

Pedagogical science and pedagogical philosophy address change and transformative action in education. According to C. Marx, philosophers merely interpret the world, while the goal is to change it. This critique has influenced social sciences, including pedagogical science.

Pedagogical science aims to understand educational challenges and problems and strives to propose solutions and reforms that will lead to social change and improve the educational experience. Thus, pedagogical science is not just a theoretical analysis of education but also a practice that seeks to change and reform the education system.

Keywords: Social pedagogy, Distance Education, Information and Communication Technologies.

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Concept maps: An educational tool for assessment in learning

Despoina Styla

Introduction

The concept map is a cognitive tool that facilitates the construction of new knowledge, enhances the connection between new and old knowledge, engages students of all levels in a critical approach to the teaching content, and leads them to visually represent their knowledge through a diagram in groups. It is also a means for the teacher to organize a lesson and can be an evaluation tool. This study aims to review the current literature on the educational tool of concept maps. Concept maps were first developed by Novak (2022) at Cornell University. Novak's research team based their work on David Ausubel's thesis, which states that knowledge is understood by the student when the student knows how and what they have learned relates to prior knowledge. During this research, the idea of presenting children's thinking with the help of a map of their thinking emerged. A concept map contains nodes and links. Two nodes, together with the link connecting them, form a snapshot. Nodes represent concepts, usually enclosed in a circle. The links consist of a line, which may also have an arrowhead if we want to show a one-way or two-way relationship. The line includes a label showing the relationship between one concept and the other. It thus looks like a large network with no obvious beginning or end. Concept maps are divided into the following types (Daley, Durning & Torre, 2016): spider concept map, hierarchical concept map, flowchart concept map, and systematic concept map.

Theoretical Background

The following steps are mentioned by Zandvakili, Washington, Gordon, Wells & Mangaliso (2019) for the creation of concept maps by students: Before starting, students need to plan their concept map, considering what they are interested in presenting, what points they want to make, what kind of information they need, and what learning objectives they need to achieve. They need to identify the important concepts and create, define, and configure nodes. They should also create links between concepts, extending the map. The process should not end until the task is completed. Concept maps have been used in the educational process in various fields of knowledge, such as environmental education, science teaching (biology, physics, chemistry, mathematics), information technology, language studies, and at various levels of education (e.g., preschool, primary, secondary, tertiary, and adult education). Teachers can use concept maps as a means of organizing and presenting lessons in the classroom (Arulselvi, 2017), as a diagnostic tool for detecting and representing prior knowledge, and as a tool to evaluate learning and cognitive change after the teaching intervention (Novak, 2010).

Method

The methodological approach of this study is based on a review of the literature. The description and analysis of concept maps are based on existing research (both theoretical and empirical) in the international scientific field.

Results/Outcomes

In particular, concept maps can be used in many ways: They can be provided ready-made to students, or students can construct or complete maps on their own or in groups. Concept maps can also be electronically enriched with images and hyperlinks, so they become a useful teaching tool. They may also involve tasks such as constructing a map related to a central concept, correcting a map given to students, expanding a map, completing a map, or any combination of the above (Ries, Schaap, Loon, Kral & Meijer, 2022). In this way, all learners, especially those who prefer visual learning, benefit when they master information and thoughts using a combination of shapes, colors, pictures, text, and sound (Wagner, Bal, Brinchmann, Noble, Raeymaekers & Bjørnevikk, 2023). Moreover, research has found that the use of these maps helps improve student learning and performance because they are concise, they help structure and relate concepts, and they provide the teacher with an observable record of concept understanding. They are also easily readable and provide opportunities for review. They are a tool that requires the active involvement of the learner and provide teachers with metacognitive information. Critical thinking is cultivated through the phases of idea production, organization, and the revision and reformulation of the original text (Schroeder, Nesbit, Anguiano & Adesope, 2018).

Conclusion/Discussion

The literature review highlighted the immense value and usefulness of using even the simplest concept map, such as the spider map, in the educational process for both teachers and students. In the field of assessment, concept maps are an indispensable tool, especially in the initial phase, where diagnostic assessment takes place. This does not mean that they cannot also be used in procedural and final assessments. For example, students' concept maps before teaching a new subject can provide valuable information about their prior perceptions of the topic, allowing the teacher to plan instruction accordingly and achieve constructive teaching. In the formative assessment phase, the qualitative analysis of students' sequential maps can reveal the degree of understanding of the concepts as well as their conceptual change, allowing the instructor to reflect on the teaching plan and modify it as needed (Chang, Sung & Chen, 2022; Machado & Carvalho, 2020). Finally, as an extension of the present study, an empirical survey could be conducted to determine the percentage of Greek teachers who use this tool in their teaching preparation and practice for assessment purposes.

Keywords: Concept maps, educational tool, assessment

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Supporting Novice Secondary STEM Teachers through Induction and Mentoring: A Qualitative Analysis

Karen Mcintush, Karla Garza & Amanda Campos

Introduction

The need for new STEM teachers is reflected in a recent National Center for Education Statistics report, which showed teacher vacancies in 44% of all United States public schools as of October 2022. Teacher shortages are particularly elevated in schools in high-poverty areas and those servicing high-minority student populations (NCES, 2022). STEM teachers consistently top the list of those in high demand (Dee & Goldhaber, 2017). STEM teacher shortage is exacerbated by teacher retention concerns that have continued to mount since the outbreak of COVID-19 (Barnum, 2023). High-poverty schools have even greater attrition concerns, challenging schools to retain high-quality teachers (Garcia & Weiss, 2019).

Our secondary STEM teacher preparation program at a southern tier in one research institution has mission to prepare and retain highly qualified STEM teachers for underserved students in the area and beyond. It aligns with *Beyond100K*, the national goal to prepare and retain 150,000 new STEM school teachers, particularly for schools serving majority Black, Latinx, and Native American students by 2032 (100Kin10, n.d.). One initiative included our enhanced mentoring and induction program to support novice STEM teacher graduates in the classroom through the New Teacher Academy (NTA) coupled with yearlong mentoring. Researchers examine the impact of using Master Teacher Fellows (MTFs) as mentors in an induction and mentoring program and their perceived impact on novice teachers' feelings of competence, autonomy, and belonging by reimagining teacher mentoring models.

Theoretical Background

Self-Determination Theory (SDT), the lens of this study, is a "macro-theory of human motivation, emotion, and development that takes an interest in factors that either facilitate or forestall the assimilative and growth-oriented processes in people" (Niemiec & Ryan, 2009, p. 134). Humans are social beings, curious about their environment. Their specific context can positively influence or hinder intrinsic motivation (Ryan & Deci, 2017). SDT, a theory of motivation, relates to flourishing and wellbeing. SDT focuses on conditions that support or thwart wellness and flourishing in environments. Intrinsic motivation stems from feelings of competence, belonging, and autonomy (Cherry, 2019). Novice teachers desire to be competent and feel they belong in the education system in which they teach. When people have autonomy in their work environments, they feel some control over the actions needed to make changes, specifically autonomy in meeting students' learning needs. As novice teachers, they also seek to belong as they navigate the reality shock of

teaching in the early years. SDT suggests sustaining intrinsic motivation occurs when basic psychological needs are satisfied (Niemiec & Ryan, 2009). When programs support novice teachers in autonomy, competence, and belonging, self-efficacy as a STEM teacher is supported, potentially leading to greater retention rates. It is paramount to acquire a deeper understanding of how induction and mentoring experiences influence and shape aspiring teachers' feelings of competence, autonomy, and belonging as they begin their foundational years as teachers.

Method

To explore the experiences of our MTFs over their time serving as mentors, a qualitative analysis (Saldaña, 2016) was conducted through data collected from six MTFs trained by our program. Two team members conducted virtual semi-structured interviews with questions intentionally exploring practices used, successes and challenges, and recommendations for supporting mentors in the future. Interviews were 45-60 minutes and recorded and transcribed using Otter.ai. Other data came from the MTF Mentor Survey and the NTA Participant Feedback Survey conducted at the culmination of the 2023 New Teacher Academy which triangulated the data (Clark & Ivankova, 2016). MTFs connected with their mentees at the NTA and continued mentoring them throughout the 2023-2024 school year. The team emergently coded the data sets through the lens of SDT to identify concepts aligned with competence, belonging, and autonomy. Researchers identified emergent themes within and across cases.

Multiple rounds of debriefings between coders were conducted and then collectively discussed as a research team. Member checking was also conducted to ensure trustworthiness (Nowell et al., 2017).

Results/Outcomes

Three key themes emerged exploring MTFs' mentoring experiences and the yearlong induction program: *Collaboratively Sharing; Importance of Building Relationships; and Autonomy through Open-mindedness*. All agreed that the NTA was the springboard for establishing the initial mentor-mentee relationship. MTFs expressed growth in novice teacher competence as they *collaboratively shared* ideas and received feedback to improve practice. Larry worked with another MTF to "bounce ideas off each other" to improve his mentoring. He used those ideas to support mentors in their lesson development and implementation. Students grew in confidence as a result of continued practice and mentorship. Sebastian saw students' competence improve when his mentees shared and used a lesson in his classroom. Reina encountered one of her mentees in a meeting and collaborated on a specific lesson, learning from each other.

The curriculum was co-created collaboratively, validating mentees' content and pedagogical competence.

MTFs agreed *relationship-building* was key to successful mentoring. Sebastian worked to ensure his mentees felt belonging. He emphasized, "they want to feel like they belong."

One way to accomplish this was through getting to know them personally and that he was "a regular dude talking about regular things". He ensured he was open, consistently reaching out, sharing lesson ideas, and meeting them for social occasions. Shelly established belonging through informal social events where they "could see her as a friend and not an authority".

MTFs provided mentees autonomy when they shared lessons and ideas, freely allowing mentees to tweak them based upon their context. This allowed the mentees time to adapt and grow over their first year. Sebastian, Susan, and Larry stressed the importance of " being open," allowing mentees to try new ideas and supporting them as they grow in their independence as teachers.

