ALMA MATER EUROPAEA UNIVERSITY

INTERNATIONAL SCIENTIFIC CONFERENCE
IT'S ABOUT PEOPLE 2024–2025

EDUCATION AND MENTAL HEALTH
Peer-Reviewed Proceedings Book

Editors: Sebastjan Kristovič, Polonca Serrano

MARIBOR, 2025

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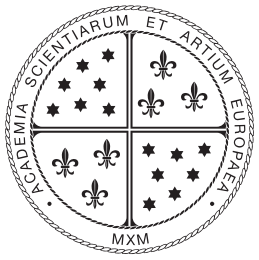

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IT'S ABOUT PEOPLE

2024: In Service of Sustainability and Dignity
2025: Social and Technological Resilience for Health and Sustainable Development

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EDITORIAL INTRODUCTION

In today's modern world—marked by uncertainty, rapid social changes, digital overload, and deepening mental distress—the connection between education and mental health is becoming increasingly vital. Education is no longer merely a process of acquiring knowledge, but above all a process of shaping the human being—his or her inner maturity, self-reflection, responsibility, and ability to maintain dignity in a world that often dehumanises. It is precisely within this intersection that the mission of pedagogical, psychological, and therapeutic practices unfolds, seeking answers to the question: How do we educate and raise a person so that they remain human—capable of compassion, meaning, and inner strength?

The section *Education and Mental Health*, implemented for many years under the umbrella of our international scientific conference »It's About People«, opens up these key questions from an interdisciplinary and deeply humanistic perspective. The contributions in this peer-reviewed proceedings book illuminate the complex dynamics of the modern human being—from psychotherapeutic approaches to youth in times of nihilism and lost identity, to the importance of sleep for students' mental health, and the exploration of family and partnership relations. Central to these interests are questions of empathy, attention (»mindfulness«), digital competences, artificial intelligence, and their impact on the human experience of learning, creativity, and existence.

The contributions of authors come from diverse professional backgrounds and cultural contexts, enriching the understanding of the human being and their development in contemporary society. The proceedings book offers research insights into a field where pedagogy, psychology, art, technology, and philosophy of human existence converge. It responds to the challenges posed by the era of digital transformation, artificial intelligence, and the simultaneous loss of inner peace and authentic relationships. It is therefore all the more important that research and pedagogical work do not lose their ethical and human dimension—the one that restores a sense of meaning, connection, and integrity to the individual.

Let this volume be an expression of respect for all those who contribute to developing their disciplines and society through their research, pedagogical, and therapeutic work. Gratitude goes to all the authors, reviewers, organisers, and co-workers who made it possible for this section to represent a meaningful contribution to the development of science and disciplines about people.

In a time when technological advancement often overhauls ethical reflection, the studies and contributions gathered in this volume remind us that the core of every educational and therapeutic process should be the human being. His or her dignity, capacity for self-transcendence, creativity, and empathy are the fundamental conditions for a future that is not only technologically advanced butabove all, humane.

May this volume encourage us to discover the one that surpasses knowledge—meaning – in every learning, educational, and therapeutic process.

Prof. Dr. Sebastjan Kristovič
Vice-Rector for Education
Head of the Section, Education and Mental Health
Alma Mater Europaea University

2024

1.08 Objavljeni znanstveni prispevek na konferenci
Published scientific conference contribution

EFFECTIVE PSYCHOTHERAPEUTIC TREATMENT OF YOUNG PEOPLE IN TIMES OF NIHILISM, LACK OF MEANING, AND IDENTITY CONFUSION

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ABSTRACT

Despite the growing number of mental health professionals, we have an increasing number of young people experiencing various mental health problems. There is a growing nihilism, existential emptiness, apathy, and an increasingly aimless search for identity among young people. Finding oneself is a difficult process, because one's personality can only be shaped through one's own experiences and initial successes in achieving one's goals. Recently, however, self-discovery has been accompanied by an increasing emphasis on self-improvement, the main aim of which is to maintain and acquire a youthful body. Thus, we are discovering less and less about our personality and more and more about self-improvement, which is contributing to the rise of various psychological disorders. The fact is that we can only develop our individuality through opposition and that man never knows himself by observation alone. In order to know who you are, you have to do your duty, which is inevitably linked to meaning, because it is precisely by solving problems that life has meaning. The aim of this article is to try to apply the findings of several well-known experts in the field of mental health to the psychotherapeutic treatment of young people in crisis and existential emptiness.

Keywords: *effective help, young people, nihilism, existential crisis, identity crisis*

1 INTRODUCTION

Nihilism and existential emptiness are nowadays one of the main causes of personal complications among young people and related psychosomatic and social pathologies (Galimberti 2008; Kristovič 2013, 626). Many studies report the experience of personal distress in the form of crises of meaning and identity crises (Frankl 2014; Galimberti 2008; Perko 1998, 2-6; Perko 2008, 2-6, 2011, 374, 2013; Perko and Čotar Konrad 2018, 252; Perko and Dolenc 2020, 147; Verhaeghe 2016, 38-41). Kristovič (2013, 626) states that the consequences of lack of meaning can be numerous: divorce, various addictions, depression, egoism, loneliness, poor upbringing, emotional numbness, melancholy, apathy, various mental distresses. One feels empty inside, dissatisfied with oneself and with one's life (ibid.). Frankl (2014) calls the phenomenon where one has an increasing sense of the meaninglessness of life an existential vacuum or existential crisis, while Galimberti (2008) speaks of nihilism. The existential vacuum, i.e. the lack of meaning or nihilism, often occurs in a wealthy society where everything is enough or in a society where there is severe deprivation and unemployment (Frankl 2014; Galimberti 2009; Perko 1998, 5). It manifests itself as an increasing sense of meaninglessness, boredom and apathy (Kristovič 2013, 626; Perko 1998, 5). This is not a medical condition, but may simply be an indicator that something is wrong in a person's life, especially in those who have a wrong life orientation and are more likely to make the wrong life choices (Kristovič, 2013, 626). Such widespread phenomena as alcoholism and juvenile delinquency would be incomprehensible if they did not have at their core a sense of meaninglessness in life or nihilism, and further emphasises that today's youth crisis is different from previous crises, as the individual is faced with the absence of meaning in his or her life (Kristovič 2013, 628).

Galimberti (2019, 27) further argues that today, in this uncertain period, it is difficult for young people to arrive at their own personality, which is shaped by their own experiences and initial successes in achieving their goals. Identity confusion in young people is part of the normal developmental process of personality formation (Erikson 2015, 66-67), and the formation of personality is primarily a social process, influenced by the individual's judgement of the opinions that others are supposed to have of him or her. It is precisely the total focus and orientation towards oneself that increasingly distances both young and old from answering the question: "Who am I?" and "How do I find myself?" The author further argues that this creates the belief that the world is a reflection of one's own desires, which is the foundation of the modern, widespread narcissistic culture, where individuals are only interested in their own needs and desires, which must be immediately fulfilled. Lots of preoccupation with the self and little interest in the outside world. Individuals who grow up in such a world, where they know only the satisfaction of their own desires and needs, and who are incapable of delaying gratification, accepting suffering, renunciation and sacrifice, are prime candidates for addictions of all kinds (Žorž 1997, 55, 2013, 147-153).

Galimbert (2019, 27) further argues that children's personal development and independence are today prevented, by the common practice of parents, disrespecting the child's basic right to become different from what they want or by setting too high role models and expectations for their children. We can also fully agree with Galimberti (2019, 27) about our inability to accept the spiritual dimension of suffering, even though our reality also includes suffering. Galimberti (2019, 28-29) goes on to speak of a modern phenomenon - therapeutic practice - that ascribes a morbid character to everything, everything becomes the object of (psycho)therapy and everything can be healed. The author believes that it is a mistake to think that in this therapeutic way we are fostering a culture of self-actualisation, rather we are supporting self-limitation, where the aim is to unify individuals in their way of thinking and feeling (ibid.).

The impetus for this article came from working with clients in individual psychotherapeutic practice and from working in and monitoring therapeutic groups within the framework of the social andragogical method (SAM). More and more young people, at the peak of their physical strength, are seeking help, lost in feelings of utter meaninglessness, apathy and boredom. They live aimlessly from day to day, usually completely merged with their mothers, their most frequent questions being "How can I find myself in today's society?". or "How do I know who I really am?" and "What do I want?" I notice that psychotherapy alone is not always effective enough, because they don't have enough resources to activate themselves in the outside world. Often a second

order solution approach is very effective, where it is imperative to focus and make changes on the current solutions, i.e. on what is being used to address the problem rather than the problem itself (Watzlawick, Weakland and Fish, 2016). It has been very successful in treating a variety of addictions and is the basis for the treatment in SAM program and in communes - which are so far the only real answer to more severe addictions (De Andrade et al. 2019; De Leon and Unterrainer 2020; De Leon and Wexler 2009; Dingle et al. 2019) All of these programmes do not focus on abstinence for the individual (establishing abstinence is a prerequisite for entering a treatment programme), but rather offer a wide range of different contents to keep the individual engaged and fulfilled. In this way, the individual does not even think about alcohol, drugs, etc. anymore. Similarly, I have seen that second-order solutions bring surprisingly good results and changes in young people who are facing an existential vacuum, have no goals, are completely apathetic, overly dependent on modern technology, etc. Such young people can benefit and be helped much more by all-round activation (running, reading, regular employment, mountaineering - contact with nature, etc., journaling, regular morning exercise, etc.) than by simply focusing (psychotherapy) on their problems. The latter is certainly a good and necessary support for a second-order solution. The aim of this article is to argue for such an approach through the findings and insights of well-known experts in the field of mental health.

2 METHODS

For the research we used Qualitative Comparative Analysis (QCA). Primarily a qualitative analysis method is used to analyze qualities. QCA is a research methodology used in analyzing multiple cases in complex situations. This methodology enables in explaining the change that occurs in some cases and why it doesn't happen in others. QCA should not be confused with qualitative analysis methods or constant comparison method which are forms of qualitative analysis. QCA was developed in 1987s by Charles Ragin, a social scientist. Qualitative comparative analysis is a set-based theory that seeks to explain the relationship between causal conditions and outcomes through the concept of sets and their relations. It is used in comparative research and when using case-study research methods. The QCA analysts interprets the data qualitatively whilst also looking at causality between the variables. It is truly a mixed-methods approach to research and is best suited to small- to medium-N case-study projects with between 3 and 250 cases. Qualitative comparative analysis approach draws strength from both quantitative and qualitative research methods. It combines the mathematical approaches used in quantitative research with the inductive and comparative case-based techniques employed in qualitative research.

The QCA is therefore, a multiple case study approach - in a smaller N-intermediate research project - that collects insights on the different cases and captures their complexity, also producing a certain level of generalization (Ragin 1987; Rihoux and Ragin, 2008). The QCA techniques allow a conjunctural causation between the observed cases. This means that different constellations of factors can lead to the same result. Most often, it is a combination of randomly relevant conditions that generates the result (Ragin 1987; Rihoux and Ragin, 2008). In devising this technique, Ragin's (1987) intention was to develop an „original synthetic strategy" as a middle ground between case-oriented (or qualitative) and variable (or quantitative) approaches (Rihoux and De Meur, 2009)

3 RESULTS AND DISCUSSION

3.1 Identity development in the relational pathologies of modern times

Several authors (Erikson 2015, 66; Fromm 1987, 11; Žorž 2013, 27) argue that our individuality can only be developed through opposition. Fromm (1987, 11) argues that the process of resisting authority, of disobedience, is in fact a condition for becoming self-aware and self-determined, and is also the first step towards freedom. By resisting and resisting, teenagers finally separate and individuate themselves from their parents (Fromm 1987, 11; Verhaeghe 2016, 18-19). Perhaps it would not be a bad thing for school counsellors to understand this, too, because it is mainly the unproblematic 'good girls' who are overlooked, who do not resist or oppose anything. It is often these 'hard-working girls' who are most in need of professional help (Žorž, 1997, 120). However,

the concepts of modern education described below seem to produce more and more hard-working and conformist individuals who do not know who they are, what they want, cannot find meaning, are apathetic and bored (Verhaeghe 2016, 166-168).

Whereas at the beginning of the 20th century excessive rigidity prevailed, today we are witnessing the opposite (Žorž 2013, 22-23; Verhaeghe 2016, 163-164). We are witnessing permissiveness, social phenomenon of "perfect mothers", with often absent fathers (Winterhoff 2009, 17), Perko 2017; Žorž 2007, 23; Verhaeghe 2016, 169). But in this way, with their possessiveness and hyperprotectiveness, they inculcate in the child a completely distorted idea of the world and of people (Winterhoff 2009, 34; Žorž 2013, 23-24, 1997). They deprive the child of a healthy growing up (with the impossibility of experiencing all of the above), and do not allow him or her to become independent, to oppose, to detach, to accept responsibility (Žorž 2013, 23). Challenging danger, renunciation, a clear knowledge of limits, and also facing disappointments, injustices and misunderstanding are an integral part of growing up (Žorž 2013, 24). At this point, it is imperative that the father - the bridge to the outside world - takes on a central role, among other things, by making it easier to cope and not intervene unnecessarily when the child feels injustice, disappointment or is exposed to danger (Hafner and Ihan 2014; 368).