Conclusion/Discussion

Mentoring novice teachers through induction programs is key to retaining them in the classroom (Keese et al., 2023). Studies show that the attitudes and perceptions of teachers are significant as they may impact job satisfaction, retention, and teaching practices (Wang et al., 2015). MTFs were instrumental in establishing belonging early in the induction process through the NTA, with continued support to mentees throughout the entire school year. This support improved the mentees' competence and autonomy, but also benefited mentors in obtaining new lesson ideas. Additionally, MTFs supported each other, aligning with other work on multi-layered mentoring (Craig et al., 2023).

This study contributes to the literature by expounding on the benefits of enhancing induction and mentoring programs for STEM novice teachers through quality mentors in an effort to retain novice teachers. Not only did our mentors see increased competence, belonging, and autonomy among mentees, but they also developed in these areas as mentors. The NTA and the consistent yearlong mentoring provided a valuable partnership for growth for both mentor and mentee, consistent with other research (Ewing, 2021). The experience shared by our mentors shed light on key attributes of mentoring, while also pointing out ways to grow and enhance the program. Future research will involve the stories of the mentees of these mentors, providing the perspective needed to fully understand the impact of the program and retention. Implications for practice and ideas for starting a mentoring and induction program will be shared.

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Sub Theme 11

Learner-Centric Pedagogical Approaches

Supporting empowerment through mathematics education in a high turnover prison context

Giulia Bernardi, Domenico Brunetto, Helena Dell'Anna, Sofia Galli & Francesco Nappo

Introduction

Prison education plays an important role in successfully integrating incarcerated individuals and their social inclusion upon release (Manger et al. 2010; Ferrarello & Mammana 2022). Mathematics education can be a powerful tool for bridging educational gaps and empowering individuals in socially marginal contexts (Brunetto et al., 2021). Moreover, perceived competencies in mathematics can help improve social status in such contexts (Byrne & Carr, 2015). However, designing an educational experience that ensures equitable access to mathematics education in prison poses immense challenges (Byrne & Carr, 2015), particularly in prisons with high levels of conflict and turnover. In this talk, we present preliminary results concerning an educational experience designed for young adults in conditions of short-term incarceration in a high-turnover Italian prison. Our mathematical workshops involved 28 males between 18 and 30 years old of six nationalities, mainly from Northern Africa, with an average schooling age of 13. Our experience offers insights into the opportunities and challenges for equitable mathematics education in an extremely fragile prison context. In particular, our results are informative with regard to the potential of mathematical education to enhance inmates' empowerment.

Theoretical Background

Our workshops aimed to trigger inmates' psychological empowerment via mathematical empowerment (Andrà & Brunetto, 2020). Competence of problem-solving can be an important tool for dealing with daily life and gaining confidence in problem resolution starting from the mathematical world (Brunetto et al., 2021). Heuristically, we distinguish the capacity of completing exercises from that of solving mathematical problems as described by (Di Martino & Zan, 2019). In the former case, the solution is found by methods already known, in the latter case, both the questions and the resolution strategy must be identified via distinctive cognitive effort.

The workshop design was based on previous experiences of mathematical instruction in immigrant communities (Brunetto et al., 2021) and existing literature about teaching mathematics in prison (Byrne & Carr, 2015; Maffia & Decembrotto, 2022). Furthermore, we considered experiential learning theory and informal mathematics education, where student learning is attained through personal experience and involvement (Kolb, 1984) and out-of-school (Kuş, 2024). In line with Manger (2010), we hypothesized that experiential learning activities assume an even greater importance in prison, where convicted

individuals are often relieved of work responsibilities. Therefore, having a space where they can learn by doing can be an important incentive. Finally, we were inspired by Maffia and Decembrotto (2022), who noted the utility of assigning tasks with multiple difficulty levels.

Method

We designed six workshops that were not preparatory to one another since inmates' participation in activities is often not continuous. Each workshop was attended by an average of 10 participants, three instructors, and, occasionally, an interpreter. Each workshop focused on a specific topic, such as symmetry, networks, and games. All tasks were given verbally in Italian and written down in different languages for easy access. For most tasks, a graphical representation of the problems was made available.

Each workshop was structured into three parts. The first consisted of a challenge that could be tackled in pairs or individually while waiting for other participants to arrive. The second part was the core: solving a problem, possibly given by steps of increasing difficulty. The third part consisted of compiling a mathematical journal to note what was done and learnt. At the end of each workshop, attendants were provided with a take-away puzzle.

The data consists of instructors' observations collected in the weekly diary, the student log, and student feedback in the journal. Moreover, at the end of the last workshop, participants filled out a questionnaire (QF) about the course (translated into different languages). We analyzed their close-end responses quantitively, while open-end responses were analyzed qualitatively.

Results/Outcomes

According to the student log, only one inmate attended all the workshops, while seven people attended at least four workshops. The third and fourth workshops were the least attended, with five participants. We attribute this trend to prison organization rather than the workshop topic or structure. From the questionnaire, all participants preferred working "in pairs" or "in groups."

From the qualitative data, some notable aspects emerge. Two participants commented on the utility of mathematical instruction for their future, noting a link between the activities completed in the workshops and problems encountered in real life ("They are useful for our future, even outside" [of prison]). 4 participants commented on the role of patience in facing problems ("I confronted my patience and myself by doing these exercises"). 4 participants commented on their perception of using time and mind well ("I liked to use my mind well."; I enjoyed pushing myself more and more into more difficult exercises and challenging myself.). Finally, 2 participants commented on their increasing self-esteem ("I found out that I am smarter than I thought").

The fifth workshop was the most highly ranked. The activity consisted of drawing Eulerian paths in graphs of increasing difficulty and keeping track of feasibility and starting points.

The participants were then asked to infer the general rule behind the specific instances. Looking at the QF, we observe how this workshop's opportunities for empowerment were a determinant of its success. In particular, one participant reported the following motivation for enjoying the fifth workshop the most: "Because now I know the street rule", referring to his having found the criterion for a graph to be Eulerian in his own words. Furthermore, we note a relation between experiential learning and empowerment ("I learnt to draw possible and impossible roads, like life"; "I liked knowing a little more about the road of my life").

Conclusion/Discussion

We presented an experience of mathematics education designed for young adults in a high-turnover prison context in Italy. The difference in linguistic backgrounds and the expected high turnover of participants have represented crucial challenges for designing a successful activity and, indeed, have strongly impacted how the workshops were conducted. Instructors' observations and participants' feedback suggest that, even in extreme conditions of low literacy and high turnover of participants, there is significant potential for mathematics education activities based on problem-solving to empower inmates. In particular, experiential learning activities mediate an essential interplay between mathematical and psychological empowerment. The comment, "I learnt to draw possible and impossible roads, like life" is symptomatic of this interplay. In drawing graphical patterns and identifying the rule behind them, the inmate appropriated a theorem. This is an indicator of mathematical empowerment. Psychological empowerment comes from exploiting mathematics to reflect upon roads that are not only graphical patterns but also signify real life. Further studies on mathematics education through experiential learning can help support its important role in including young adults in socially marginal contexts via mathematical empowerment.

Keywords: Equal access, experiential learning, problem solving, empowerment, informal mathematics education.

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Evaluating the effectiveness of inclusive models in empowering secondary education students

Konstantinos Zacharis & Stavroula Siatira

Introduction

Nowadays, inclusion is a priority for the democratization and effective operation of education systems in all countries. In modern classrooms, there may be students with Special Educational Needs and Disabilities (SEND) who are likely to benefit from services planned to support them by having different approaches to individual learning, separate teaching classrooms, and the systematic use of appropriate technology. Greek schools have largely adopted Inclusive Classes (ICs) and Parallel Support (PS) in order to address educational and social inequalities and ensure that all students have equal learning opportunities. ICs are designed to support students with SEND by specialist teachers who use different teaching methods, materials and assessments. PS practices ensure that students with SEND can benefit from a regular classroom environment while receiving the necessary support from specialized teachers. This research focuses on the school year 2023-2024 in Secondary Education Schools located in the Prefecture of Karditsa. Firstly, operating details and educational effectiveness of IC and PS practices will be presented by collecting and analyzing data in order to capture the knowledge gained after years of educational experience. Following this, the study suggests ways to better implement inclusion and advance regulatory issues in this direction. It highlights the necessity of utilizing technological affordances to achieve optimal educational settings that best meet each student's individual needs and to ensure all students with SEND have an equal opportunity to learn and succeed.

Following this, the study suggests ways to better implement inclusion and advance regulatory issues in this direction. It highlights the necessity of utilizing technological affordances to achieve optimal educational settings that best meet each student's individual needs and ensure all students with SEND have an equal opportunity to learn and succeed.

Theoretical Background

Inclusive Education (IE) is a primary human right and the foundation for a fair society without inequalities (Forlin, 2013). Achieving IE requires designing and implementing effective policies and actions (Moriña, 2019). European countries have secured equal educational rights but have not yet succeeded in constructing school systems that fully accomplish the ideals and intentions of inclusion (Haug, 2017). To meet the learning needs of students with SEND, a more flexible, friendly, and receptive educational structure can be created, which demands more individualized support (Thomas, 2021). This is achieved when children with and without disabilities participate and learn together in the same

classrooms (Peerzada et al., 2020). In Greece, IC is a supportive educational framework for students with SEND. These classes function both within mainstream classrooms and separately, promoting student inclusion in the overall system (Panagiotis, 2024). Research highlights that parental attitudes towards IE and the availability of inclusive practices/resources are crucial for successful implementation. The focus should shift from infrastructure settings and methods to individual student participation and engagement (Paseka & Schwab, 2019; Messiou, 2017). The PS model exemplifies this shift by providing targeted support within mainstream classrooms, prioritizing student participation and achievement in the general curriculum (Koutsoklenis & Papadimitriou, 2024).