Winterhoff (2009, 91-125) points out and discusses three main relationship disorders of modern times: (I) Partnership - parents consider the child as a partner and thus assign the child a role that the child cannot match. (II) Projections - parents project their own desires onto the child, the child is the measure of how good the parents are and of how loved they (the parents) feel. Children become narcissistic extensions of their parents, which can often lead to narcissistic pathology; (III) Symbiosis - between parents and children the boundaries are completely blurred, there is a complete fusion when parents merge their psyche with the child's. Often there is a complete objectification of the child. The child, as a "part" of the parent, is of course not to blame for anything and as an adult cannot (does not have to) accept responsibility.

All this being said, it is difficult for a child to pass, in terms of object relations theory, the phase of separation and individualisation, both in the first phase (from the mother) and in puberty (from peers). With domineering mothers and absent fathers who are incapable of setting any boundaries for the child, it becomes increasingly difficult for the child to identify with a same-sex partner in the phase between the ages of four and six, and to resolve the Oedipus complex in a favourable way, thus internalising the default moral requirements, norms and ideals (Benedik 2019; Mcwilliams 2017, 63-70, Musek 1988, 114; Praper 1995, 68, 1999, 96-98). This is a prerequisite for an individual to become a morally responsible person who has a formed conscience, takes responsibility (Perko 2017; Zupančič 2011). Otherwise, seen in the light of the theory of psychosexual development, he suffers from character pathology - he is incapable of moral judgement, his conscience is not seared (ibid.) - and above all, he does not accept any responsibility but always passes it on to other people, the environment, etc. (Peck 1991, 26). Clinicians today are thus observing and pointing to an increasing number of personality disorders and a decreasing number of neuroses (Perko 2017; Winterhoff 2009: Zupančič 2011). It is thus not surprising that in therapeutic practices I increasingly meet adults who, at the age of 30 (and even later), are still completely fused with their mothers, incapable of a constructive partnership, without purpose and meaning, in a complete identity crisis, and completely incapable of accepting any kind of responsibility for their condition.

3.2 What does it mean to work on ourself?

All too often, "working on ourself" is equated with talking and making recovery plans (Galimberti 2019, 28-29; Rugelj 2008, 110). However, in this way, we seem to be moving further away from (or at least not closer to) the goal of "knowing myself", of seeing "who I am". Clinical experience in my work with addicts and people in existential vacuum in SAM and a diverse body of literature (Fromm 1987; Hafner and Ihan 2014; Perko 2011; Peterson 2018; Rugelj 2008; Verhaeghe 2016; Žorž 2007), clearly show that people only begin to know themselves when they have sufficiently activated themselves. Usually, when they are involved in some sufficiently hard and strenuous work, which gives them the ability/capacity to free themselves, stand on their own feet, gain meaning and some basic satisfaction (Rugelj 2008, 110). They start to self-actualise, which can later lead to self-fulfilment, but the reverse is of course not possible (Frankl 2014, 52-53, 2005, 115). Frankl

(2014, 53) also argues that self-fulfilment is not one's original intention, but is primarily an effect of the fulfilment of meaning. The more one strives for self-actualisation, the further one moves away from it. The author is convinced that self-fulfilment can only be achieved through a commitment to a meaningful personal task. Similarly, Peterson (2018, 106-108) claims that psychologists too often ask the wrong questions, namely: "Why is someone bad? By the natural law of entropy, we know that you don't have to do anything to be bad, to make a thing go towards destruction. It happens by itself. The author argues that the right question to ask is: "What do those who are good do?" Because being good means that we have to do something and that we do it right (ibid.).

Mikuž-Kos (2022) also believes that something is not right, because despite the increasing number of professionals (psychologists, psychotherapists, social workers, social educators, etc.) on the other hand, the number of people with mental health problems is growing every year. Most people have capacities (within us) that enable us to be better (Flajs and Možina 2022; 72 Mikuš Kos 2022). They just need to be activated. This is best achieved by providing opportunities for education, socialising with peers, leisure activities, leisure interests, sporting activities, etc. (ibid.). This applies to children, young people and adults alike. We do quite the opposite, labelling and diagnosing (Mikuš-Kos 2022; Verhaeghe 2016,196).

Recently, self-improvement has been increasingly emphasised alongside self-discovery (Verhaeghe 2016, 82). The author points out that not long ago it was fashionable to search for the self, to discover the true self, the authentic self, which is almost impossible to do at home, one has to go to India, Nepal, at least, or, in the absence of resources, at least use mind-expanding substances. Today, however, the main goal has become to maintain and acquire a youthful body - be beautiful and attractive forever young, if gyms are not enough, there is Botox and cosmetic surgery (ibid.). We are thus discovering less and less about our personality and more and more about self-improvement, which the author links to the huge increase in psychological disorders, from self-harm, eating disorders, depression to the personality disorders that are so common and so characteristic today.

3.3 But what is required and what do we need to do to know who we are and to find ourselves?

One never knows oneself by observation alone (Rugelj 2008, 95). In order to know who you are, you have to do your duty (ibid.). Duty is nothing else than what your daily and occasional situation requires of you (ibid.). This in turn is inevitably linked to meaning (Frankl 2014, 52; Rugelj 2008, 95-98). People in distress often mistakenly believe that they will first passively find some meaning and then activate themselves (ibid.). Peck (1991, 12) argues that life has meaning precisely because of problem solving. Today, most people do not seem to understand this any more. When we solve problems, we grow spiritually and mentally (ibid.). In life, however, we avoid problems if we can, and so we lose our sense of being and stagnate (ibid.) It seems that after a few years of such stagnation, we don't even want to know who we are anymore!

Furthermore, it is good to bear in mind that man is not made for inactivity, he is driven to transform the world, not the other way around (Fromm 1987, 22). The author further argues that every individual has the capacity to direct his will towards a goal and to persevere in doing so - to sustain the effort until it is achieved. He can be said to be active and potent. In so far as, through weakness, incompetence, inability to delay gratification, low frustration tolerance, inability to suffer legitimately, lack of meaning, etc., such individuals, today, most often become depressed, quickly turn to alcohol, marijuana, become promiscuous, etc. (Galimberti 2009; Kristovič, 2013; Perko 1998, 2013). Fromm (1987, 22) sees the solution to the problem in joining a group that has power and identifying with it. To become part of those who act (ibid.). Groups with a healthy core, with acting individuals, undoubtedly have this power.

3.4 Discipline, order and rules, and the acceptance of freedom and responsibility as tools to know who we are and to find ourselves

The concept of discipline, order and rules is very important for people in need, and there is so much resistance to it today (Perko 1998, 2017, 2022a; Rugelj 2008;). However, it is often discipline, order and rules that are the key to solving the problems of people who come to us for help (Perko 2011, 2013, 2022b; Rugelj 2008;).The concept of discipline, order and rules is a key to solving the problems of people in need. For example, Peterson (2018, 143) argues that if you want to order

the world, you must first have a tidy and orderly room, and Peck (1991, 11), who states that a little discipline solves a few problems, a lot of discipline solves all problems. The latter proves to be very true time and time again in clinical practice in the context of communes and SAM. Thus, we can further fully agree with Peck (1991, 12) that order, discipline and rules lead us to the only sustainable way of life, where we are able to delay gratification, distribute suffering and enjoyment by doing the things that are tiring and difficult first, which in turn makes us happy. Eldrege (2021, 87) believes that even a boy must be aware that life is hard. For until he, as a man, can come to grips with the fact that life is hard, he is constantly chasing after the wrong things. So he spends all his energy trying to make life comfortable, pleasant, which is not the way a man should spend his life (ibid.).

In the search for ourself, we must also necessarily touch upon the relationship to freedom and responsibility. Frankl (2014, 82) states that to be human is to be responsible, because only in this way can you also be free. Moreover, freedom without responsibility cannot exist (Frankl 2014, 65; Cigoj 2022). Today, it seems that we are less and less aware of this, and that young people (and increasingly older people too) only want to be free. Cigoj (2022, 23) states that freedom without responsibility is an untenable state, full of violence (against oneself, others, nature or things) chaos and collapse. Responsibility brings us closer to the truth and allows us to act more correctly and to change ourselves and reality. Freedom offers the potential to act, to change, and responsibility ensures that this is objectively best done (well, beautifully, qualitatively and justly) (ibid.).

Žorž (2013, 67) argues that a person can freely choose only among the options of which he or she is aware, which is only a few percent of our agency (but more than enough, and for many far too much) and argues that awareness is a precondition for human freedom. The essence of human freedom is to choose between the possibilities offered by one›s environment and to create new possibilities oneself. Freedom is also about taking responsibility for one›s choices. The author goes on to argue that we are not completely free and that our choices are not independent of our environment. By taking responsibility, we can expand our consciousness, become aware of many things that were previously unconscious and thus have a wider range of free choices (ibid.). Above all, responsibility enables us to solve problems, to solve the everyday tasks that life throws at us on the way to self-knowledge. We can only solve a problem/task if we take responsibility, i.e. if we say to ourselves: «This is my problem» (Peck 1991, 24). The author further argues that if we do not take responsibility for our problems, we are, above all, running away from freedom. It seems that in today's society we have fewer and fewer individuals who are able to take responsibility, to confront the problem, to endure legitimate suffering and ultimately to find an appropriate solution. As has already been said, this is the only sustainable way of life, a way that brings satisfaction, happiness, mental health (Peck 1991, 14). A further problem is that it is virtually impossible to help those who are unwilling to take responsibility for their own healing (Hafner and Ihan 2014, 26-27). It is not difficult to take the idea in the direction that, as a consequence, there are nowadays more and more few mentally stable, healthy individuals, and it should not surprise us that, despite the growing number of professionals, there are more and more mental health problems.

3.5 Finding ourself and general activation in a group with a healthy core

We see, then, that on the path of self-knowledge it is absolutely necessary to take responsibility, which requires discipline (the postponement of gratification, which must be inculcated in the child by the parents, but is much more difficult later on), which makes it possible to endure legitimate (justified) suffering, at the end of which a "reward" awaits us. It is only by accepting responsibility and discipline that we do not run away from the freedom of choice in decision-making, which is particularly pronounced in cases where the decisions are painful and unpleasant (Peck 1991, 32). In this way, we can better understand why the therapeutic process, especially if we want to know who we are and to find ourselves, requires much more than classical psychotherapy, which is largely focused on talk.

Ihan and Hafner (2014, 26-30) believe that effective personality therapy should help the patient to acquire new skills and habits and at the same time develop his/her psychophysical capacities to grow into a more stable, coherent, active and satisfied person. They also believe that just changing your mind will not be enough. The authors state that even small changes (starting to run regularly) require effort and are associated with pain, which few people can consolidate to the point where

it becomes a lasting habit and need without a 'coach' and involvement in a group. Of course, this is even more difficult with major changes! Above all, the therapist must be the guarantee that all the pain, sacrifices and efforts are meaningful, which is best ensured by his/her example and a group with a healthy core (Hafner and Ihan 2017; Perko 2011, 2013; Rugelj 2008).

Hafner and Ihan (2014, 39) suggest that it is good that at some point the proverbial medical wariness of interfering in the lives of their patients stops and that the doctor clearly states what he or she thinks about the patient's problems and where he or she sees the way to a solution, especially if he or she has the knowledge, skills, etc. It would certainly be worth thinking about this in the field of psychotherapy too. Especially in the light of what Flajs and Možina (2022, 91) state, that the therapist encourages the client to try out new things outside the sessions, by working together to design tasks that help the client to continue to learn about himself and to change his patterns of thinking, feeling and behaving. The authors further state that therapy will hardly be successful if the client is not willing to actively work on him/herself and make changes in everyday life. It is also a fact that the client is the protagonist, the motor and the actor of therapeutic change and if he/she manages to activate his/her abilities, resources and strengths in his/her everyday life to make the changes he/she wants, this contributes to the effect of the therapy as much as 87 % of the success (Flajs and Možina 2022, 84).

Given these facts, it is expected that the effectiveness and outcome of psychotherapeutic treatment of young people in existential vacuum and identity crisis, will be much better if they are properly activated through running, reading, hiking, journaling, regular employment, regular morning exercise, etc.