Method

In the Greek Ministry of Education, the official Information System "MySchool" serves as a comprehensive platform managing school administration and providing valid sources for student data, including grades, attendance, and staff records. This research leverages data related to students with SEND (retrieved from MySchool) to analyze the effectiveness of IC and PS models. By collecting and analyzing quantitative information on the number of SEND students, the types of support offered, and class sizes within IC and PS models, the research aims to identify patterns and trends through visualization tools like graphs. These trends may reveal factors impacting the success of these inclusion models, such as the concentration of SEND students in specific schools or the distribution of various disability types across IC and PS settings. The ultimate goal of this research is to develop data-driven suggestions for improving the educational experience of SEND students within these inclusion models, especially in IC. This may involve recommendations for curriculum design that are more meaningful, challenging, and tailored to students' unique needs, as well as instructional techniques that empower them to actively participate in a common educational environment. These suggestions will be grounded in educational philosophy and practices promoting inclusive student learning.

Results/Outcomes

In the school year 2023-2024, there was an intensive effort to collect data about IC and PS at all schools of the Secondary Education Authority within the Karditsa Prefecture. For the first model, 14 public schools there were involved. The smallest number of students with SEND in a single school was ten and the largest was 42. The total number of students who benefited was 300. Among them, 262 were from High Schools (Gymnasiums), and 38 from Senior High Schools (Lyceums), representing about 2700 students. In the first case, that represented a percentage rate of 9.64%, and in the second, 9.84%. The average IC instruction was between 1.1 to 5.6 hours per student with SEND. For the PS model, data involved 15 public schools. The smallest number of students with SEND in a school was one (1) and the largest was five (5). The total number of students with SEND was 25, 19 of them were from High Schools (Gymnasiums) and 6 were from Senior High Schools

(Lyceums). In the first case, the percentage rate was 0,69%, and in the second, it was 1,55%. %. PS support hours ranged from 10 to 25 hours per student with SEND. So, the quantity and quality of support provided in IC and PS are key discussion topics for supporting students with SEND. The study interprets the data within that context.

Conclusion/Discussion

Effective inclusive practices in Secondary Education require regular, targeted support and adjustments to ensure that all students can actively participate in the learning process. ICs should ideally support students with SEND under equal conditions. However, having many students in an IC can make it difficult to achieve this. To ensure effective support, it's crucial to maintain a manageable class size within ICs, allowing for more individualized attention and targeted instruction for students with SEND. Technology offers exciting possibilities to enhance learning for all students. Consider creating an open-access digital library filled with accessible tutorials. These tutorials should cater to various learning styles, with options like videos, interactive activities and downloadable materials alongside text. In addition to the digital library, offering live online lessons specifically for students with SEND can provide further support. However, flexibility is the key. The research findings suggest that the PS model is being implemented as planned. However, this implementation alone doesn't determine its effectiveness. Similarly, for ICs, successful implementation isn't the sole measure of their efficacy. Redesigning the current IE models for implementation might be crucial to achieving this balance.

Keywords: inclusive education, individual and parallel support, special educational needs.

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Why should we talk about the Controversial past? An action-research with pre-service teachers

Alexandra Stavrianoudaki & Lampros Papadimas

Introduction

Inquiry-based learning (IBL) has been at the center of educational interest in recent years. It is a learning model with application prospects at all educational levels. The inquiry learning model is considered by many to belong to a broader "family of pedagogical practices." Inquiry, regarded as the ability to engage in scientific thinking and work (Barak & Shakhman, 2008), can be used in primary education as an introduction for students to scientific methods in general, and specifically to history, as it seems to better serve the development of historical thinking. Therefore, it is recognized by many researchers as a suitable instructional framework for the development of cognitive skills in general and historical thinking in particular (Barton & Levstik, 2007). It can be particularly useful in teaching controversial issues by using multimodal materials, examining different and conflicting sources, actively involving students, and limiting the dominant role of the teacher. In this research, the Occupation-Resistance-Civil War period in Greece has been selected as it is a historical framework in which divided and conflicting memory has been a predominant component. Future teachers should be able to offer a vetted alternative to the approaches that have been implemented over the years regarding this period and other controversial historical issues.

Theoretical Background

Controversial historical issues (CHI) are those about which many people argue without reaching an indisputable conclusion (Crick, 1998). According to Stradling, controversial issues divide societies, while significant groups within them support conflicting interpretations based on different values (e.g., topics on which there is no consensus, express conflict, and divide society since different groups produce different interpretations, explanations, and/or solutions) (Cotton, 2006; Hess, 2005, 2009). In a pedagogical approach, a controversial event is one in which students and teachers feel unprepared and uncomfortable addressing pedagogically, as its approach raises a set of questions unknown to their teaching-pedagogical reference model (e.g.). This research proposes an alternative model for preparing pre-service teachers to teach CHI using inquiry-based learning (IBL). IBL was chosen because it addresses the sensitivity that a teacher must have when approaching a conflict issue (Wasserman et al., 2008), and because it can give students the opportunity to construct historical knowledge based on their personal and group investigations (Ampartzaki, 2023) rather than the unilateral perspective of a textbook. IBL is a strategy based on the students' natural curiosity, organized around questioning, and driven by the students' attempts to interpret the world and the interactions that take place in it (Gagne, 1975). Through investigation, learners

construct their own concepts and ideas and link the knowledge gained to their personal experience (Bacon & Matthews, 2014).

Method

Action research has been selected as an appropriate method to understand teachers' thinking about their practices (McNiff et al., 1996). Specifically, we seek to produce research data about the change in pre-service teachers' attitudes, beliefs, and perceived self-efficacy in teaching CHI after their participation in a relevant laboratory course. We also aim to interpret their transformation in aspects like sharing ideas and teaching practices on relevant issues. Semi-structured interviews were used to investigate the initial and subsequent students' perceptions regarding collaborative approaches, conflict issues, and their teaching value, IBL collaborative approaches, and perceived self-efficacy to handle CHI. The researchers, serving as critical friends, take part in all phases of the research process. They also hold the role of instructors in CHI content and relevant teaching practices. More information about the seminars is mentioned in the following section. Through content analysis, three main thematic categories were created concerning (a) the enrichment of the students' historical knowledge, (b) the enhancement of their pedagogical arsenal, and (c) the establishment of motivations for integrating the theme of the conflictual past through investigative learning.

Results/Outcomes

The main research findings that emerged are that (a) the students enriched their historical knowledge regarding the concept of conflict issues and their didactics, the historical triad of Occupation-Resistance-Civil War, and the philosophical concerns regarding the uses and abuses of history. Additionally, (b) they familiarized themselves with strategies and learning tools that enhance the emergence of reliable historical conclusions by students. The students were also trained in source processing and the reproduction of enriched historical narratives concerning the "conflictual historical past." Among the findings are also modern teaching approaches that emerged from the projects through the processing of literary and artistic works, through symbolic mnemonic practices, and the didactic utilization of tools such as the historical head and standardized observation sheets (Percoco, 2001; 1998). Finally, beyond historical training and familiarization with modern pedagogical tools, it appears from the analysis of the interviews that (c) the students gained motivation not only to choose to include the conflictual past in their teaching content but also to approach it through the inquiry learning model. Students have mainly been motivated by the potential to humanize historical figures and communities, particularly those who have been marginalized or oppressed. They believe that diverse experiences and perspectives can develop in their future students a deeper appreciation for the struggles and contributions of different groups, promoting social cohesion. Another incentive mentioned is related to future teachers' professional development. Teaching the controversial past has been recognized by many participants as a challenge for themselves

since they will have the opportunity not only to refine their pedagogical approaches but also to confront their own biases.

Conclusion/Discussion

The fact that taking part in the program made participants think about a substantive/practical aspect of teaching CHI shows that participants have already gained a kind of maturity regarding their teaching profile. According to Lechner (2002), teachers often feel fear in addressing CHI because they are part of a society that is afraid of conflicts. The notion that this program makes participants think about teaching CHI without feeling a sense of fear probably shows that teachers' preparation concerning pedagogical and content issues is an important factor for a society to face any fear of reactions. After completing the research program, participants stated that, although there are still things they could learn, they now feel more ready to manage the teaching of controversial issues. The main reasons that explain the change in pre-service teachers' perceived self-efficacy in teaching CHI are related to the sense of freedom they felt to expand themes that are not always included in the school textbook, their experience with utilizing multiple sources, and their practical training in collaborative and student-centered approaches. Potentially, pre-service teachers' involvement in collaborative inquiry learning processes gave them a sense of how the natural desire for the discovery of new knowledge is mobilized (Hoepper, 2014). Hence, they feel prepared to engage their future students' interest in CHI and guide them to find their own learning paths. Therefore, we believe that this proposed program is suitable for preparing pre-service teachers to teach CHI.

Keywords: Controversial past, collaborative investigation

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Cultivating Diversity and Inclusion through a Learning Approach Combining Theatre of the Oppressed and Chess: A Case Study Research Paradigm

Alexandra Stavrianoudaki, Stavroula Kaldi & Katerina Pavlidou

Introduction

Diversity and inclusion are not only key areas in the current development of educational systems internationally, but they also represent a research field that continues to face many challenges (Campbell, 2019). One of these challenges is implementing diversity learning approaches that effectively prepare students for an increasingly culturally diverse world. Indeed, research shows that existing strategies have often proven ineffective in reducing discrimination and creating more inclusive educational environments (Dover et al., 2020).

Our study addresses this gap in knowledge and proposes a meaningful learning framework based on the "Theatre of the Oppressed". This type of applied drama method seems to have a positive impact on improving participants' competencies such as democratic attitudes and tolerance, as well as cooperative and collective work (Gallagher, 2015). It can also help students challenge their stereotypes by transferring experiences from the drama world and interpreting their individual and collective experiences through narratives.

The novelty of this study lies in its direct connection of the "Theatre of the Oppressed" with chess as a tool for inclusive education. Chess was selected because it simulates our world, consisting of different people, just as chess consists of different pieces, each required to maintain its own distinct role in the game. By integrating the "Theatre of the Oppressed" with chess philosophy, we aim to foster a deeper understanding of issues related to inclusion and exclusion (Leavy, 2015).

Theoretical Background:

The "Theatre of the Oppressed" is a collective "freedom" tool that fosters autonomous awareness in people who struggle together to research solutions aimed at changing the world (Katsaridou & Vio, 2014). The goal of the current study is to provide a meaningful learning approach that promotes diversity and inclusion.