4 CONCLUSION

We can conclude that, however we develop our thinking and draw on more recent findings, not much has changed, at least in the last few decades (and probably before). Whenever we think of a person finding himself, knowing who he is and working on himself, we can see that it is mainly those who do the tasks of their life who succeed. These are (Jung, 2021; Erikson 2015, Hafner and Ihan, 2014): to separate from parents, to contribute to the community, to cultivate a social life, to have children, to find meaning and, finally, to die. Today, this seems outdated, but that does not mean it is not relevant. In clinical practice, it is quite evident that it is precisely those individuals who do not perform these tasks who have difficulties in knowing and finding themselves. They refer to total and infinite freedom, which in the (not so) long run brings depression, anxiety, various addictions, and, above all, existential emptiness, hopelessness, apathy, and helplessness. Given that the client influences the therapy through the quality of his/her participation and that most of the changes occur between psychotherapy sessions (Flajs and Možina 2022, 87-95), it seems understandable and necessary to activate clients in an appropriate all-round way, preferably by the therapist's example and with the help of a group with a healthy core.

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1.08 Objavljeni znanstveni prispevek na konferenci
Published scientific conference contribution

SLEEP AND ITS IMPORTANCE FOR MENTAL HEALTH IN UNIVERSITY STUDENTS: ANALYTICAL CROSS-SECTIONAL STUDY

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ABSTRACT

Seeing that the number of attendance in the first hours of university lectures was limited, followed by loss of attention and general fatigue for the next hours, intrigued the initiative to undertake a study about this phenomenon. The Pittsburgh Sleep Quality Index (PSQI) is a self-assessment questionnaire which indicates sleep quality and disturbances within an interval of 1 month. General Health Questionnaire is a mental health instrument which contains 12 items that designate respondent's psychological distress. The study is an analytical cross-sectional study with self-report questionnaires as main measuring instruments. The number of participants consists of 226 students of Shkodra (N=226). From the data collected the global PSQI mean score was 8,38 (Mean=8,38), that shows a "poor" sleep quality among students. The total GHQ-12 mean score resulted 14,78 (Mean=14,78), which indicates signs of psychological distress in students. To observe if sleep disturbances and psychological distress are correlated, Pearson's Correlation was calculated with a result of approximately 0.42 (r=.419; p<0.05). Other statistical calculations where applied such as Reliability (Cronbach's α =.703 for PSQI; Cronbach's α=.87 FOR GHQ-12) and Internal Validity (KMO Bartlett test value=.73 for PSQI; KMO Bartlett test value=.86 for GHQ-12).

***Keywords**: sleep, mental health, students, psychological distress, disturbance*

1 INTRODUCTION

In the dynamic realm of academic life where students often find themselves taken away by the responsibilities and continuous curricular work, the importance of sleep is often overshadowed by the desire of achieving the required results meanwhile maintaining an active social life.

Studies have shown that the lack of sleep and poor sleep quality are associated with increased levels of stress, anxiety and depression in university students. This can lead to further problems such as memory loss, difficulty learning and concentrating, behavioral problems and reduced academic performance. So, promoting healthy sleep and raising awareness about its importance in the lives of university students is essential to maintain mental health and improve academic performance. A sleep routine that includes less than six or seven hours a night destroys the human's immune system, consequently increasing the risk of different diseases. Insufficient sleep plays a key role also in determining memory loss, which could aggravate in much more serious conditions such as Alzheimer's. There have also been studies that emphasize that a bad sleep routine can invest also in imbalanced eating habits, which can result in excessive weight gain, or loss. (Walker 2017, 11). Lack of sleep is an important predictive factor for the occurrence of mental illnesses such as depression, anxiety and psychoses (Wong et al 2019)

Scientific research has demonstrated that insufficient sleep leads to impairments in both neurobehavioral functions, such as alertness, and neurocognitive abilities, like mental speed (Dinges 2012). Recent findings suggest that these deficits worsen progressively with repeated reduction in sleep duration over consecutive days (Dinges 2012). Concurrently, epidemiological studies have linked self-reported shorter sleep durations and disrupted sleep patterns with increased risks of obesity, illness, and mortality. Given the growing body of evidence highlighting the negative impact of sleep deprivation on behavior and health, it prompts the question of how individuals manage frequent sleep restriction.

If university students take measures to ensure sufficient and good quality sleep, they can benefit from more energy, consolidation of learned information, reduced stress and increased capacity to concentrate. This can lead to better academic results, deeper knowledge, better stress management skills and an overall sense of well-being. In students, having a proper nap may have positive effects on the formation of memories. Moreover, it helps store information, sleep may also promote the flexible combination of information and thereby contribute to insightful behavior. (Meerlo and Benca 2015, 7). Followed by high expectations, often holding a healthy sleep routine might be quite difficult for students.

There's a connection between sleep and brain plasticity. Scientific evidence highlights the importance of sleeping in improving brain adaptability and regulating synapses, which are essential for overall brain function (Frank and Benington 2006, 477-488). There have been a lot of discussing about how sleep can affect also memory consolidation. Sleep helps consolidate information and improve memory. Studies have shown that getting enough sleep after studying or before tests improves both long- and short-term memory (Stickgold and Walker 2013)

Sleep has a positive impact on concentration, creativity and cognitive performance. A good night's sleep helps the brain function at its highest level and allows for deeper insights, problem solving and the ability to make big decisions. Sufficient and good sleep might improve memory consolidation, concentration and cognitive abilities (Diekelmann and Born 2010)

Therefore, understanding the importance of sleep for the mental health of university students and raising awareness about good practices for healthy sleep can contribute to improving the mental health and academic performance of university students. Data collected will show us a clear view of sleep routine of university students in Shkodër, and how it affects mental health and academic performance.

1.1 Purpose and goals

Purpose: The purpose of this paper is to investigate and analyze the importance of sleep for mental health of university students in Shkodër, Albania, and to explain how lack of sleep can affect mental health and academic performance.

Goals:

1. To analyze the relationship of sleep with mental health and brain functioning in university students.
2. To understand sleep patterns among students and what might be the consequences.
3. To identify the factors that influence the quality and quantity of sleeping in university students.
4. To assess the consequences of sleep deprivation in university students on academic performance and mental health.

Hypothesis

1. Considering the low participation in morning lectures, university students exhibit poor sleep habits as measured by the Pittsburgh Sleep Quality Index (PSQI). Specifically, we hypothesize that the majority of university students will score above the cutoff point indicative of poor sleep quality on the PSQI questionnaire.
2. There exists a positive correlation between scores on the Pittsburgh Sleep Quality Index (PSQI) and the General Health Questionnaire-12 (GHQ-12) among university students. We hypothesize that higher PSQI scores, indicative of poorer sleep quality, will correlate positively with higher GHQ-12 scores, indicating greater psychological distress and poorer mental health among university students.

2 METHODOLOGY

Main research method that was used is an analytical cross-sectional study. According to Schmidt and Brown (2019) an **analytical cross-sectional study** is a quantitative study, that does not include experimental conditions. Data collection consists in gathering information at one point in time. (Schmidt and Brown 2019, 206). The main purpose of an analytical cross-sectional study is measuring the connection that exists between a certain condition and the exposure that a certain part of the population has towards that condition. To gather data from the population that is targeted as part of the study, surveys and questionnaires are used. (Schmidt and Brown 2019, 207)

For our study there were used two main instruments to measure sleep quality among university students, in "Luigj Gurakuqi" university in Shkodër, and another instrument to measure general mental health. Both surveys were applied at one point in time with the purpose of understanding the relationship between poor sleep habits and psychological distress among students.

2.1 Instrument

PSQI- Pittsburgh Sleep Quality Index – Developed by David J Buysse (1989) and his colleagues the Pittsburgh Sleep Quality Index is a self-report instrument that measures overall sleep quality in 1 month period of time. It consists in 19 items measured by Likert Scale (scored from 0-3) resulting in one global score (Buysse et al 1989). According to the item's similarity, there are seven main components: subjective sleep quality, sleep latency, sleep duration, habitual sleep efficiency, sleep disturbances, use of sleeping medication, and daytime dysfunction. Each of these components offer a general overview on individual sleep routine and quality. Scores can vary from "0-21", lower scores are indicative off a better sleep quality, as higher scores imply poor sleep habits. This instrument is widely used from clinicians and professionals to measure sleeping habits among patients but not only. The questionnaire was applied in its original form, with no moderations. Internal validity was calculated resulting in a value of 73% of internal validity (KMO Bartlett test value=.73). While Reliability with a coefficient of Cronbach's α =.703 (p=0.01)

General Health Questionnaire (GHQ-12)- Is another self-report questionnaire that was originally developed by Goldberg in the 1970s as unidimensional (Goldberg 1972), to measure general mental health and signs of psychological distress. There are several forms that differ from the number of items that compose the survey. The questionnaire that was applied had a total number of twelve items. The scoring method might differ according to the type of survey, the method that was used was scoring according to Likert scale from a range 0 to 3, adapted also with the first questionnaire. Because of its compactness, the GHQ-12 is one of the most used instruments for detecting psychological distress in non-clinical frames (Hankins 2008; Tomás et al. 2017).

The total score generated by the survey has a range from 0 to 36. High scores are an indicator of intense psychological distress. Internal validity and Reliability for GHQ-12 were generated as 87% of Internal Validity and 86% of reliability (KMO Bartlett test value=.86; Cronbach's α=.87)

2.2 Data collection

The data collection was carried out through the Google forms platform. Questionnaires were distributed online in October 2023 until November 2023. Main target group was the University students, in all faculties in Shkodër. The selection was done without prearrangement. Each faculty was contacted through professors who contributed in the distribution of surveys. A session of information about the study and the instruments that are used was made in each faculty, explaining the nature and importance of the study, instructions on how to complete the survey and other necessary information's related to the research. Every response was recorded through google forms, all questions were demanded to answer in order to submit the survey. The email addresses for problems that may arise while filling out the questionnaire have also been set. Data was gathered and kept safe in the google forms platform. A copy of responses was downloaded from the platform, and was followed by a statistical analysis through IBM SPSS Statistics 20 version program.

2.3 Ethical considerations

Anonymity was preserved for all the data that was gathered. Every respondent voluntarily agreed to be part of the study through an informed consent section before completing the survey. All participants are above the age of eighteen. Every response was kept secure and was only accessible to the researchers responsible for study.

3 RESULTS

General results: In a total number of 226 participants (N=226), 120 were female students and 106 were male students. Around 64% aged 18-20 years old, 25% aged 21-23 years old, 8% aged 27 years old and above and around 2% aged 24-26 years old.

According to the field of study, the majority of respondents study in the field of psychology, this is also due to the higher accessibility in this particular department. Distribution of participants according to their field of study is presented above.

Table 1: Participants according to their field of study

Field of Study					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Psychology	65	28.8	28.8	28.8
	Social Work	52	23.0	23.0	51.8
	Nursery	34	15.0	15.0	66.8
	Early Childhood Education	6	2.7	2.7	69.5
	Physiotherapy	7	3.1	3.1	72.6
	Art	15	6.6	6.6	79.2
	Literature	7	3.1	3.1	82.3
	Music Education	6	2.7	2.7	85.0
	Mathematics Educations	3	1.3	1.3	86.3
	History Education	3	1.3	1.3	87.6
	Finance	7	3.1	3.1	90.7
	Foreign languages	13	5.8	5.8	96.5
	Justice	7	3.1	3.1	99.6
	22.00	1	.4	.4	100.0
	Total	226	100.0	100.0	

For each survey Global score for Pittsburgh Sleep Quality Index was calculated following the main formula suggested by authors. The instrument consists in 19 questions that are self-rated and 5 questions rated from someone else's point of view (roommate or bedmate if the person has one).

Global PSQI score is calculated by considering the seven main components. Mean score for global PSQI score for university students, was 8,38 (Mean=8,38), that shows a tendency towards "poor" sleep quality among students (M> 5)

Followed by global score of PSQI, the mean score for GHQ-12 was 14,78 (Mean=14,78) indicating signs of psychological distress among university students.

To calculate the correlation between them, we used Pearson's correlation with a result of a coefficient of approximately, 0.42 (r=.419; p<0.05).

Table 2: Pearson's Correlation

Correlations			
		sumghq	sumpsqi
sumghq	Pearson Correlation	1	.419**
	Sig. (2-tailed)		.000
	N	226	226
sumpsqi	Pearson Correlation	.419**	1
	Sig. (2-tailed)	.000	
	N	226	226
**. Correlation is significant at the 0.01 level (2-tailed).			

4 DISCUSSION

Hypothesis 1: Considering the low participation in morning lectures, university students exhibit poor sleep habits as measured by the Pittsburgh Sleep Quality Index (PSQI). Specifically, we hypothesize that the majority of university students will score above the cutoff point indicative of poor sleep quality on the PSQI questionnaire.

This hypothesis suggests a relationship between low participation in morning lectures and poor sleep habits among university students, as measured by the Pittsburgh Sleep Quality Index (PSQI). The hypothesis main purpose is understanding how sleep plays a crucial role in cognitive function and academic performance. Students who exhibit poor sleep habits are likely to experience difficulties in concentration, memory consolidation, and overall academic engagement, leading to reduced participation in morning lectures.

The hypothesis was statistically tested using the PSQI questionnaire to measure sleep quality among university students. The results of the analysis revealed a significant mean global score in a value of 8,38. According to the authors of the PSQI, a total score above 5 typically indicates poor sleep quality (M>5). According to the results we can say that the hypothesis is proved.