Our intervention is based on the four stages of the "Theatre of the Oppressed" and also incorporates chess philosophy. Specifically, the first stage is "Knowing the body"; the second is "Making the body expressive"; the third is "Theatre as language"; and the fourth is "Theatre as discourse" (Boal, 1985).

The first two stages, which are preparatory and concern the work of participants with their own bodies, reinforce students to get familiarized with recognizing the chessboard as a stage in which they can interact like chess pieces. These stages can be seen as a step towards a better understanding of diversity's value within the framework of chess. The third stage focuses on the transition from passivity to action and it is divided into three stages,

which include different degrees of participation. Specifically, "Simultaneous Dramaturgy", "Image Theatre", and "Forum Theatre" (Katsaridou & Vio, 2014) have been utilized to motivate students to express themselves about their preferences and uniqueness. Their narratives have been organized in small poems in haiku form which constituted the basis for the last degree, the "Forum Theatre", where students intervened decisively in the dramatic action.

Method

The method applied was a case study research design. This approach allows for a 'rich description' of a framework that promotes diversity and inclusion, linking the 'Theatre of the Oppressed' with the chess. Qualitative research tools, such as unstructured interviews, researchers' notes, students' responses, and texts produced in the chess class, have been utilized to capture the richness (Walker, 1974) of students' beliefs. Data were analyzed using thematic analysis.

Participants were 21 primary education students aged between 6 and 12 years who attended the Chess after school club for eight months. "Theatre of the Oppressed" practices have been embedded in the club's curriculum.

The purpose of this study was to examine the effectiveness of an intervention that addresses diversity and inclusion directly through the context of chess, aiming to help students understand and express their views on these concepts.

The research questions are formulated as follows: How does transferring experiences from the world of drama and interpreting them through narratives inspired by the context of chess affect

a) students' understanding of complex social issues?

b) students' acceptance of their uniqueness and handling personal challenges?

Results/Outcomes

The results indicated that the implemented program provides a holistic educational experience, nurturing both the emotional and intellectual aspects of learning. Specifically, the data analysis yielded two main findings:

a) The "Theatre of the Oppressed" helps in understanding complex social issues, while chess trains the mind to navigate this understanding within a framework of strategic thinking. The data analysis showed that, just as theater actors present the experience of real or imagined events, in our program, students had the opportunity to capture and communicate the complexity of social issues affecting their lives. Students exhibited their understanding through scripts, in which they expressed their views on behalf of the chess pieces. The applied program highlighted also the importance of understanding and influencing the larger social context. Hence, participants had the opportunity to gain a better understanding of social activity and equality issues such as social inclusion, disability

issues, lifestyle problems, and conflicts between generations.

b) Participants in this combined program found themselves better equipped to embrace their uniqueness and handle personal challenges. The students put significant effort into portraying their chess characters, selecting props themselves, such as the "back-and-forth queen," the "running horse," and the "bishop who lost his way." Within this framework, students often referenced their own daily experiences and personal challenges. This allowed them to express their personal views, both in and out of character, prompting collaborative discussions on questions such as: "What can we do?", "Who are we, and where are we?" as well as creative individual reflections like: "How would my chess piece react?" and "How could my chess piece overcome this difficulty?"

Conclusion/Discussion

The findings support conclusions related to both "Theatre of the Oppressed" and chess in fostering a greater understanding of issues surrounding inclusion and exclusion (Leavy, 2015). First, the results suggest that innovative educational approaches—such as chess and the "Theatre of the Oppressed"—can engage students in meaningful discussions about inclusion and diversity. Previous research recognizes chess, with its strategic and problem-solving nature, as a tool that motivates children to become enthusiastic problem-solvers (Islam et al., 2021). Our research similarly indicates that chess can help students appreciate different perspectives on complex social issues. Furthermore, "Theatre of the Oppressed" has been shown to promote empathy (White et al., 2021) and enhance the understanding of multiple perspectives in ethical dilemmas (Lehtonen, 2015). Our research aligns with these findings, demonstrating that students' enactment and reaction to real-life scenarios—albeit inspired by chess philosophy—foster a deeper understanding of social issues.

Ultimately, this dual approach empowers students to articulate their views on inclusion and diversity in a creative and innovative manner. Similar to the literature, chess was found to empower students by helping them recognize the consequences of their actions through thoughtful, collaborative questioning in a controlled environment (Islam et al., 2021). Meanwhile, *"Theatre of the Oppressed"* provides a safe space for students to explore and challenge societal norms (Kapeti, 2022; Mavroudis & Bournelli, 2016).

Keywords: Diversity; Chess; Theatre of the Oppressed

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Sub Theme 12

Learner-Centric Pedagogical Approaches

Collaborative learning environments: Development of educational material in Geography of the 6th grade

Dimitrios Alekos & Stavroula Kaldi

Introduction

The research proposes a teaching approach based on inquiry-based learning, social constructivism, and collaborative learning. Specifically, it was implemented in a Year 6 class aiming to teach the unit of Europe from the national curriculum. The teaching approach was based on Jigsaw II and Problem-based learning methods with scaffolding techniques. The study demonstrates the effectiveness of the suggested approach, which promotes students' active participation, critical thinking, and the development of collaborative skills for future application in the class. Essential aspects of the study include the effectiveness of group work and the use of ICT in learning. In addition, it shows how the Jigsaw II method and PBL can be combined to provide a comprehensive understanding of this unit. It is also shown that the scaffolding technique is necessary to achieve a higher level of understanding. A general conclusion is that geography can be an exciting and useful subject for students if taught using modern methods. The suggested approach can contribute to the development of primary school students' critical thinking and collaboration skills, which are a prerequisite for future education.

Theoretical background

The teaching of Geography should adopt modern methods that encourage the active participation of students. The research focuses on the following methods:

1. Learning through discovery: Students take a leading role, exploring and understanding geographical knowledge with guidance. It promotes critical thinking, autonomy, and creativity (Bruner, 1982).

2. Social constructivism: Learning takes place through collaboration and interaction. Collaborative learning encourages sharing ideas, argumentation, and problem solving (Vygotsky, 1978).

3. Interdisciplinary approach: Geography is linked to other subjects, providing a comprehensive view of the world and an understanding of the multidimensional relationships between phenomena (Zivkovic et al., 2017).

4. Use of ICT: Access to a wealth of information, audiovisual material, and interactive applications make learning more attractive and effective (Fievez & Karssenti, 2013).

5. Combination of Jigsaw II and PBL: Jigsaw II and PBL (Problem Based Learning, Slavery's & Duffy's model, 1996), can be combined for an even more effective learning experience. Jigsaw II promotes collaboration and teamwork, while PBL focuses on problem solving. Combining them allows students to collaborate, investigate, share knowledge, and find

solutions. It also appears to increase student motivation and engagement, develop problem-solving, critical thinking, and communication skills, improve comprehension of material, and prepare students for the real world (Sangka, 2021).

Research methodology

The present study follows an action research approach (Feldman et al., 2018) conducted by a teacher in a Year 6 class to implement a co-operative teaching model in Geography (Zoukis, 2007). The research was conducted in four action cycles, with the teacher acting as a researcher and recording his observations. Data were collected using informal tests to assess students' prior knowledge and learning performance before, during, and after the intervention. Through participant observation, the teacher recorded students' progress during the lessons, focusing on individual learning behavior, organization of space and information, and task completion. Student interviews were used to record their views on collaborative group teaching. Finally, student projects were used to assess their understanding of the unit's content and their ability to collaborate and implement group projects. Data analysis was done using statistical analysis, where the SPSS 21 statistical package was used to analyze the data from the informal tests, and thematic content analysis was used to analyze the data from the interviews and the researcher's diary. Importantly, the action-research method also allowed the teacher to act as a researcher and modify the teaching program according to the implementation process.

Results/Outcomes

The study adopted a mixed research design, combining quantitative and qualitative data collection methods. Non-parametric statistical tests (Friedman, Wilcoxon), pre-and post-tests (pre-post tests), student interviews, and student self-assessment (self-evaluation) were used on the axes that were also examined by the teacher-researcher. The results from the non-parametric tests showed statistically significant improvement in the individual development of the students' learning behavior in all the axes examined (active participation, interest, organization of space/information, successful completion of a task). In particular, adopting these methods led to an increase in learning performance, with stability after the end of the project. Group cooperative teaching and the PBL method encouraged active student participation, increased collaboration, and developed student motivation. Students showed an increased interest in the course, probably due to the student-centered approach to the subject matter and because they had active participation and defined goals to achieve. In addition, the scaffolding technique helped students to develop organizational skills, possibly due to the clear instructions, structured activities, and teacher support. The pre-post tests showed a statistically significant improvement in students' performance on the knowledge tests.

Furthermore, the analysis of the interviews showed that most students expressed a positive opinion of the collaborative group method, emphasizing the pleasure of working together, the exchange of ideas, and the relaxed atmosphere. The conclusion from the

analyses reveals that the collaborative group teaching program appeared to have a positive effect on the individual development of students' learning behavior, improving both their learning performance and their perception of the learning process. Furthermore, students' critical thinking was increased since the PBL method pushed students to manage data, evaluate, and then document them. Their self-confidence was cultivated, mainly through active participation and taking responsibility. Finally, they adapted to contemporary needs as they worked within a framework of collaborative team-teaching models, which can be a powerful tool for developing life skills and preparing them for the challenges of the 21st century.

Conclusion/Discussion

The research focuses on the effectiveness that the combined application of the group collaborative jigsaw and problem-based learning (PBL) methods appeared to have in teaching the 6th grade geography course, with the use of scaffolding. It also focuses on the many important benefits of implementing action research for education and teachers. Through the self-reflective investigation of teachers' work, social and educational practices are improved, leading to a better understanding of them.