Hypothesis 2: There exists a positive correlation between scores on the Pittsburgh Sleep Quality Index (PSQI) and the General Health Questionnaire-12 (GHQ-12) among university students. We hypothesize that higher PSQI scores, indicative of poorer sleep quality, will correlate positively with higher GHQ-12 scores, indicating greater psychological distress and poorer mental health among university students.

The hypothesis suggests the existence of a positive relationship between scores on the Pittsburgh Sleep Quality Index (PSQI) and the General Health Questionnaire-12 (GHQ-12) among university students.

The Pearson correlation coefficient (r) of 0.419 indicates a moderate positive correlation between PSQI scores and GHQ-12 scores among university students. This suggests that as PSQI scores, which reflect poorer sleep quality, increase, there tends to be a corresponding increase in GHQ-12 scores, indicating greater psychological distress and poorer mental health.

The fact that the correlation coefficient is significant ($p<0.05$) indicates that the relationship observed between PSQI and GHQ-12 scores is unlikely to have occurred by chance alone. This lends support to the hypothesis that there exists a positive correlation between sleep quality and mental health among university students. As a result we can say that the hypothesis is proven to be right.

There have been similar studies indicating the importance of sleep and how it contributes in worsening general mental health. A study made in Italian universities, concluded that 62% of the participants reported poor sleep quality. Controlling for psychological distress, sleep quality components were found to be associated with physical and mental health. Mediation analysis showed that overall sleep quality mediated all the single associations between anxiety, depression, and stress and Health-related quality of life (Carpi and Vestri 2022). According to another study made by Steven P. Gilbert and Cameron C. Weaver (2010) there was a significant negative correlation between global score on the Pittsburgh Sleep Quality Index and grade point average supporting the hypothesis that poor sleep quality is associated with lower academic performance for students that had no clinical mental health issues. Research indicates that most students generally sleep adequately but often experience sleeplessness stemming from academic pressures and social engagements, leading to early awakenings. (Sawicka and Małgorzata 2022)

Lack of sleep could also possibly raise the risk of developing mental health disorders. Individuals who do not experience depression but suffer from insomnia are twice as likely to develop depression as those without sleep problems (Baglioni et al 2011).

These findings have important implications for both academic institutions and student well-being. They highlight the need for interventions to address sleep-related issues among students, such as promoting healthy sleep habits, providing resources for sleep education, and adjusting class schedules to accommodate students' sleep patterns. Additionally, the results highlight the importance of considering sleep quality as a factor influencing academic performance and student general well-being. It's important to highlight some effective ways that we could improve in the future in order to help students such as:

1. Education and outreach: providing education and outreach to students about the importance of sleep and the impact of lack of sleep on mental health and academic performance. This can be done through awareness raising, seminars and educational materials.
2. Create a supportive sleep environment: encouraging the creation of a supportive sleep environment in the university environment, including supportive sleep policies in student residences, quiet sleep spaces, and help with stress management.
3. Promoting healthy sleep behaviors: encouraging students to develop healthy sleep behaviors.
4. Professional consultation and assistance: providing professional consultation and assistance to students who have sleep problems, including sleep therapists and mental health counselors.

It's essential to acknowledge the limitations of the study, such as the potential for self-reporting bias in the PSQI questionnaire and the need for further research to explore other factors that may contribute to poor sleep habits among university students. It's important to highlight that correlation does not define or imply causation. Even if two variables are strongly correlated, it does not necessarily mean that changes in one variable cause changes in the other. Using different methods and adding more instruments could help gaining more correct and significant results. A greater sample that would include other universities in other cities would be very valuable to the study in the future.

5 CONCLUSION

As a conclusion the two hypotheses where proven: first, that university students in Shkodër have poor sleeping habits as a result of high scoring in Pittsburgh Sleep Quality Index, and second, that there is a positive correlation between poor sleep quality and psychological distress. These findings underscore the importance of addressing sleep-related issues in promoting student well-being and academic success. However, further research is needed to explore additional factors and add various methods that can contribute in further results.

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1.08 Objavljeni znanstveni prispevek na konferenci
Published scientific conference contribution

FAMILY OF ORIGIN AND ANGER-CONFLICT DYNAMICS IN ROMANTIC RELATIONSHIPS: A SYSTEMATIC LITERATURE REVIEW

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ABSTRACT

This systematic literature review synthesizes findings from 14 key studies exploring the impact of family-of-origin experiences on conflict and relationship dynamics in romantic and marital relationships. The selection criteria included studies that examined diverse facets of family-of-origin influences on adult relationships. The selected studies, ranging from early familial interactions to intimate partner violence perpetration, collectively highlight the enduring influence of early family environments on diverse aspects of adult relationships. The review underscores the interconnectedness of family-of-origin factors with conflict resolution patterns, marital satisfaction, attachment security, and the perpetuation of violence. The synthesis contributes not only to a comprehensive understanding of the intricate links between family-of-origin factors and adult relationship dynamics but also lays the foundation for targeted investigations to further enrich our understanding of these complex dynamics in future studies.

***Keywords**: Family-of-origin, Conflict, Romantic relationship, Marital relationship, Relationship dynamics*

1 INTRODUCTION

Anger is a complex and multifaceted emotion that plays an important role in interpersonal relationships and aggressive behavior. According to Von Salisch and Vogelgesang (2005; Dewi and Kyranides 2022, 66), chronic anger as a negative emotion is a source of distress in close relationships, often leading to lower quality relationships and increased expression of aggressive behaviors. Anger differs from other aversive emotions such as sadness and anxiety in that it is specifically associated with social maladjustment and aggressive behavior (MacKenzie et al. 2014, 387). In addition, anger is often expressed towards close people, including family members, close friends and intimate partners, as they have immediate access and close contact (Hayes et al. 2021; Slep et al. 2021) which inevitably leads to conflict. A conflict can be defined as the process in which one party sees its interests opposed or negatively influenced by another party (Hojjat 2000): (Zacchilli 2009).

Conflict between romantic partners is particularly common. When individuals in a romantic relationship exhibit undue suspicion, jealousy, or sensitivity towards their partner's actions, it can lead to conflict (Arikewuyo et al. 2020, 360). Conflict in romantic relationships often stems from differences in opinions, views, beliefs, and ideologies between partners (Arikewuyo et al. 2020, 360). Conflict can manifest itself in various forms, ranging from constructive strategies such as compromise and cooperation to destructive tactics such as criticism and avoidance (Hojjat 2000): (Zacchilli 2009). Anger and conflict dynamics play a central role in the development of romantic relationships. When people in a relationship experience anger, it is often a sign of unmet needs, unmet expectations, or unresolved issues (Betchen 2023). Healthy relationships involve effective communication, active listening and a willingness to compromise. Conversely, unresolved anger can lead to a toxic cycle of repeated conflict that weakens the emotional bond between partners (Scott 2022). Acknowledging the role of past experiences and communication patterns can be instrumental in breaking harmful cycles of conflict (Gover et al. 2008).

The dynamics of anger and conflict in romantic relationships often have roots in the family of origin. Each partner brings with them a unique set of learned behaviors, communication styles, and coping mechanisms acquired during their upbringing (Weigel et al. 2003). These influences, often stemming from the family of origin, play a crucial role in shaping how individuals navigate and express emotions within their romantic relationships (Koerner and Fitzpatrick 2002, 246). The term "family of origin" refers to the family in which an individual was raised and includes all the members, whether related by blood or not, who played a significant role in the individual's early development during infancy and childhood (DeCore and Focht 2019). It is important to understand the impact of family of origin experiences on adult relationships because the early family environment can have a lasting impact on people's attitudes, behaviors, and expectations in their romantic and marital relationships (Koerner and Fitzpatrick 2002). Anger for instance, is a powerful emotion that may have serious consequences for children (Koss et al. 2011, 36). Anger is easily transmitted to children since they are extremely sensitive to the emotions of adults around them (Koss et al. 201, 36). Children have not completely developed their emotional management abilities, leaving them more vulnerable to absorbing and mimicking the emotions of others (Cummings et al. 2009, 31). Furthermore, children frequently look at adults as role models, copying their actions and emotional reactions (Koss et al. 2011, 37). This imitation consists of both good and negative behaviours, such as anger (Koss et al. 2011, 38). According to studies, marital conflict may be a significant source of anger transmission to children. Empirical studies repeatedly demonstrate that a person's family of origin has a major impact on the dynamics of anger and conflict in romantic relationships. Koerner and Fitzpatrick (200, 246) discovered that conflict behaviours in adult's romantic relationships can be shaped by communication patterns in their families of origin. This was confirmed by Benson et al. (1993, 663), who showed how family dynamics like control and fusion can cause higher levels of anxiety and aversive communication in romantic relationships. The long-term effects of family-of-origin connections, on patterns of marital conflict resolution and hostile conflict in early marriage were emphasised by Whitton (2008) and Topham (2005). Together, these studies highlight how crucial it is to take into account one's family of origin when analysing and resolving anger and conflict in romantic relationships.

2 THE PURPOSE OF THE STUDY

The purpose of this study is to contribute to the existing body of research on the dynamics of anger and conflict in romantic relationships through a systematic literature review. While numerous studies delve into the origins and management of relationship conflicts, there is a noticeable gap in understanding how individuals' family of origin influences their approaches to anger and conflict resolution in romantic partnerships. Existing literature predominantly adopts a psychological perspective, often overlooking the nuanced familial factors at play. This research aims to address this gap by providing a comprehensive overview of recent scientific studies that explore the role of family of origin in shaping anger and conflict dynamics within romantic relationships. By synthesizing these findings, the study seeks to shed light on the familial components influencing the way individuals navigate and express anger in their romantic partnerships, ultimately contributing to a more holistic understanding of relationship dynamics.

3 METHOD

3.1 Systematic Literature Review

The research employed the systematic literature review method, as the chosen research approach. Accordnig to Snyder (2019, 335), this method entails a comprehensive comparison of results from both qualitative and quantitative studies, utilizing a qualitative approach. It brings out clear and methodical overview of a specific scientific field by identifying, critically evaluating, and integrating findings from significant qualitative studies addressing a particular research topic (Cooper 2003). To implement this method, a detailed analysis protocol was prepared, and the research material consisted of relevant studies adhering to predefined criteria for inclusion and exclusion from the analysis (Ressing et al. 2009, 458). The outcome was a thorough and systematic review of a substantial number of previously published quantitative and qualitative research pieces in a specific field. Through the integration of findings and perspectives derived from diverse empirical studies, the study aimed to provide answers to research questions in a manner that surpasses the scope of any single study (Snyder 2019, 336).

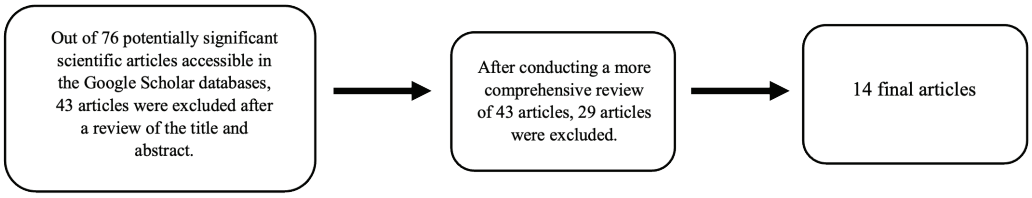
3.2 Procedure

For this study the selected online database among the available ones was Google Scholar because it includes numerous publications which focus on the chosen topic. Next step was to identify the most appropriate keywords and criteria. Time period of a search was 2000-2023. The database was searched with the following keywords: "Anger", "Conflict", ""Family-Of-Origin", "Anger-Conflict Dynamics". To capture relevant studies, the following criteria was considered:

- The full article presented an original study in English and was published between 2000 and 2023.
- The content of article referred to aspects of anger/conflict in romantic relationship and/or influence of Family-Of-Origin on the current romantic relationship.
- The study involved individuals examining anger-conflict dynamics in romantic relationships, particularly considering the influence of family-of-origin experiences

Articles were assessed based on their title and abstract. For the included articles, full text was reviewed in order to determine if it was relevant. Following the criteria, final selection of articles was analyzed with the objectives of the research. The process of choosing articles is shown in Figure 1.

Figure 1: Search strategy for systematic review



4 RESULTS

The literature continually highlights the long-lasting effects of the family of origin on a range of aspects of adult romantic relationships. Every study gives a unique perspective on the complexity of intricate interplay between family-of-origin dynamics and adult relationship outcomes. The research findings on the topic can be summarized in the following areas: marital adjustment and conflict resolution, stress spillover and daily life impact, dating violence, impact of childhood experiences on intimate partner violence (IPV) and inter-generational transmission of relationship patterns. Together, these five areas highlight the complex relationships that exist between experiences from one's family of origin and different aspects of adult relationships. They also shed light on the interactions between different factors that influence marital dynamics, conflict resolution styles, and the generational transference of relationship traits.

Table 1: displays the primary characteristics of the chosen studies

Survey (authors, year) and type of survey	Sample	Research approach and method of data collection
Koerner and Fitzpatrick (2002) Quanitative research	Undergraduated studnets involved in romantic relationships (N=260)	Statistical analysis (questionnaires)
Sabatelli and Bartle-Haring (2003) Quanitative research	Married parents of students (N=125)	Statistical analysis (questionnaires)
Topham et al. (2005) Quanitative research	Married couples (N=367)	Statistical analysis (questionnaires)
Timmons et al. (2016) Quantitative research	Married couples (N=114)	Diary methodology to investigate same-day and cross-day links between stress and couple conflict.
Karakurt et al. (2013) Quantitative research	College-aged couples in romantic relationships (N=87)	Statistical analysis (questionnaires)
Taft et al. (2008) Quantitative research	Heterosexual couples (N=164)	Statistical analysis (questionnaires)
Reese-Weber and Khan (2005) Quantitative research	Late adolescents from intact and divorced families (N=272)	Statistical analysis (questionnaires)
Hardy et al. (2015) Quantitative research	Heterosexually married couples where both partners were in their first marriage (N = 961)	Statistical analysis (questionnaires)
Gover et al. (2008) Quantitative research	Undergraduate students at two large southeastern universities (N=2541)	Statistical analysis (questionnaires)
Dennison et al. (2006) Quantitative research	Newlywed couples (N=190)	Statistical analysis (questionnaires)
Eriksson and Mazerolle (2014) Quantitative research	Male arrestees (N=327)	Statistical analysis (interviews and questionnaires)
Larkin et al. (2010) Quantitative research	Young adults (N=38)	Statistical analysis (role-play conflict tasks to elicit behavioral, affective, and cardiovascular responses)
Weigel et al. (2003) Quantitative research	College students involved in romantic relationships (N=192)	Statistical analysis (questionnaires)
Holman and Busby (2011) Quantitative research	Couples in romantic relationships (N=1,839 couples, 3,678 individuals)	Statistical analysis (questionnaires)

4.1. Marital adjustment and conflict resolution

The exploration of marital adjustment and conflict resolution within adult relationships, as brought by studies such as Sabatelli and Bartle-Haring (2003, 166), Topham et al. (2005), Reese-Weber and Khan (2005), and Dennison et al. (2006, 431), reveals the enduring impact of family-of-origin experienc-

es on the dynamics of romantic relationships. Sabatelli and Bartle-Haring (2003, 166) uses structural equation modeling to demonstrate that both husbands' and wives' family-of-origin significantly influence marital adjustment, with a notable emphasis on the stronger influence of wives' experiences. Topham et al. (2005) extends this exploration, highlighting the predictive role of family-of-origin variables during engagement on hostile marital conflict several years into marriage. Reese-Weber and Khan (2005, 486) adds a contextual dimension, showing that conflict resolution behaviors mediate the relationship between interparental conflict and conflict resolution within romantic relationships. Dennison et al. (2006, 432) investigates the influence of family-of-origin characteristics on marital satisfaction, emphasizing the potential mediation by conflict resolution styles. Holman and Busby (2011, 17) discovered that family of origin characteristics, such as parental marriage quality and parent-child relationship quality, were strongly connected to respondents' and partners' romantic relationship quality. This shows that the quality of relations within one's family of origin might influence how well someone is able to handle conflict and achieve marital adjustment in marriage as an adult.

4.2. Stress spillover and daily life impact

Some studies have shown how are day-to-day dynamics shaped by family of origin connected to stress flow in relationship. Timmons et al. (2016) show that stress faced by one partner spills over into marital conflicts, affecting both partners. Larkin et al. (2010, 664) indirectly suggest that how people respond to conflicts in their daily life is influenced by their family upbringing. Hardy et al. (2015, 516) highlight that family experiences directly impact how one regulates his relationships, especially in handling stress. Additionally, Dennison et al. (2006, 432) indicate that family background is tied to how satisfied people are in their marriages, potentially affecting how they deal with everyday interactions and stressors in their adult relationships. Together, these findings tell a story of how the lessons from family of origin continue to shape the navigation of the ups and downs of daily life in relationships.

4.3. Dating violence

Examining the complex dynamics of romantic relationships, Karakurt et al.'s (2013, 570) study highlights an important association between dating violence and attachment insecurity. According to the research, those who experience higher degrees of attachment insecurity are more likely to become targets of aggressive dating behaviour. This discovery aligns with the wider storyline presented by Taft et al. (2008, 641), Gover et al. (2008, 1681), and Eriksson and Mazerolle (2014, 955), which highlight the long-lasting influence of early life events, particularly being exposed to violence, on the development of intimate partner violence (IPV). These revelations offer a deep comprehension of the human experience by showing how early attachment affects patterns of violence and conflict in adult romantic relationships in addition to dating dynamics.

4.4. Impact of childhood experiences on intimate partner violence (IPV)

In the research by Gover et al. (2008, 1683) the idea of childhood events having a major role in determining an individual's likelihood for violence in intimate relationship is supported. According to their research, there is a continuous correlation between childhood exposure to violence, such as seeing parental violence or suffering maltreatment as a kid, and participating in violent romantic relationships for both men and women. Also, Taft et al. (2008, 642) investigated the influence of early life events on male-to-female psychological and physical intimate relationship abuse in adulthood, including parental rejection, exposure to interparental violence, and childhood physical abuse. Researching the significant influence of early life events on the perpetration of intimate partner violence (IPV) is essential because it brings light to the complex mechanisms of the intergenerational transfer of violence. Eriksson and Mazerolle (2014, 956) conducted a thorough investigation of the relationship between male arrestees' early exposure to violence and their later adult perpetration of violence against intimate partners. The results showed an interesting correlation: males were more likely to act violently in their personal relationships later in life if they had grown up seeing interparental violence. It was surprising to learn that prior experiences of child maltreatment did not predict the commission of intimate partner violence (IPV), highlighting the complex and role-specific nature of cross-generational violence transmission.

4.5. Intergenerational transmission of relationship patterns

The concept of intergenerational transmission of relationship patterns refers to the transfer of behaviors, communication styles, and relationship dynamics from one generation to the next within one family (Koerner and Fitzpatrick 2002, 247). This process can affect how individuals form and maintain their own romantic relationships based on the models and experiences they observed within their family of origin (Koerner and Fitzpatrick 2002, 247). Koerner and Fitzpatrick (2002, 247) find that people who grew up in families with high levels of conflict and negative communication patterns are more likely to engage in destructive conflict behaviors in their romantic relationships. On the other hand, individuals who grew up in families with positive communication patterns and effective conflict resolution strategies are more likely to engage in constructive conflict behaviors (Koerner and Fitzpatrick 2002, 248). The study suggests that understanding the intergenerational transmission of relationship patterns can give valuable insights into the factors that affect ones' behaviors and interactions within their own intimate partnerships. Weigel et al. (2003) study extends current understanding of the intergenerational transmission of relationship patterns. The results imply that children can inherit attitudes, beliefs, behaviours, and relationship outcomes from their families of origin, and all of that may then manifest in their adulthood. Weigel et al. (2003) discovered that parental divorce and perceived parental satisfaction were connected with the frequency of specific commitment concepts appearing in family stories. For example, individuals who experienced parental divorce were more likely to report concepts linked to the instability of relationships, in contrast to those who saw their parents' marriage as good were more likely to report concepts associated to loyalty to partner (Weigel et al. 2003). The study gives perspectives on how commitment ideas may be created, changed, and regulated by one's family of origin. It emphasises the need of addressing family of origin aspects in understanding individuals' attitudes and behaviours in their present romantic relationships.

5 DISCUSSION

Using the systematic literature review, five areas related to family of origin and anger-conflict dynamics in romantic relationships were identified. They are: : marital adjustment and conflict resolution, stress spillover and daily life impact, dating violence, impact of childhood experiences on intimate partner violence (IPV) and intergenerational transmission of relationship patterns.

Family of origin plays one of the most important roles in individual's life. It creates foundation for almost every other interaction a child will have in its adult life. The profound impact that family of origin has on the transmission of traits, behaviors, and attitudes related to romantic relasionships marital stability across generations is unquestionable (Amato et al. 2001, 1049). Understanding these dynamics is essential for developing interventions and strategies aimed at breaking the cycle of intergenerational marital instability and promoting healthier family relationships in the future (Amato et al. 2001, 1049). Exploring these topics is significant because it reveals the long-term influence of early life events on adult behaviour, particularly in the context of romantic relationships. Marital adjustment, conflict resolution, and the intergenerational transfer of relationship patterns are all important factors in shaping people's capacity to handle the difficulties of adult relationships.

Anger and conflictive behaviour could be easily passed on to children as a result of a variety of circumstances. First, children learn behaviours and emotional reactions by witnessing and copying their parents. If parents regularly display anger or deal with disagreements in an aggressive way, children are likely to internalise these patterns and repeat them in their own behaviour (Katz et al. 1994; Dadds et al. 1999; Amato et al. 2001, 1050). Also, children don't have fully developed emotional regulation skills, which makes them more susceptible to absorbing and mirroring the emotions of others (Cummings et al. 2009, 33). Finally, children may perceive anger as a means of gaining attention or taking control in their own lives (Koss et al. 201, 37). It is crucial for parents to be mindful of their own emotional expressions and interactions, especially in the presence of children. By fostering a positive and supportive emotional environment, adults can help children develop healthy emotional regulation skills and coping mechanisms for their future relationships. Addressing and resolving conflicts in a constructive way might significantly reduce the transmission of anger to children.

This review didn't provide much information on the specific relation of family of origin and anger-conflict dynamics in romantic relationships, but it certanly did brought out valuable understanding of how family of origin influences one's behaviour later in adulthood. This study might be a starting point for futher research, which would provide deep view of this complex yet undeinably interesting topic. Given that the majority of research in this field is quantitative, a qualitative approach could provide more understanding of the subject. Qualitative methodologies, such as in-depth interviews or narrative analyses, could capture the true picture of how family-of-origin influences contribute to the development and expression of anger in adult romantic relationships.

6 CONCLUSION

In conclusion, this systematic literature review showed that family-of-origin experiences had a considerable influence on conflict resolution and relationship dynamics in romantic relationships and marriages. The integration of 14 significant research has revealed the long-term impact of early familial contexts on adult relationships, emphasising the connection between family-of-origin elements and conflict resolution patterns, marital satisfaction, and attachment security. The review brings out the significance of acknowledging prior experiences and communication patterns in understanding anger and resolving conflict in romantic relationships. Furthermore, it emphasises the need for future study to dive further into the varied familial aspects at work, as well as to investigate the long-term effects of family-of-origin relationships on relationship dynamics.

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1.08 Objavljeni znanstveni prispevek na konferenci
Published scientific conference contribution

UNDERSTANDING SUBJECTIVE WELL-BEING IN KOSOVO YOUTH: EXPLORING PSYCHOSOCIAL AND SOCIO-DEMOGRAPHIC FACTORS

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ABSTRACT

Background: Subjective well-being (SWB) is a complex construct that is influenced by a variety of psychosocial factors. The aim of this study in Kosovo is to explore how various psychosocial factors—such as cognitive style, hope, social support, coping strategies, and socio-demographic elements—interact with SWB among the youth.

Methods: In a cross-sectional study, 490 individuals between 15 and 23 years old took part (Mage=19.06; SD=4.17). These participants went through a series of assessment tools including the Adult Hope Scale, the Brief COPE Scale, the Oslo 3-item Social Support Scale, the WHO-5 Well-Being Index, and the Cognitive Reflection Test.

Results: A score below 13 indicating poor wellbeing is found in 26.9%. The study found significant correlations between WHO-5 Well-being Index scores and various factors: the social support scale ($r = .288$, $p < 0.00$), CRT score ($r = -.098$, $p < 0.04$), Problem- focusing Coping ($r = .137$, $p < 0.03$), Adult Hope Scale agency thinking ($r = .352$, $p < 0.00$), Adult Hope Scale pathway thinking ($r = .370$, $p < 0.00$), Adult Hope Scale total score ($r = .351$, $p < 0.00$), and Dysfunctional Coping ($r = -.210$, $p < 0.01$). Multiple linear regression indicated that gender, CRT scores, social support, dysfunctional coping and Adult Hope Scale in total were predictors of reporting SWB.

Conclusions: Specific psychosocial elements, particularly the availability of social support, the use of coping mechanisms, and certain aspects of hope, have a substantial impact on the SWB of Kosovo's youth; with potential implications for addressing these factors.