The main conclusions, therefore, identify that the combination of the PBL model and the Jigsaw approach teamwork technique can enhance the level of development of interaction between students while working in groups (Slavin, 1990). This also shows that if individuals' active participation in a methodical and exploratory learning process is promoted, it can bring about opportunities for reflection and formative evaluation. Students can focus on problem-solving collaboratively, thus creating the appropriate learning conditions for developing communication and collaborative skills that comply with the demands of the 21st century (Johnson & Johnson, 1999; Soetarno et al., 2019). It is evident that teaching methods, such as PBL, could increase participants' active participation and interest in the classroom, as observed in other research, and improve learning performance. Teacher-centered teaching would be unable to bring about all the **aforementioned** positive developments in teaching and students' learning behavior (Spyratou & Chalkia, 2007). In addition to student development, applying action and study research has improved the researcher's skills as a teacher, which will follow him in all his subsequent practice. (Katsarou and Tsafos, 2003).

Keywords: Geography, primary school, Jigsaw II, Problem-based learning (PBL), Action research.

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The role and characteristics of an effective special education leader. Perceptions of special education teachers of the prefecture of Attica

Maria Barmparousi

Introduction

A special school provides educational services only for pupils diagnosed with disabilities or special educational needs (Law 3699/2008, article 1). The administrative bodies of the school are the principal, the deputy principal, and the teachers' association. The first is responsible for the harmonious and proper functioning of the school. In order to achieve this, he must coordinate the teaching staff and ensure that all the rules, orders of the service, and, in general, everything that has been unanimously decided in the pedagogical associations are followed with reverence and respect. (Law 1566/1985). The principal's administrative functions are planning (setting objectives and actions to achieve them), organisation (allocation of tasks), direction (coordination of educational, pedagogical, and administrative activity), and control (evaluation of operation and implementation of objectives, creation of changes) (Brinia, 2008; Koontz & O'Donnell, 1983; Saitis, 2001; Short, Greerl & Merlvin, 1994). The above administrative functions are necessary to achieve the school's objectives. None of them can be bypassed, all of them are useful and essential and cannot be implemented if there is no leader (Bourantas, 2002). The study aimed to explore and record the role and characteristics of an effective special education principle based on the perceptions of special education teachers in the prefecture of Attica.

Theoretical Background

According to Parylo and Zepeda (2014), the profile of an effective manager consists of:

a) personal characteristics (experience, experience, leadership, decision-making, school supervision, and resource management skills), b) skills (knowledge of the curriculum, providing the right directions, assessment, focusing on student success, and using technology and the internet), c) interpersonal skills (the ability to organize, coordinate, work with a team, encourage others, take responsibility, communicate and build relationships with external agencies and the community) and d) perceptual characteristics. These include a love of education, a passion for children and teamwork, and the energy and motivation of others. Also included in this category are knowledge, skills, and talent, as well as using them to improve the school and, finally, acceptance by students, teachers, and the community. An effective principal also creates the school vision by thinking about the characteristics of the school and the children in it and ensures that the school provides safety and security for pupils. This means that it protects them from both physical and psychological injury by preventing verbal and physical abuse. In addition, it is aware of the progress of the school's pupils to make changes if pupils'

performance is stagnant and shows confidence in teachers by supporting the choices and actions they want to carry out and by sharing duties and roles. (Nicolaou & Anastasiou, 2023).

Method

A total of 140 teachers working in special schools in Attica participated in the study. Of these, 91 were female and 49 were male. In addition, 87 of them worked in secondary special education, 53 in primary special education, while 59 of them were permanent, and the remaining 81 were substitutes. Finally, the participants were teachers of different specialties with different chronological ages and experiences. An electronic questionnaire was developed as a measurement tool, and its reliability and validity were assessed. The questionnaire was shared via Facebook, and all responses were given on a Likert scale. The study's research data were entered and analyzed using the SPSS statistical package and version 28. Descriptive were used to analyze the demographic data and variables related to the characteristics and role of an effective special school principal. To investigate the potential relationship between demographics and participants' views on the characteristics and role of an effective special education principal, a t-test was applied to independent samples to assess gender, educational level, and work relationship and one-way ANOVA for age, years of experience, education, and specialization. The significance level was set at $p \leq 0.05$.

Results/Outcomes

The results are presented in order of preference according to participants' responses. To begin with, an effective special school principal must be ethical, supportive, responsible, optimistic and positive, fair and objective, democratic, flexible and adaptable, dynamic, resistant to pressure, communicative, honest, innovative, philanthropic, humble, and stable. Neutral attitudes were expressed on whether to be strict. The school principal must also have skills and abilities. The most important is to have communication skills. These are followed by administrative skills, critical situation and conflict management skills, leadership and problem-solving skills, collaboration skills, organizational and decision-making skills, perceptive skills, the ability to understand the needs of others, empathy, and the skills to use new technology. The role of the school principal is multifaceted. More specifically, the role of an effective special education principal is to coordinate, communicate, and collaborate with students, create a positive environment, communicate and collaborate harmoniously with all teachers, communicate and collaborate with the teachers' association, allocate responsibilities democratically and based on teachers' abilities, communicate and collaborate with external agencies, support teachers, encourage initiative, communicate and collaborate with parents, communicate and collaborate with teachers, support teachers, encourage teachers to take initiative, and communicate and collaborate with parents. Neutral attitudes were expressed towards the principal's role in monitoring and evaluating pupils' progress, and negative attitudes

towards evaluating teachers' progress. Finally, gender, age, seniority, studies, specialization, educational level, and work relationship influence teachers' perceptions of some factors of the characteristics, skills-competencies, and role of the principal.

Conclusion/Discussion

The literature agrees with some of the results presented above. In particular, a principal should be flexible and adaptive, democratic, communicative, fair, honest, and innovative (Beiramipur & Echresh, 2022; Nicolaou & Anastasiou, 2023; Schulte, Slate & Onwuegbuzie, 2010). He should also have the following skills and competencies: organizational skills and abilities (Beiramipur & Echresh, 2022; Schulte et al., 2010), management, use of technology, decision making (Beiramipur & Echresh, 2022; Parylo & Zepeda, 2014), conflict management, problem-solving, perception, (Beiramipur & Echresh, 2022), collaboration, communication, coaching (Parylo & Zepeda, 2014), understanding and compassion for others (Gülbahar, 2016). The role of an effective principal is to communicate and collaborate with parents, teachers, and students, to monitor and evaluate students' progress, to collaborate with the municipality, external agencies, and educational institutions, to support and encourage students and teachers, to motivate and contribute to teachers' professional development, to allocate roles and tasks and create a safe, friendly and quiet learning environment and climate (Beiramipur & Echresh, 2023; Farah, 2013; Leithwood, Harris & Hopkins, 2020; Nikolaou & Anastasiou, 2023; Schulte et al., 2010). Overall, to be effective, a special school principal must have many different characteristics, skills, and abilities, and their role is multifaceted and demanding.

Keywords: special education, special education leader.

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Many Hands Make a Light Work to Introduce English in Early Preschool Education: The Collaboration of EFL and Preschool Teachers in Greek Kindergartens

Maria Polymerou, Vasilios Grammatikopoulos & Isaak Papadopoulos

Introduction

Four years ago, English was integrated into the preschool curriculum in Greece, marking a significant shift in early childhood education. This initiative involves a collaborative approach where EFL (English as a Foreign Language) teachers and preschool educators collaborate to deliver Content and Language Integrated Learning (CLIL) activities. The primary goal is to seamlessly integrate English language learning into the existing thematic curriculum of Greek kindergartens, fostering an enriched language learning environment from an early age. The success of this program hinges on the effective collaboration between EFL teachers, who bring specialized language teaching methodologies, and preschool educators, who deeply understand early childhood development and education. Together, they create an immersive and interdisciplinary learning experience for children, blending language acquisition with math, science, and art subjects. This study aimed to evaluate the dynamics of this collaborative teaching model by conducting interviews and observations in Greek kindergartens. A total of 50 EFL teachers and 50 preschool educators participated, providing insights into the strengths and challenges of their partnership. Key focus areas included enhancing language exposure, integrating CLIL activities with the preschool curriculum, and the overall impact on children's learning and development. The findings highlight both the potential benefits and the areas needing improvement to optimize the effectiveness of this innovative educational approach.

Theoretical Background

Several key theoretical frameworks underpin the integration of English into early childhood education in Greece. Central to this initiative is Vygotsky's sociocultural theory (Vygotsky, 1978), which emphasizes the importance of social interaction in cognitive development. According to Vygotsky, learning is a socially mediated process, and language plays a crucial role in developing higher cognitive functions. The collaborative teaching model, involving both EFL and preschool educators, aligns with this theory by creating a rich linguistic environment where children can engage in meaningful social interactions in English. Another foundational theory is Bruner's constructivist theory (Bruner, 1966), which posits that learners construct new knowledge based on their existing cognitive structures. Bruner's emphasis on scaffolding is particularly relevant, as EFL teachers and preschool educators support each other's efforts to provide appropriate linguistic and cognitive challenges, gradually building on the child's current level of understanding.

Additionally, the Content and Language Integrated Learning (CLIL) approach draws from Cummins' theories on language acquisition, particularly the distinction between Basic Interpersonal Communicative Skills (BICS) and Cognitive Academic Language Proficiency (CALP). CLIL aims to develop BICS and CALP by integrating language learning with content instruction, thereby promoting deeper cognitive processing and language proficiency (Coyle et al., 2010). Furthermore, early bilingual education is supported by research indicating that young children are particularly adept at acquiring multiple languages. Studies have shown that early exposure to a second language can enhance cognitive flexibility, problem-solving skills, and cultural awareness. The collaborative model in Greek kindergartens, therefore, not only facilitates language learning but also contributes to holistic cognitive and social development.

Method

This study employed a qualitative research design, utilizing interviews and observations to explore the collaborative efforts of EFL teachers and preschool educators in Greek kindergartens. A purposive sample of one hundred participants, consisting of 50 EFL teachers and 50 preschool educators, was selected, ensuring representation from various regions and educational settings.

Data Collection:

Interviews: Semi-structured interviews were conducted with EFL teachers and preschool educators to gain in-depth insights into their experiences, perceptions, and challenges related to the collaborative teaching model. Each interview lasted approximately 30-45 minutes and was audio-recorded for accuracy.

Observations: Classroom observations were conducted to examine the interactions between EFL teachers, preschool educators, and students during CLIL activities. Observations focused on the implementation of language learning strategies, the integration of English into the preschool curriculum, and the dynamics of teacher collaboration.