***Keywords**: Subjective well-being, Psychosocial factors, Demographic factors, Adolescent, Kosovo*

1 INTRODUCTION

Dursun (2021, 31) stated that Well-being is often used to encompass life satisfaction, positive mental health, and general happiness. However, there isn't a universally accepted definition for Subjective Well-being (SWB) among scholars. Based on Diener (2006, 399), Subjective well-being (SWB) represents the an assessment individuals make about their lives, encompassing cognitive and affective dimensions (Diener et al. 2003, 404). It's the amalgamation of subjective evaluations involving life satisfaction, emotional responses, and the overall perception of life, including specific facets like health, work, and relationships (Brajša-Žganec et al, 2018, 48). For, Lopez and Snyder (2011, 69), also this construct delineates the holistic view of an individual's contentment, considering both emotional and cognitive evaluations; characterized by positive emotions outweighing negative ones, a favourable assessment of life, and a sense of satisfaction (Diener et al. 1999, 277). Also, SWB spans beyond mere happiness, containing a person's overall mental and emotional wellness (Weare 2015, 12), crucial for fostering healthy and productive societies (Das et al, 2020, 2). In the context of defining coping, the prevailing description often includes the intentional strategies (cognitive and behavioral approaches), that individuals utilize to effectively manage and navigate through challenging and stressful situations (Folkman and Moskowitz 2004; 747, Lazarus and Folkman 1984). It involves a series of thoughts, emotions, and actions aimed at managing the challenges and demands perceived as stressful, with the goal of safeguarding oneself from psychological distress (e.g. Skodol, 2010, 159). Regarding coping style, shcholars state that denotes an individual's habitual approach or general manner of dealing with various stressful life events. Hope is defined as construct who embodies a fundamental cognitive-motivational factor, encompassing both belief and expectation in achieving desired goals (Snyder et al. 1991, 571). It involves the fusion of pathway thinking (the perception of finding routes to goals) and agency thinking (the motivation to utilize these routes) (Snyder 2002, 250; Snyder & Lopez, 2007, 189). Essentially, hope represents the collective perceived capabilities to create pathways toward desired objectives, coupled with the motivation to actively pursue and utilize these pathways (Snyder 2002, 250). Hope serves as a psychological strength, fostering resilience and positivity amid challenging circumstances, enabling individuals to maintain positive expectations and confidence in reaching their goals (Fredrickson 2001, 218). Social support can be encapsulated as the presence of individuals within one's social network who offer emotional, informational, and practical resources during challenging times (Cohen 2004, 676). It encompasses aid and assistance from family, friends, neighbors, and others, serving as a multifaceted network of interactions that individuals can rely on for various forms of help and assistance (Schwarzer, Knoll, & Rieckmann 2004; 159).

Subjective Well-being contributing factors

At an individual level, various factors contributing to one's sense of well-being have been extensively explored (Brajša-Žganec et al. 2018, 48). These encompass elements such as gender, age, income, employment status, education level, marital status, personality traits, health conditions, and individual as well as social behaviors (Brajša-Žganec et al. 2018, 48). However, existing research presents inconsistencies regarding the impact of gender on subjective well-being (SWB) (Brozi 2018, 36; Das et al. 2020, 18). Studies have identified specific coping strategies associated with higher levels of SWB, particularly problem-focused coping (Diener et al. 1999, 278). Fischer et al. (2021, 3415) noted limited exploration of the relationship between coping strategies and SWB in the general population, yet observed generally positive associations with SWB for actions directed at solving problems, active coping, and planning. Chen (2016, 378) emphasized the significance of coping styles in predicting SWB. When it comes to studies on cognitive thinking styles in relation to SWB, we've noticed a lack of them or that many have used different terminology and categorizations. For example, Muyan-Yilik, M., & Demir, A. (2020) found that cognitive flexibility failed to have direct effects on subjective well-being. In, overall, the relationship between thinking style (analytic vs. intuitive) and subjective well-being is complex and can depend on various factors. In the context of hope and its correlation with subjective well-being, Irwing et al. (1998) revealed a notable positive link between hope and positive affectivity, alongside a significant negative correlation between hope and negative affectivity. Furthermore, additional studies have underscored the close connection between hope and subjective well-being (Bailey et al.,

2007, 169; Satici et al., 2016, 68). Within the realm of social connections, a pivotal factor influencing subjective well-being is identified as social support (Brajša-Žganec et al. 2018, 48). Brajša-Žganec et al. (2018, 49) highlighted that various dimensions of social relationships and support are associated with reduced depression, heightened life satisfaction, increased happiness, and overall well-being. Nevertheless, certain studies have presented conflicting perspectives, suggesting that social support may contribute to heightened depression or negative emotional states or might even demonstrate no impact on life satisfaction (e.g., Yildirim & Tanriverdi 2021, 127). Contrarily, Das et al. (2020, 21) indicated consistent findings across studies, demonstrating the positive impact of perceived social support from family, community, friends, and acquaintances on subjective well-being (SWB). These diverse findings underscore the intricate and occasionally contradictory effects of social support on mental health and well-being. Additionally, in a longitudinal study, Turner (1981, 357) reported a correlation between social support and subjective well-being. However, it's important to note that all aspects of subjective well-being (SWB) can also be seen as subject to fluctuation, occurring on a daily or even moment-to-moment basis, often referred to as state-like SWB (Brose et al. 2013, 940).

Studies on Subjective well-being in Kosovo

In the realm of studies focusing on subjective well-being in Kosovo, the literature review doesn't offer significant findings, suggesting that this area remains considerably underexplored. One particularly noteworthy study for Kosovo is the work conducted by Diener & Tay (2015, 11), involving an analysis of Gallup pool samples spanning from 2005 to 2013 across 164 nations, Kosovo being one of them. This study stands as the largest and most extensive sample globally to date. According to this research, Kosovo ranks 78th concerning the average of the assessed components for subjective well-being and human welfare.However, concerning solely subjective well-being, it ranks 52nd. Furthermore, based on mean WHO-5 scores in the countries surveyed in the European Quality of Life survey 2012, Kosovo's average is 63.1, positioning it at 16th among the 34 presented countries (Eurofund 2012).

Kosovo Context: Youth

Kosovo is country, located in Southeastern Europe; recognized with the youngest nation on the European continent. Kosovo, with a population of 1.8 million, has the youngest average age in Europe at 26 years, as reported by Macrotrends in 2021 (Macrotrends, 2021).Despite this, it is also known for having one of the weakest economies in Europe, placing it in the lower-middle-income category according to the World Bank's 2017 report (World Bank, 2017). A study released by the European Commission on October 20, 2023, underscores that Kosovo's GDP per capita is the lowest in the region (EC, 2023). Roughly 18% of its population lives under the poverty line, set at EUR 45 per month by the World Bank, and 5.1% live in extreme poverty according to the EC's 2022 report (EC, 2022). It's noteworthy that about 38% of Kosovars are under 20 years old, as per the World Bank's 2017 data (World Bank, 2017), whereas a major concern is the high youth unemployment rate, which stands at 38.9% (up from 49.1% in 2020) according to the EC's 2022 report (EC, 2022); there is also factors such as demographic pressures, a trend towards emigration, and a lack of quality education which contribute to the precarious situation of Kosovo's youth, as per the EC's 2022 report.

2 MATERIALS AND METHODS

2.1 Sample and procedure

The study involved 490 students, aged 15 to 23 years, with a mean age of 19.06 (SD = 4.17). The participant pool consisted of 133 males (27.1%) and 357 females (72.9%). Students were randomly selected from two secondary schools in Prishtina, a public university, and a private college. All students in the selected classes were asked to fill out self-report questionnaires. These questionnaires were distributed in their classrooms after obtaining the necessary permissions and informed consent. It's important to note that no incentives were offered to motivate the students to participate in the study.

2.2 Instruments

Measuring instruments used in the present study included the Albanian version of the instruments below:

- The Adult Hope Scale (Snyder et al., 1991) is a psychometric tool used to measure an individual's hope level. It consists of 12 items that assess two subscales: Pathway Thinking (measures planning to accomplish goals) and Agency Thinking (measures goal-directed energy). Each item is scored on an 8-point Likert scale, ranging form definitely false to definitely true; with higher scores indicating a greater level of hope. Cronbach's alphas for the scale items was α =.91.
- The Brief COPE Scale (BCOPE; Carver, 1997) is a shorter version of the COPE scale and is composed of 28 items which conceptually measure 14 coping reactions with two items: Active Coping, Planning, Positive Reframing, Acceptance, Humor, Religion, Using Emotional Support, Using Instrumental Support, Self-Distraction, Denial, Venting, Substance Use, Behavioral Disengagement and Self-Blame. The scale focuses on resilience and coping and uses a 4-point scale to score each item. Subscale scores range from 0 to 6, with higher scores indicating a stronger tendency toward a specific coping style. The subscales are categorized into emotion-focused coping, problem-focused coping, and dysfunctional coping. Cronbach's alphas for the scale items was α =.89.
- The Oslo 3-item Social Support Scale (O3SS;Dalgard,1996), is a concise tool used to assess an individual's perceived level of social support. It measures social support based on three aspects: the number of close individuals, the interest and concern shown by others, and the ease of obtaining practical assistance. The scale contains three items, and the scores are summed to calculate the scale score, which ranges from 3 to 14. Scores of 3–8 indicate „poor support," 9–11 indicate „moderate support," and 12–14 indicate „strong support." Cronbach's alphas for the scale items was α = .53.
- The WHO-5 Well-Being Index, introduced by WHO in 1998, is a brief self-reported assessment / generic global rating scale designed to measure an individual's current subjective psychological well-being. This is among the most widely used questionnaires assessing subjective psychological well-being. At present, the WHO-5 has been translated into over 30 languages and has been used in research projects all over the world. It is appropriate for children aged 9 and above. The questionnaire comprises five simple and non-intrusive questions positively worded items that are rated on 6-point Likert scale, ranging from 0 (at no the time) to 5 (all of the time). The final score on the WHO-5 ranges from 0 to 100, where 0 represents very poor well-being and 100 indicates excellent well-being. A score of ≤50 indicates poor wellbeing and suggests further investigation into possible symptoms of depression. A score of 28 or below is indicative of depression. Cronbach's alphas for the scale items was α =.89.
- The Cognitive Reflection Test (CRT; Frederick,2005), consists of three mathematical/numerical text-based problems intended to elicit initial incorrect responses. It is a task designed to measure a person's tendency to override an incorrect "gut" response and engage in further reflection to find a correct answer. However, the correct answer can be obtained through analytical thinking and reevaluating the initial impressions. Each correct response is assigned a code of ‚1', and incorrect responses are given a code of ‚0'. The total score is calculated by summing the scores across the three problems. A higher score indicates a greater ability to resist impulsive responses and is often considered a measure of general cognitive ability. Participants are categorized into three groups based on their scores: the „low" group (participants who scored 0 out of 3), the „intermediate" group (participants who scored 1 or 2), and the „high" group (participants who scored 3 out of 3). Cronbach's alphas for the scale items was α =.50.

2.3 Ethical considerations

The research was carried out in compliance with the guidelines set forth in the Declaration of Helsinki and the European code of conduct for research integrity. Before participating, all participants were given detailed information about the study. Their involvement was completely voluntary and anonymous, and they gave their written informed consent to participate. They also had the right to withdraw from the study at any point without any consequences. Only the researchers involved had access to the research data and data management has had appropriate measures to ensure their security. Approval for this research was obtained from the Ethical Commission of the AAB College Prishtina, Kosovo, no. A6-437/23, dated 19.07.2023.

2.4 Design and statistical analysis

The study was a cross-sectional correlational study. Data handling and statistical analysis was carried out by using SPSS software version 27 and Microsoft Excel 2019. These descriptive data were further analysed according to age, gender and other variables investigated. Normality is assessed with Kolmogorov-Smirnov statistic. In this case, the Sig. value is .000, suggesting violation of the assumption of normality for all variables, thus we must use nonparametric tests. For differences across groups, we used *Mann–Whitney* U test and Kruskal-Wallis test.

3 RESULTS

The results show that out of 490 participants, 132 or 26.9% reported poor SWB, while 343 or 70% reported good SWB; 15 cases or 3.1% did not completed all items of the questionnaire. The mean of SWB was 62.44 (SD=25.09). Regarding the categorization based on scores indicative of depression, 54 participants or 11% showed scores indicative of depression, while 421 participants or 85.9% did not; 15 cases or 3.1% did not completed all items of the questionnaire.

The correlations between different variables were examined using Spearman's rank-order correlation coefficient. The study found significant correlations between WHO-5 Well-being Index scores and various factors: the social support scale ($r = .288$, $p < 0.00$), CRT score ($r = -.098$, $p < 0.04$), Problem- focusing Coping ($r = .137$, $p < 0.03$), Adult Hope Scale agency thinking ($r = .352$, $p < 0.00$), Adult Hope Scale pathway thinking ($r = .370$, $p < 0.00$), Adult Hope Scale total score ($r = .351$, $p < 0.00$), and Dysfunctional Coping ($r = -.210$, $p < 0.01$).

The Mann-Whitney U test was conducted to compare WHO-5 scores between two groups based on the gender. The test revealed a statistically significant difference in SWB scores between the groups ($U = 18305.500$, $Z = -2.555$, $p < 0.011$, 2-tailed). The results indicated that females (Md=64) had significantly lower SWB scores than males (Md=68). But the Mann-Whitney U test has not found significant differences between rural and urban residence.

The Mann-Whitney U test was used to compare various scores between two groups categorized by their WHO-5 scores (poor SWB vs. good SWB) (Table 1). The findings revealed that the group with poor SWB had notably higher scores in Dysfunctional Coping and lower scores in CRT. Conversely, the group with good SWB exhibited significantly higher scores in Emotion-focused coping, Problem-focused Coping, Adult Hope Scale total score, Adult Hope Scale pathway thinking, and Social Support scores.

Table 1: Mann-Whitney U test between two groups categorized by their WHO-5 scores (poor SWB vs. good SWB)

WHO5 Index		N	Mean Rank	Sig.
Cognitive Reflection Test	Good SWB	320	213.63	0.005
	Poor SWB	124	245.40	
Social support	Good SWB	343	257.23	0.000
	Poor SWB	132	188.04	
Adult Hope Scale agency thinking	Good SWB	342	258.99	0.000
	Poor SWB	130	177.33	
Adult Hope Scale pathway thinking	Good SWB	343	259.82	0.000
	Poor SWB	132	181.30	
Adult Hope Scale total score	Good SWB	342	261.77	0.000
	Poor SWB	130	170.01	
Emotion Focused Coping	Good SWB	340	246.52	0.010
	Poor SWB	132	210.70	
Problem Focused Coping	Good SWB	341	249.43	0.001
	Poor SWB	132	204.90	
Dysfunctional Coping	Good SWB	338	222.83	0.001
	Poor SWB	132	267.95	

A multiple regression analysis was conducted to forecast SWB reporting using the WHO-5 index along with Gender, CRT scores, Dysfunctional Coping, Emotion-focused coping, Problem-focused Coping, Adult Hope Scale total score, and Social Support scores. The outcome revealed a significant model, $F(7, 429) = 17.342$, $p < .001$, with an $R2$ of .221. Upon closer examination of individual predictors, it was evident that Gender, CRT scores, Dysfunctional Coping, Adult Hope Scale total score, and Social Support scores were significant predictors. However, Emotion-focused Coping and Problem-focused Coping did not emerge as significant predictors.

4 DISCUSSION

This is one of the first studies in Kosovo that has been conducted investigating the relationship between Subjective Well-being (SWB) and various personal and sociodemographic variables in youth. The finding that approximately 1/3 of participants report poor SWB suggests that a significant number are experiencing challenges in life. The average SWB of 62.44 turns out to be slightly lower than the average of 63.1 in the 2012 study (Eurofund 2012). Regarding the discovery that females have lower levels of SWB than males, we can note inconsistency in these findings in the literature (Brozi 2018, 36; Das et al. 2020, 18). However, considering that Kosovo is a collectivist society (Latifi 2019, 249) with enduring patriarchal premises, this result might be expected. Similarly, (Schnepf 2010) found similar results for women in post-communist countries.

Hope appears to be associated with higher levels of SWB in total scores as well as in agency/pathway subscales, indicating its predictive role in SWB. Studies by Irwing et al. (1998), Bailey et al. (2007, 169), Dursun (2012, 31), Satici et al. (2016, 68), also support the link between Hope and SWB. Thus, in overall, hope seems to play a significant role in promoting higher levels of SWB.

Certainly, Social Support shows a significant and predictive association with SWB, aligning entirely with studies by Turner (1981, 357); Das et al. (2020, 18); and Brajša-Žganec et al., (2018, 48). Of course, social support's significant and predictive association with SWB is rooted in its ability to provide emotional support, reduce stress, foster a sense of belonging, offer validation and encouragement, and ultimately contribute to individuals' overall happiness and well-being.

Less analytical thinking is linked to higher levels of SWB and also has predictive power. We may speculate there that non-analytical thinkers might be more accepting of circumstances and more adaptable to changes and prioritize social connections and relationships.

The examination of coping strategies reveals distinct relationships with subjective well-being (SWB). Firstly, high levels of dysfunctional coping are associated with lower levels of SWB and also demonstrate predictive power. Secondly, Emotional-focused coping shows significance only when comparing groups between poor SWB and good SWB, but lacks predictive power. Thirdly, high levels of problem-focused coping are linked to higher levels of SWB but do not have predictive power, indicating its positive correlation but limit predictive capacity in determining overall subjective well-being. Findings for problem-focused coping are in line with the study by Diener et al. (1999). In overall, there are varying findings, generally showing positive associations with SWB; with some strategies demonstrating stronger predictive power or immediate influence on well-being compared to others.

4.1 Limitations

This study has a few key constraints to consider. The main one is that the cross-sectional structure restricts our capacity to determine cause-and-effect relationships among the examined variables. This method provides a one-time glimpse, neglecting the changing and progressing aspects of the phenomena under study. Furthermore, we should be careful when extrapolating our results, as the study's framework may not adequately reflect the broader population's diversity and intricacy. To overcome these constraints, subsequent research could utilize longitudinal or experimental structures with more varied and representative samples. This strategy would offer a more thorough insight into the interconnections among these variables.

5 CONCLUSIONS

This Kosovo study offers valuable insights into SWB among youth and its links to various personal and sociodemographic factors. Discoveries include the prevalence of poor SWB among a third of participants, suggesting a need for targeted interventions. Females tend to report lower SWB, indicating the necessity for gender-specific approaches. Hope and social support emerge as significant factors, emphasizing their potential in boosting youth SWB.

Interestingly, less analytical thinking aligns with higher SWB, hinting at the role of adaptability in well-being. Coping strategies show mixed predictive power on SWB, suggesting a nuanced understanding is crucial.

To enhance youth SWB in Kosovo, future interventions should consider these factors. Further research in varied cultural contexts is essential to develop more effective strategies for promoting youth SWB.

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1.09 Objavljeni strokovni prispevek na konferenci
Published professional conference contribution

A MINDFULNESS APPROACH IN SHAPING THE CONCEPTS OF INTERPRETING HOUSE MUSEUMS

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ABSTRACT

This research develops a thematic framework and guidelines for contemporary sustainable interpretation models in house museums, with an emphasis on a mindful approach. Mindfulness is becoming increasingly popular in museums as a means of promoting mental health and creating a comprehensive experience of artistic, historical, or thematic exploration. It encourages visitors to connect with the past exhibited by the museum, allowing them to discover themselves.

Modern interpretation strategies not only enable visitors to experience the material dimension of historical architecture but also provide a holistic experience of culture, heritage, and authenticity at a specific destination while promoting sustainability. House Museums reflect the local community and nation, serving as places for preserving collective memories. In the fast pace of globalisation, members of a community recognise them as the last refuge against the loss of specificity and diversity.

Understanding the complex messages in House Museums requires a mindful approach, as they cannot be fully comprehended solely through rational means. Holistic heritage experiences, which support individuals in their physical, mental, and spiritual dimensions, should be a key priority for every museum. New approaches to the interpretation of House Museums are needed to establish socio-social connections and communication between societies of the past, present, and future.

This research will be based on the first house transformed into a museum in Slovenia in 1939 – Prešeren's birth house. Today, it is the most visited museum of its kind in Slovenia and symbolizes a representative model in shaping the interpretation of House Museums in the country.

***Keywords**: House Museums, Prešeren's Birth House, mindfulness approach in interpretation*

1 INTRODUCTION

The new museology understands museums as spaces of coexistence and encounter, as creators of new, positive and enriching experiences, and as places that embrace the diversity of their audiences (International Council of Museums 2022).[1] The attention that museums dedicate to groups of people in vulnerable situations, such as those with mental health issues, has become a priority for museums and is considered good practice (Ayala Aizpuru et al. 2019). Museums play a crucial role in promoting mental health by allowing visitors to engage with art, history and culture, providing a means of relaxation for the mind. In times of growing mental health challenges, museums worldwide are responding with innovative programmes that prioritise the well-being of their visitors.

Research indicates that participation in cultural activities, such as museum visits, can have a positive impact on reducing stress, improving mood and enhancing overall mental well-being (Šveb Dragija and Jelinčić 2022). The connection between museum spaces and mental health is becoming the subject of in-depth studies, opening up new possibilities for shaping museum experiences that strengthen human welfare. Mindfulness and an approach that encourages a deep understanding of the past are crucial in designing models for interpreting museum houses that not only preserve heritage but also support visitors in physical, mental and spiritual dimensions.

The museum moment that visitors experience during interaction with objects is precisely what mindfulness encourages: understanding oneself through a connection with the past represented by the museum. The research explores the thematic framework and guidelines for contemporary models of interpretation.

Contemporary interpretation strategies enable visitors to not only experience the material aspect of historical architecture but also to comprehensively explore various cultural, heritage and authenticity dimensions at a specific destination, while simultaneously promoting sustainability. The complex messages hidden within house museums can be fully revealed to the visitor through mindful experiencing of heritage, as they cannot be fully grasped solely on a rational level. Establishing conditions for a holistic heritage experience that supports individuals in their physical, mental and spiritual dimensions should be the central priority of every museum.

The hypothesis reads: House museums are spaces where it is necessary to consider a mindfulness approach in shaping concepts of interpretation and presentation.

The article is based on experience and knowledge gained in the last seven years while managing the Žirovnica Institute for Tourism and Culture, which oversees the management of the France Prešeren, Fran Saleški Finžgar, and Matija Čop house museums (birth houses), as well as Anton Janša's apiary, as well as during visits to museum houses across Europe.[2] As part of the research, the author examined contemporary trends in research and studies focusing on museum houses in Europe and elsewhere in the world. Through research, the author explored the aspect of mindfulness and the practice of a process called *Focusing*, which is derived from the concept of mindfulness.[3]

1.1 Methods

This research is grounded in a case-based approach, specifically focusing on the Prešeren Birth House Museum, the first house transformed into a museum in Slovenia in 1939. The project employs a qualitative methodology that includes a thorough examination of historical texts and scholarly

1 Nikola Krstović, in the article *Colonizing Knowledge: New Museology as Museology of News*, warns about the colonization of knowledge. A review of the publication by Peter Vergo in England, *The New Museology*, London: Reaktion Books, 1989, clearly shows that the author completely overlooked the Eastern museological schools with representatives such as Z. Stransek, I. Maroević, T. Šola and others who made significant theoretical contributions (Krstović 2020).

2 Prešeren's and Finžgar's birth houses are monuments of national significance, while Čop's birth house and Anton Janša's apiary are monuments of local significance.

3 Eugene Gendlin (1926–2017) was a contemporary psychotherapist and philosopher who developed a therapeutic process called Focusing. Gendlin detailed the Focusing techniques in his book titled *Focusing*. In addition to Gendlin, other renowned authors, such as Eckhart Tolle, Peter A. Levine and many others, have also written about Focusing.

articles concerning the musealization of the Prešeren Birth House. This analysis is supplemented by a detailed exploration of visitor experiences at the museum, where I have served as the Director of the Žirovnica Institute for Tourism and Culture, the institution responsible for managing Prešeren's Birth House for the past decade.

Additionally, the research includes a comparative analysis of other house museums in Slovenia and abroad. These comparative explorations involve on-site visits, observations, and an analysis of how different house museums implement interpretive strategies, with a particular focus on those that integrate mindfulness into their interpretative models. The combination of these methods allows for a comprehensive understanding of how a mindful approach can enhance the interpretation of house museums, fostering a deeper connection between visitors and the cultural heritage presented.

This methodological approach not only provides insights into the specific case of Prešeren's Birth House but also aims to develop broader guidelines for applying mindfulness in the interpretation of house museums, ultimately contributing to sustainable heritage practices.

1.2 Interpretation of House Museums

The main characteristic of house museums is their inseparable connection between tangible and intangible heritage. These houses represent an important part of the cultural environment or area in which they are located and are recognised as a rich resource for interpreting the history of a specific place. Their value lies in illuminating the social events or private lives that unfolded within them. Museum houses are acknowledged as monuments of significant social and political importance due to their evocative ability to bring the past to life (Pinna 2001).

House museums represent a distinct type of cultural heritage monument, distinguished by the authenticity of a memorial site and time in connection with a famous individual or co-creator. The fundamental conceptual design of a memorial site originates from a space defined by natural and humanistic characteristics. Space, as a phenomenon that is globally stable but can constantly change in detail, holds significant potential for preserving the link between the past and the present. Perceiving the space where a past event has left its mark contributes to understanding its true value, thus objectifying the potential memory (Maroević 2005). This underscores the important social and political role of museum houses, indirectly influencing the relationship with the local community, the preservation of collective memory, and heritage in its original environment.

House museums typically possess all the characteristics and functions of museums, with the distinction that their emphasis is not solely on individual objects but on the holistic heritage and interaction with the artifacts and spirit of the people who lived in the house (Pinna, 2001). The most widespread and well-visited house museums are types known as personality houses.[4]

House museums, in their function as time capsules of the past, carry unique historical, cultural and social value. The most common approaches in presenting house museums are the authenticity approach and the narrative approach, or, according to Butcher-Younghans, those which distinguishe between documentary historic houses and representative historic houses. In the first approach, authentic objects and their authentic arrangement are used, and the aim is that the house is preserved in its original state. In the narrative approach, the story revolves around a person who live in the house, their profession, personality and the period in which they lived. In the interpretation of representative historic houses, in addition to original objects, reproductions, replicas and other museological aids are used.