Data Analysis: Thematic analysis was used to identify and analyze patterns within the data. Interviews were transcribed verbatim, and observation notes were systematically coded. Themes were derived inductively, reflecting the key strengths and challenges of the collaborative teaching model. This mixed-methods approach provided a comprehensive understanding of the effectiveness and areas for improvement in the integration of English in Greek preschools.

Results/Outcomes

The study revealed several key outcomes regarding the collaboration between EFL teachers and preschool educators in Greek kindergartens, highlighting the initiative's strengths and challenges.

Strengths

Enhanced Language Exposure and Immersion: Observations showed that the presence of both EFL and preschool educators provided children with continuous exposure to English, effectively integrating language learning into daily activities. Children demonstrated significant improvements in vocabulary and comprehension, often using English phrases during playtime and structured activities. Interviews with teachers indicated that children adapted quickly to hearing and using English in various contexts. One EFL teacher noted, "The children pick up phrases naturally during playtime and structured activities."

Interdisciplinary Learning: Observations revealed that CLIL activities successfully merged language learning with other subjects such as math, science, and art, fostering a holistic educational approach. During interviews, educators expressed satisfaction with this integrated method, noting that it made learning more engaging and meaningful. A preschool educator mentioned, "Combining subjects keeps the children interested and helps them see the connections between different areas of knowledge."

Shared Expertise and Resources: EFL teachers brought specialized language teaching techniques, while preschool educators contributed their knowledge of early childhood education and developmental psychology. Both groups of teachers highlighted the benefits of mutual learning in interviews. An EFL teacher remarked, "I have learned so much about managing young children and making lessons more age-appropriate." At the same time, a preschool educator appreciated new strategies for integrating language learning into daily activities.

Challenges

Communication Barriers: Observations indicated that differences in training and terminology occasionally led to misunderstandings between EFL teachers and preschool educators. Some teachers reported challenges in communication during interviews. One EFL teacher stated, "We sometimes have different approaches and terminologies, which can lead to confusion."

Curriculum Integration Issues: Observations showed that aligning EFL activities with the preschool curriculum posed difficulties, especially when there was a lack of clear guidelines or resources. Teachers expressed frustration over the integration challenges during interviews. An EFL teacher mentioned, "It is hard to fit our activities into the existing themes without more structured guidance."

Resource and Time Constraints: Limited time and resources often hindered the effective planning and implementation of collaborative activities, as noted in observations. Both groups cited resource constraints as a major issue during interviews. One EFL teacher noted, "We often lack the materials we need, and finding time to plan together is difficult."

Professional Development Needs: According to observations, there was a clear need for additional training in CLIL methodologies and collaboration strategies. Teachers highlighted the necessity for ongoing professional development during interviews. An EFL teacher stated, "We need more training on CLIL and collaborative techniques." At the same time, a preschool educator suggested, "Joint workshops would help us better understand each other's methods and improve our collaboration."

Conclusion/Discussion

The integration of English into the preschool curriculum in Greece, facilitated by the collaborative efforts of EFL teachers and preschool educators, has demonstrated significant potential benefits and notable challenges. The strengths identified in the study highlight the value of this approach in enhancing language exposure and immersion, promoting interdisciplinary learning, and leveraging the shared expertise of both groups of educators. The consistent exposure to English within a familiar and supportive learning environment has resulted in noticeable improvements in children's language skills, while the holistic educational approach has kept students engaged and fostered meaningful connections between different subject areas. However, the study also identified several challenges that need to be addressed to optimize the effectiveness of this initiative. Communication barriers stemming from differences in training and terminology can lead to misunderstandings and require the establishment of clearer communication channels. Additionally, curriculum integration issues highlight the need for more structured guidelines and resources to effectively align EFL activities with existing preschool themes. Resource and time constraints further complicate the planning and implementation of collaborative activities, emphasizing the necessity for additional support and materials. Furthermore, the findings underscore the importance of ongoing professional development. Joint training sessions and workshops focused on CLIL methodologies and collaborative techniques could enhance the effectiveness of the partnership between EFL teachers and preschool educators. In conclusion, while the collaborative model for introducing English in Greek preschools shows promise, addressing these challenges through targeted interventions and support systems is essential. By doing so, this innovative educational approach can be refined and expanded, ultimately benefiting the young learners it aims to serve.

State of the Art

This research significantly advances the field of early childhood language education by exploring the collaborative integration of English in Greek preschools through CLIL methodologies. Previous studies, such as those by Bialystok (2001) and Garcia (2009), have highlighted early bilingual education's cognitive and cultural benefits, indicating that young children are particularly adept at acquiring multiple languages. Building on these findings, this study provides empirical data on the implementation of a collaborative teaching model where EFL teachers and preschool educators work together to integrate English seamlessly into the preschool curriculum. It offers new insights into the dynamics of such collaborations, the strengths and challenges faced, and the overall impact on children's language development. This research not only reinforces the theoretical underpinnings of early bilingual education and CLIL but also addresses practical aspects, thereby filling a gap in the existing literature and paving the way for further innovations in early language learning practices.

Keywords: early language learning, preschool education, CLIL, foreign language, Greece.

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Let Me Write My Own Way: Designing, Implementing and Evaluating a Pedagogical Intervention on Authentic Writing in Early Childhood Education

Isaak Papadopoulos, Smaragda Papadopoulou & Maria-Eleni Bourogianni

Introduction

Early childhood is a critical period for developing foundational literacy skills that pave the way for future academic success (Lonigan, Schatschneider, & Westberg, 2008). Emergent literacy, which includes phonological awareness, print awareness, alphabet knowledge, vocabulary, and emergent writing, plays a crucial role in children's reading and writing proficiency. The present study introduces a pilot intervention to enhance these emergent literacy skills in children aged 3 to 4 through authentic written language activities. This intervention was implemented over six months in Larissa with a treatment group of 20 children, focusing on engaging them in meaningful and contextually relevant literacy activities. Unlike traditional methods that often isolate literacy skills from real-life applications, this intervention emphasized experiential learning and authentic writing experiences. A control group of 23 children followed the standard early childhood education curriculum, providing a comparative basis to evaluate the intervention's effectiveness. By embedding literacy activities in everyday contexts, the program aimed to make learning more engaging and effective, fostering a deeper understanding and appreciation of written language among young children.

Theoretical Background

The theoretical foundation of this study is rooted in the principles of emergent literacy and sociocultural theory. Emergent literacy posits that children begin developing literacy skills long before they enter formal schooling through interactions with their environment and the people around them (Clay, 2001; Sulzby & Teale, 1991; Justice et al., 2005; Sénéchal, Lefevre, Smith-Chant, & Colton, 2001). Key components of emergent literacy include phonological awareness, morphological awareness, print awareness, alphabet knowledge, vocabulary, and emergent writing (Olson, 2002). These components are interrelated and develop simultaneously as children engage with written language meaningfully. As proposed by Vygotsky, sociocultural theory emphasizes the importance of social interactions and cultural tools in learning (Vygotsky, 1978). According to this theory, children learn best through guided participation in culturally relevant activities, where they can observe, imitate, and practice new skills within their social context. The intervention designed for this study draws on these theoretical perspectives by incorporating authentic writing activities that reflect real-life uses of literacy. By engaging children in meaningful and contextually relevant tasks, the intervention aims to enhance their emergent literacy skills through natural and interactive learning experiences (Justice

et al., 2020), thereby bridging the gap between theory and practice in early childhood literacy education (Hall, 2016).

Method

The intervention was implemented in a treatment group of 20 early childhood children in Larissa over a period of six months. The control group, consisting of 23 children, continued with the regular early childhood education program. The intervention involved a series of carefully designed activities targeting specific emergent literacy skills. Phonological awareness was reinforced through games and rhythmic exercises focusing on sound recognition and letter-sound associations. Print awareness and vocabulary development was promoted by engaging children with labels on common objects and through shared reading and writing experiences. Children were encouraged to experiment with writing in various contexts to foster emergent writing skills, such as writing letters, making lists, and creating stories. Alphabet knowledge was supported through multimodal activities, including using visual, auditory, and kinesthetic learning modalities to enhance letter recognition and recall. The program's effectiveness was evaluated using a combination of the Logometro tool (Mouzaki, et al., 2017), the Preschool Word and Print Awareness Assessment (Justice & Ezell, 2001), and observations recorded in the educator's diary. These tools comprehensively assessed the children's progress in the targeted literacy skills.

This research contributes to emergent literacy by demonstrating the efficacy of integrating authentic writing activities into early childhood education. It advances the understanding of how experiential, contextually relevant literacy activities can enhance emergent literacy skills in young children. The study underscores the importance of meaningful engagement and social interaction in developing literacy skills, aligning with modern educational theories and practices (Justice et al., 2020; Vygotsky, 1978).

Previous research has established that emergent literacy skills such as phonological awareness, print awareness, alphabet knowledge, vocabulary, and emergent writing develop before formal schooling through interactions with the environment and social context (Clay, 2001; Sulzby & Teale, 1991; Justice et al., 2005). Vygotsky (1978) and subsequent studies have emphasized the role of social interactions and cultural tools in learning, suggesting that children learn best through guided participation in culturally relevant activities. Research by Justice et al. (2020) has highlighted the benefits of integrating literacy activities into everyday contexts, showing that children develop better when they can relate learning to their real-world experiences. Hall (2016) and Olson (2002) have indicated that experiential and multimodal learning approaches can significantly enhance literacy development, particularly when they involve active, hands-on participation from learners.

While previous studies have highlighted the importance of contextual and experiential learning, this research specifically focuses on authentic writing activities as a means to enhance emergent literacy. This is relatively underexplored in the domain of early

childhood education. The intervention's comprehensive approach—targeting phonological awareness, print awareness, alphabet knowledge, vocabulary, and emergent writing simultaneously—demonstrates a holistic method of literacy education, providing a new model for early childhood programs. Using a control group following the standard curriculum provides a robust comparative analysis, illustrating the distinct advantages of the intervention over traditional methods. The study offers empirical evidence through pre and post-assessments (Logometro tool, Preschool Word and Print Awareness Assessment) and qualitative observations, providing concrete data on the effectiveness of authentic writing activities in early childhood literacy (Justice & Ezell, 2001; Mouzaki et al., 2017). By creating a collaborative classroom environment, the research emphasizes the social aspect of learning, showing how peer interaction and communication can enhance literacy development. This aligns with but also extends sociocultural theories by providing practical implementation strategies.

In conclusion, this research breaks new ground by empirically validating the effectiveness of authentic, contextually relevant writing activities in early childhood education. It provides a comprehensive, learner-centric approach that aligns with modern educational theories while offering practical insights and data that can inform future literacy programs. The study's findings contribute to the growing body of evidence supporting experiential, social, and personalized learning models, paving the way for innovative practices in the field of emergent literacy.

Results/Outcomes

The outcomes of the intervention were measured through pre and post-assessments using the Logometro tool, the Preschool Word and Print Awareness Assessment, and qualitative observations from the educator's diary. The treatment group demonstrated significant improvements in all targeted areas of emergent literacy compared to the control group. Specifically, children in the treatment group showed enhanced phonological awareness, as evidenced by their ability to recognize and produce rhyming words and initial sounds. Print awareness was also improved, with children demonstrating a better understanding of the functions of print and its presence in their environment. Alphabet knowledge gains were observed through increased letter recognition and recall. Vocabulary development was supported by the children's expanded ability to name and describe common objects and concepts encountered during the activities. Emergent writing skills were particularly notable, with children exhibiting increased confidence and creativity in their writing attempts. The qualitative data from the educator's diary highlighted that the authentic writing activities fostered a collaborative and communicative classroom environment where children were motivated to participate and engage with each other. Overall, the intervention's success underscores the importance of integrating authentic, contextually relevant literacy activities in early childhood education to support the holistic development of emergent literacy skills.

Conclusion/Discussion

The pilot intervention aimed at enhancing emergent literacy skills in children aged 3 to 4 years through authentic written language activities has demonstrated promising results. Over six months, the treatment group showed significant improvements in phonological awareness, print awareness, alphabet knowledge, vocabulary, and emergent writing skills compared to the control group. These findings suggest that integrating authentic, contextually relevant literacy activities into early childhood education can effectively support the development of foundational literacy skills. Using real-life, meaningful tasks engaged children in active learning, fostering cognitive and social development. The intervention not only improved individual literacy outcomes but also created a collaborative learning environment where children communicated and interacted more effectively. These results align with the theoretical underpinnings of emergent literacy and sociocultural learning, highlighting the importance of social context and meaningful engagement in early literacy development. The study's positive outcomes underscore the need for early childhood educators to incorporate authentic literacy experiences into their curricula. Future research should explore the long-term effects of such interventions and their scalability across diverse educational settings. Ultimately, this study contributes to the growing body of evidence that supports the use of experiential, authentic learning activities in fostering early literacy skills and preparing children for future academic success.

Keywords: authentic writing, emergent literacy, print awareness, vocabulary, phonological awareness, emergent writing.

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POSTERS

Gender Stereotypes and Mathematics Comprehension: A Systematic Literature Review

Maria Papaioannou, Eleni Zenakou, Ekaterini Antonopoulou & George Tsitsas

Introduction:

The field of mathematics education has long been concerned about the impact of gender stereotypes on people's attitudes toward math and their career choices. It is crucial to recognize how social and cultural factors, as well as personal experiences and expectations, influence students' perceptions and self-esteem in learning mathematics. Additionally, it is important to reflect on the differences in the approaches to learning challenges between genders and how gender impacts performance and learning in mathematics. This review will explore how stereotypes affect the understanding of mathematics and present research demonstrating how gender-based discrimination and expectations are developed and reinforced in math education. First, we will thoroughly examine the concept of gender and its interpretation across various scientific disciplines. We will then rigorously scrutinize stereotypes, particularly within the realm of education, studying their formation, perpetuation, and impact on students. Furthermore, we will closely assess the pivotal role of schools and educators in shaping and perpetuating these stereotypes. Once we establish the criteria for selecting surveys, we will conduct an exhaustive analysis of the most significant studies. This analysis will aim to emphatically underscore gender disparities at both secondary and tertiary educational levels, as well as the influential roles of school and family environments.

Theoretical Background:

In 20th-century scientific research, the concept of "gender" was a major focus, leading to various interpretations from different scientific perspectives, including biological, psychological, sociological, and anthropological viewpoints. This research resulted in a distinction between biological sex and gender, although this distinction is somewhat conventional, as there are overlaps and variations (Hammarström & Annandale, 2012).

The sociological perspective on female and male gender involves social classifications characterized by cultural and psychological criteria, which ascribe distinct and immutable traits to each sex in terms of their skills and abilities. Furthermore, these classifications give rise to expected behaviors that align with gender (Oakley, 1972). Consequently, the concept of gender extends beyond its purely biological framework to encompass social and cultural dimensions. Gender is shaped by social requirements and the subsequent process of socialization within a given social context, resulting in acquired characteristics.

Stereotypes (Kawakami et al., 2002) are universal processes used to recognize members of particular social groups. These stereotypes are superficial and lead to specific characteristics and expected behaviors without a structured evaluation process. It is

noteworthy that stereotypes are formed and sustained through socialization, which occurs within families, educational settings, mass media, and general social interactions. The perpetuation of stereotypes is largely attributed to the accumulation of information, stemming from the tendency for our initial perceptions of a person or behavior to endure, even when they may evolve over time.

Method

It's clear that this literature review cannot cover all the research on gender stereotypes in mathematics education. Nevertheless, a comprehensive analysis of key publications in this field was attempted. Initially, a broad search was conducted in electronic databases such as Google Scholar, ERIC, and PsycINFO using search terms like "sex and math," "gender and mathematics," "stereotypes and math," "parents and math," and "math teachers' stereotypes."

Due to the large number of results, a first selection of articles was made based on the journals in which they were published. Articles containing empirical research on the subject were also preferred. In a second stage, further selection was made based on citations for the studies and book chapters. The years of publication for this search spanned from the 1970s to the present, so an attempt was made to select studies from different time periods to show any evolution in the effects of gender stereotypes on mathematics. A total of 28 articles met the aforementioned criteria.

Results/Outcomes

The absence of discernible disparities between genders in mathematical performance (Henschel et al., 2023) is a significant finding. However, negative attitudes toward the subject can hinder individuals from realizing their full potential and may discourage girls from pursuing academic disciplines and subsequent careers in mathematics. It is worth noting that attitudes toward mathematics begin to form as early as preschool, where young children start internalizing gender-based stereotypes associated with mathematics. This, in turn, contributes to lower self-esteem among girls compared to boys in the subject (Beilock et al., 2010).

Equally compelling are the findings concerning prevalent stereotypes in higher education. Research (Nosek et al., 2002) suggests that students with a strong gender identity demonstrate more positive attitudes toward mathematics, higher self-confidence in their mathematical abilities, and superior performance. Conversely, the research indicates that women with a strong female identity tend to display less interest in math and harbor lower confidence in their mathematical abilities.

Additionally, teachers' beliefs play a key role, aligning with the model of Autonomous Learning Behavior (Fennema et al., 1990), which offers insights into gender discrepancies in mathematics and hypothesizes a link between teachers' beliefs and gender differences. Similarly, researchers (Eccles et al., 1990) argue that individuals' apprehension and anxiety

surrounding mathematics, beyond their actual mathematical prowess, can pose formidable barriers to attaining high mathematical proficiency, particularly in educational contexts.

In summary, evidence suggests that parents hold stereotypical beliefs about the mathematical abilities of boys and girls, despite no discernible difference in their actual performance. Parents tend to perceive boys as more capable and interested in mathematics compared to girls (Tiedemann, 2000). They also tend to attribute boys' success in mathematics to innate talent and girls' success to effort (Yee & Eccles, 1988). These biased views can significantly impact children's attitudes, expectations, and ultimately their performance in mathematics (Jacobs, 1991).

Conclusion/Discussion

Children's attitudes are often shaped by their social, family, and school environments. Interactions with parents and teachers significantly influence them. For instance, parents' and teachers' expectations regarding children's success in math may be influenced by gender stereotypes (Eccles et al., 1990; Tiedemann, 2000, 2002).

Research demonstrates that teacher beliefs significantly influence student performance and teaching approaches. Some teachers hold the mistaken belief that boys are more talented in mathematics and perceive girls as harder working. As a result, they tend to reward girls with higher scores based on the assumption that they put in more effort (Jussim & Eccles, 1992; Keller, 2001).

Recent research (Henschel et al., 2023) has provided new insights into the issue, demonstrating that traditional stereotypes about teachers are no longer linked to students' performance in mathematics. It can be deduced that teachers' beliefs reflect societal perceptions, and the reinforcement of stereotypes can impact students' learning. However, it is crucial to refrain from attributing differences in gender performance solely to teachers. Instead, attention should be given to the influence of their beliefs on the educational process.

Additional research is imperative to draw clear conclusions. Overlooked factors, such as stereotypical references in school textbooks and peer groups, significantly impact the formation of stereotypes. Furthermore, it is essential to investigate the mechanisms of adult behavior and its impact on childhood attitudes and achievements. Understanding these behaviors will help minimize negative influences and reinforce positive influences on children's mathematical attitudes.

Keywords: Gender stereotypes, gender, perceptions, Mathematics.

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Peripheral Action Research Towards Community and Art Equity

Sahar Fayek Khalil

Introduction

Life's hopeful thinking often draws positive energy from people's actions. This positivity adds value to our lives and leads to humanitarian efforts to prevent unjust wars and unnecessary human suffering. By accumulating experiences and helping others, we foster fresh feelings that give life value and enhance our humanitarian qualities. Art conveys deep feelings and concepts, whether they are beautiful and bright or dark. The evaluation of art is influenced by the cultural context of hope, despair, sarcasm, wonder, adoration, or hatred among the audience. Everything artists create is connected to humanity and the circumstances surrounding it. For this reason, arts education can communicate beyond language, symbols, and time, addressing our common humanity and connecting communities, intellects, and experiences that seek to express and communicate human feelings. In its broadest forms, art is an exploration of the human condition, a product of human experience that ultimately leads to utilitarianism, intellectual communication, and beyond.

The term "humanization," as mentioned by Nada bint Hamza bin Abdo Khayyat (2020), is a contemporary philosophical term used in various intellectual contexts, carrying a set of cognitive and cultural implications and connotations. This term is defined in the philosophical dictionary of Lalande as a measured human centrality that stems from the knowledge of humankind, focusing on the appraisal and assessment of humanity while excluding anything that would alienate us from our true nature.

Theoretical Background

Supporting our heartfelt and engaged actions in arts education programs, especially for women and children facing economic challenges and in times of disaster, is essential. Children and art are equivalents that create balanced generations capable of peacefully living and advocating for themselves. This research paper represents three major themes that serve as pillars of arts education through projects involving the children of Rafah, Ukraine, Sudan, and the forgotten children affected by war and trauma.

The Noor Project from Heart to Heart is affiliated with INSEA's regional and international committees and is being implemented by Professor Sahar Khalil at an international level in partnership with several countries. It is being implemented in Egypt, having commenced in January 2024, with many parties participating in its execution. This initiative is being carried out at Cairo Modern International School, involving students in the second secondary, third, and second middle school grades.

The concept of light is significant in many cultures and religions. For example, the phoenix that is born from the ashes, the role of light in European civilization, and in Christianity, where worshipers light candles in churches. Additionally, the Islamic faith celebrates the arrival of Ramadan by hanging and lighting lights and lanterns. We traced the historical origin of lanterns back to ancient Egypt.

Method

The concept of light plays a vital role in various cultures and religions. For instance, the phoenix that rises from the ashes, the role of light in European civilization, and in Christianity, where worshipers light candles in churches. Furthermore, the Islamic faith celebrates Ramadan by hanging and lighting lights and lanterns. We traced the historical origin of lanterns back to ancient Egypt. This theoretical framework will be applied to suggest activities during Ramadan, a month of forgiveness, comparing the outcomes of students in levels 10, 11, and 12 at European and Egyptian schools.

Results/Outcomes

The fascinating results of the two schools will compare findings and artwork displays, leading to the distribution of products to refugee committees in both countries as a reflection of sympathy and empathy for the plight of lost children's souls.

Conclusion/Discussion

Humanitarian efforts inspired by art are a testament to the innate desire for compassion that resides within us all. Whether through visual art, music, or literature, the power of creativity can bring people together to address critical issues.

One notable example of art-inspired humanitarian efforts is the "Postcard Light Project," recently launched by the International Network for Schools. This project saw students from across INSEA, Africa, and the Middle East collaborate to create politically themed postcards that were later sent to communities of lost souls. The project was a powerful expression of passionate young voices using art to inspire empathy and advocacy for pressing issues.

Similarly, in the U.S., musical productions like Hamilton and Dear Evan Hansen have tackled issues such as immigration, mental health, and the power of community. The personal connections audiences have formed with these stories have inspired people to act, donating time and money to foundations that address these issues.

In conclusion, art serves not only as a means of personal expression but also as a medium for social activism. By capturing the essence of the human experience, art has the power to move and inspire individuals to make a difference in the world. As we continue to navigate the complexities of our society, artistic expression remains an essential tool for fostering empathy, creating understanding, and inspiring change.

References such as Building Common Ground: Ecological Art Practices and Human-Nonhuman Knowledges and Technical Notes on Human Rights Education further underscore the significance of education in promoting sustainable development, social justice, and human rights. These resources provide additional theoretical underpinnings to support the findings of this research article and can inform future research in related areas. Overall, this study highlights the critical role of education and digital technology in preserving cultural heritage, promoting linguistic diversity, and enhancing learning outcomes in a rapidly changing world.

As follows: You can see a sample of the produced cards, which will be printed soon or sent virtually.

Keywords: Humanization, Community Art healing.

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An educational intervention for promoting the inclusion of Roma children in Greece

Anna Tsolaki, Anastasia Kontostoli & George Fragoulis

Introduction: Roma people are approximately 10-12 million in Europe, located mainly in Southern and Eastern Europe. They do not have a historic homeland in Europe, and they live in extreme poverty. They often face discrimination, racial prejudice and exclusion and endure political marginalization and residential isolation (Filakovska et al, 2022; Popoviciu & Tileagă, 2022; Kymlicka 2012, p. 293). Everywhere Roma people resided, they were persecuted and faced with discrimination (McGarry, 2010; Widmann, 2007). European and international organizations highlight that Roma people still live in unacceptable conditions and face social exclusion in all significant domains, i.e. education, housing, health and employment (European Parliament, 2022; Rutigliano, 2020).

Regarding the Roma population in Greece, there are only estimations about their number. According to the latest official data provided by the General Secretariat for Social Solidarity and Combating Poverty (2022), Roma people in Greece were 117.495. However, according to other sources, their actual number is much higher (European Commission against Racism and Intolerance - ECRI, 2022). Greek Roma are citizens with statutory civil rights and most of them embrace the same religion as that of the dominant group. Their situation in Greece is similar to the other European countries, as they experience socio-economic and educational marginalization and exclusion in all crucial domains of social life (ECRI, 2022). Stereotypical perceptions about the Roma are long standing and are reproduced through official policies and everyday practice of the dominant groups, including the school community (Parthenis & Fragoulis, 2016).

Theoretical Background: The education and inclusion of the "others" has been a concern of Western education systems since the 1960s. Relative policies and practices developed over time often have broad, sometimes vague content, encompassing different theoretical approaches. In any case, as Parekh points out (1997), all educational systems that aim to develop students' competences- such as curiosity, reflection, critical thinking, self-criticism and respect, must adopt a multicultural orientation, regardless of whether students from minority groups are present. Intercultural education was introduced as a response to the growing complexities of multicultural western societies. However, similar challenges of definition arise within the discourse on intercultural education, which does not refer to a specific and universally accepted model, but rather to a wide range of theoretical analyses regarding the principles that should govern learning in multicultural schools (Govaris, 2011; Portera, 2008). In this presentation, the education of all children is understood in light of the dynamic nature of individual cultures and their respective identities. As Portera argues (2008), in the perspective of intercultural education the

"others" are no longer seen as a 'problem' or 'risk', but as 'resources', recognizing the potential for enrichment and personal and social growth that arises from the convergence of people from different ethnic, cultural, and religious backgrounds.

Method

An educational intervention was designed and implemented at a primary school in the city of Volos (Greece) during the 2023-2024 school year. The intervention was carried out as part of the voluntary initiatives of the Department of Primary Education at the University of Thessaly, aimed at supporting the education and inclusion of children from vulnerable groups. The school was selected because the majority of students were Roma children who were at risk of dropping out and had high rates of irregular school attendance. The intervention took place three days per week. The focus was on the 5th and 6th grades, as these classes had the highest rates of absenteeism and the lowest levels of reading and math literacy, according to the school principal and class teachers. The objectives of the intervention were decided after discussions with the involved class teachers and the principal, who highlighted the major challenges they were facing.

Thus, the intervention aimed to achieve three goals: to increase students' interest in the learning process, to enhance the sense of inclusion for Roma children, and, consequently, to improve regular attendance and keep students in school until the end of the school year. To meet these objectives, we designed and implemented activities guided by the principles of intercultural education (see indicatively Liddicoat, 2004). Thus, the activities were designed to value Roma culture and language by giving Roma children the opportunity to use the Romani language in the school environment and express their thoughts, imaginations, fears, and dreams. Indicatively, children participated in an activity called "What Makes Us Happy?" where they wrote about and expressed their feelings. They also used the classroom's interactive whiteboard to explore space and design their own imaginary planets. We also aimed to help them connect their school experience to long-term goals in their professional and personal lives. Moreover, in a socio-pedagogical approach, students participated in a program focused on learning their rights as part of the Social and Political Education curriculum. Finally, Roma children were supported in their daily schoolwork, particularly in subjects such as Greek language and mathematics. In some cases, playful and experiential learning methods were used, such as board games.

Results/Outcomes

The results of the intervention were assessed at the end of the school year, based on two factors: the attendance rates of the Roma children, and the opinions of the school teachers and principal regarding the improvement in student achievement, increased interest in the learning process, and greater participation in school activities. Regarding the first factor, Roma students gradually began attending school more regularly. A key indicator of the intervention's success was that students continued attending even until the final days of the school year, which is not common for Roma children. Moreover, according to the

teachers, Roma children engaged in the learning process with more interest and enthusiasm, making significant progress. Their sense of belonging also seemed to improved, as they even expressed a desire to participate in the end-of-year celebration. Notably, the children eagerly awaited us at the school entrance every day to welcome us and frequently asked questions, seeking further knowledge during lessons. These results are particularly important because, prior to our intervention, the children were often absent, and their academic performance—considering their age (12–15 years old)—was below average. Characteristically, children started to learn the names of the months during the intervention. Therefore, the involved teachers and the principal believed that it was a highly successful educational intervention and requested that it continue in the following years.

Conclusion/Discussion

The education and inclusion of students from vulnerable groups, such as Roma children, should be a priority in all educational systems from a social justice perspective. The intervention demonstrated that it is possible to enhance the sense of belonging and inclusiveness for Roma children, provided they are treated as active participants in a school environment that respects and values their culture and language.

However, the progress in student achievement observed by the teachers cannot be considered fully adequate, especially within a competitive education system that demands specific skills and knowledge for academic success. It is also important to note that the actual impact of the intervention could not be measured with accuracy, as we relied solely on the opinions of the teachers and the principal at the beginning and the end of the intervention. In any case, combating stereotypes and prejudices, alongside recognizing the individual value of each student, remains a critical step toward improving the current situation. The responsiveness of the children to the interest and respect shown by the intervention team and the school itself reveals the potential for meaningful change. It should be noted, however, that while voluntary and individual initiatives are welcome and can provide significant help at the micro level, they are not sufficient to bring about structural changes.

Keywords: Intercultural education; Inclusion; Roma education; Educational Practices.

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