Every house museum is unique and can be museologically interpreted differently, depending on the concept developed for the house. A concept of interpretation and presentation is prepared based on the type of residence, its valorisation, recognised significance and values, and the established educational and communication objectives, upon which a management plan is developed. Additionally, considerations and choices are made regarding methods and criteria for its restoration, exhibition layout, display techniques, visitor guidance, etc. (Pavoni 2001). Through musealisation,

4 House museums, representing the homes of famous personalities, politicians, literary figures, musicians, etc., have been present in history since the Renaissance period, emerging from the idea of celebrating notable individuals to strengthen local and later national pride (Butcher-Younghans, 1993).

houses transition from the personal and individual sphere to the collective, becoming monuments and museums as part of public cultural heritage. Therefore, the entire process of musealisation, like any heritage process, should be conducted in close collaboration with the local and wider community (Perko 2021 and literature cited therein).

When designing the interpretation and communication of house museums, different challenges arise compared to traditional museums. Due to the nature of the house, where the value stems from the entire collection of objects and their interaction with the people who lived there, a linear museological approach is not sufficient (Risnicoff de Gorgas 2001). Visitors absorb information in a more open and complex manner than in regular museums, as the objects carry a cognitive code associated with everyday life, thus facilitating understanding. More than any other type of museum, a house museum has the greatest power to evoke and create connections between the visitor and the history present within the house itself or that the interpretation seeks to convey. A house museum is exceptionally evocative because it not only contains objects but also encompasses the atmosphere and creative imagination of the people who lived and moved within its walls (Risnicoff de Gorgas 2001).

The mission of house museums is the preservation, exhibition or reconstruction of authentic historical or spiritual atmospheres. Thus they serve as authentic symbols of events, periods and regimes that cannot be manipulated without disrupting the integrity of the house itself (Pinna 2001). House museums reflect the local community and nation, serving as places where collective memory is created and preserved. Within these houses, members of these communities and nations recognise their own identity. In the fast-paced, consumer-oriented life of our globalising world, small museums are increasingly seen by community members and nations as the last refuge from globalisation, symbolically identified as the last bastions of specificity and diversity (Pinna 2001). This calls for consideration of new approaches to interpretation focused on socio-cultural connections to establish communications between societies of the past, present and future (Perko 2021).

The atmosphere in which a visitor finds themselves in a house museum, permeated with their own feelings and emotions, arises from the presence and absence of people who once lived in the house. Houses are perceived as 'true reality', free from any manipulation. It allows the visitor to embark on a journey into a 'frozen' past, where there is an opportunity for self-discovery and learning about the Other, thus reflecting on oneself (Risnicoff de Gorgas 2001). Encountering the past reminds us of our own transience and provides the opportunity and space to determine who we are, who we want to be, and, more importantly, who we are not or who we do not want to become. This establishes an intimate connection between collective and personal memory. House museums can be seen as memory sites in Norin's doctrine, which states that collective memory exists because of memory sites. These manifest in material, functional and symbolic forms. Memory needs memory sites to prevent it from fading (Nosova 2021).

1.3 Museum Environment and Visitor`s Mental Weel-being

The concept of the 'museum prescription', wherein psychiatrists prescribe free museum visits, first emerged in 2018 at the Montreal Museum of Fine Arts and has recently been adopted in five museums in Brussels. This reflects the increasing recognition of how art can provide targeted support to individuals dealing with mental health issues.

In the last two decades, there has been a growing body of evidence supporting the connection between museums and health, particularly highlighting the role of art programmes in supporting mental health (Chatterjee and Camic 2015). However, beyond the role of programmes offered by museum institutions, there is an interest in understanding how the museum environment, including the physical space, can impact individuals' well-being.

In light of international evidence presented in the 2019 WHO report titled *What is the evidence on the role of the arts in improving health and well-being?* (Fancourt and Finn 2019), some pioneering projects have been initiated in Italy, particularly in Piedmont, with the support of Compagnia di San Paolo in Turin. The aim of these projects was not only to evaluate the health benefits of artistic practices but also, more specifically, the connection between the quality of museum architectural spaces and the well-being of visitors.

The Luoghi Comuni (*Common Places*) project was created in response to a call for ideas with the aim of exploring how tangible and intangible aspects of cultural spaces positively impact mental well-being. The project stems from the need to promote the social inclusion of individuals with mental health issues by involving them in museums and cultural institutions. As a primary outcome, Luoghi Comuni provided cultural institutions with a clear and quantitative indicator of the 'gentleness' of their spaces, understood as the ability to make fragile individuals feel comfortable. These results are expected to lead to a reconsideration and improvement of specific features of museum spaces.

The Stedelijk Museum Amsterdam runs a programme called 'Unforgettable', through which it organises guided tours for people with dementia and their families, during which memories, connections and stories are triggered and shared.

In recent years, there has been an increase in participatory and interactive programmes in museums, aiming to improve the well-being and inclusion of visitors facing various challenges, including mental health issues. As demonstrated by examples abroad, it is no longer utopian to consider that in the future, doctors and psychiatrists might recommend museum visits instead of traditional recovery programmes in mental health centres.

1.3.1 Mindfulness in Museums

Mindfulness is a process where one directs more attention to the present moment. It has deep roots in history, reaching back thousands of years. Originating from both Western and Eastern spiritual traditions, today mindfulness has become a universal concept that can be practiced independently of its religious origin (Černetič 2005). Mindfulness is a primordial spiritual concept known in all traditional spiritual practices, but until recently it had not been the subject of extensive scientific research. In the last decade, however, mindfulness has become a central theme, especially in clinical and health psychology and psychotherapy. In the health and clinical context, mindfulness is often addressed in connection with cognitive-behavioural therapy or therapy based on mindfulness principles (Kabat-Zinn 1990).[5]

Through mindfulness practice, we learn to slow down our thoughts, helping to maintain peace and connection with the present moment, thereby reducing stress. The process involves calm sitting and focusing on thoughts, sounds and sensations. An important aspect of mindfulness involves reconnecting with our own bodies and perceiving current sensations, such as sights, sounds, smells and tastes. Another aspect of mindfulness is conscious concentration through the process of controlling awareness of our own thoughts and emotions in the present moment. It is about allowing ourselves a clear insight into the moment, which can positively transform our relationship with ourselves and our lives.

Museums worldwide incorporate various aspects of mindfulness into their interpretation, enabling visitors to connect with the content and objects on a deeper, more intimate level. Some museums, such as the Rubin Museum of Art and the Brooklyn Museum in New York, also integrate various mindfulness-related activities, such as yoga practice in museums, lectures, and workshops on spirituality. The St. Mungo Museum of Religious Life & Art in Glasgow has partnered with the mental health charity Lifelink to offer mindfulness therapies in the museum.[6] Mindfulness programmes at the Getty Museum in Los Angeles, which have been running since 2016, promote contemplative experiences for visitors, thus fostering a deep connection with the artworks.

2 HOUSE MUSEUMS IN SLOVENIA

In Slovenia, houses of personalities represent the most common type of house museums and are categorised as representative historical houses based on their characteristics.[7] The characteristic feature of these houses is the complex process of transforming living spaces into memorial or museum spaces. These houses exhibit objects related to the lives and work of notable figures, such as writers,

5 Mindfulness-Based Cognitive Therapy (MBCT)

6 Charlotte Coates, 2022, What are Mindful Museums and how can they help us with our mental health?

7 The categorisation of house museums in Slovenia is not yet in force. It refers to the categorisation according to Butcher Younghans from 1993.

artists, scientists and politicians, with their biographies usually highlighted as the central theme of the exhibition. This biographical aspect serves as a background for depicting other significant factors, such as the historical period, region or profession. In most of these houses, neither the building nor the furnishings and furniture are authentic or at least not entirely so.

The first publicly accessible house in Slovenia that was converted into a museum (in 1939) was the birth house of France Prešeren in Vrba. Other houses that were converted into museums followed Fran Saleški Finžgar's concept of musealisation, which was implemented in Prešeren's Birth House.[8]

Slovenia faces a lack of museological research and studies related to house museums, which is reflected in their naming and evaluation, as the distinction between individual houses is not clearly defined. In addition to the term 'house museum', in Slovenia these museums are also referred to as 'memorial house', 'birth house', 'literary museum', 'historical house', 'biographical museum', 'ethnographic house', 'homestead', 'memorial room', etc. They are often labelled as a museum, open-air museum or monument.

The problem not only lies in the naming of the houses but is also reflected in their interpretation, exhibitions, and the conservation regimes assigned to them. A brief overview of contemporary museological approaches easily reveals that the concepts of interpreting houses of famous individuals, i.e., representative historical houses, are outdated in Slovenia. Even where a good presentation is executed, these houses are not sufficiently integrated into community life and do not adequately serve scientific, educational and tourist objectives. The challenges primarily stem from financial and technical limitations, a lack of professional staff and especially a deficiency in knowledge, understanding, passion and implementation (Domšić 2014). There is also a noticeable lack of collaboration among related institutions and an absence of museological expertise in the development of comprehensive interpretations.

Prešeren's Birth House and the Visitor Experience

Prešeren's Birth House represents a representative model of house museums in Slovenia, being the first of its kind and the most visited museum of this type in Slovenia. Since 2011, it has also been declared a cultural monument of national importance.[9]

The house can be classified among those of personalities, and, according to categorisation, it falls under the category of a representative historical house, as it contains few authentic items. Using substitute furnishings from that time or replicas, the living spaces depicting everyday village life in the 19th century are exhibited. Visitors can explore six small rooms in the house: the entrance hall, the black smoke kitchen, the living room, the pantry, the exhibition space, and the museum shop. The interpretation of the house focuses on acquainting visitors with the greatest Slovenian poet, France Prešeren, who was born in the house and spent part of his youth there.

The concept of presenting Prešeren's birth house does not significantly differ from the practices used in other houses of personalities throughout Slovenia. Upon entering the house, a guide leads visitors through the living spaces in a short time (15-20 minutes), acquainting them with the house and its most important and interesting items. Guests are encouraged to explore the spaces independently, and the guide is available for any questions. In the exhibition space, visitors can watch a 7-minute animated film that describes the work and life of France Prešeren, after which they can explore the exhibition on their own. The exit from the museum leads through a small shop, where guests settle the entrance fee. Visitors typically allocate between 30 and 45 minutes for the entire visit.

Visitors began coming to Prešeren's Birth House even before it was converted into a museum. Two guestbooks from prior to 1939 have been preserved (Finžgar 1949). Prešeren's Birth House in Vrba gained a special status in the celebration of the poet Prešeren in 1872 when a crowd of 6,000 people, led by members of the newly established Society of Slovene Writers, made a pilgrimage to

8 Other houses that followed this pattern in Slovenia include: Finžgar's Birth House, Čop's Birth House, Jalen's Birth House, Gregorčič's Birth House, Cankar's Birth House, Jurčič's Birth House, etc.

9 Decree on the Proclamation of Monuments in the Village of Vrba in the Upper Carniola Region as Cultural Monuments of National Importance.

Vrba.[10] Records testify that visiting the house where the greatest Slovenian poet was born represented a special, almost spiritual experience for the visitors (Finžgar 1949).

Despite the fact that the house was not arranged as a museum but was like any other living space of that time, while sitting in the room where Prešeren was born, the visitors also experienced a spiritual connection. Such an experience, where time seems to stop and a profound feeling or perception overwhelms the museum visitor, refers to a special moment when the visitor, in interaction with an object or a work of art, undergoes an emotional or spiritual connection. This experience can be extremely significant for visitors as it allows them a deeper understanding and connection with the object, history and space, thereby influencing their personal growth, thinking and perception of the world.

In a rapidly changing postmodern world, we should question how these house museums can remain relevant in the contemporary context. Nevertheless, we must not forget the essence that is based on the holistic preservation of the heritage and cultural-historical values of these houses. By striking a balance between tradition and modernity and involving the public, museums can remain attractive and vibrant, not just as museum institutions but as spaces that convey the stories of the past and provide visitors with the most comprehensive experience (Maroević 2020).

3 RESULTS AND DISCUSSION

Interpretations and experiences of house museums cannot be understood solely on a rational level, as they intertwine between the symbolic and scientific, conscious and subconscious, the living and the dead, the present, past and future, between narratives and anecdotes, and between myth and truth. Therefore, to us, the visitors, the meaning of messages is revealed through a network of symbols as elements of transformation, altering our perception of time, space, ourselves, and the circumstances in which we find ourselves.

House museums can be perceived as theatres of dreams, where fiction is portrayed as reality (Risnicoff de Gorgas 2001). Although house museums may seem almost untouched and primarily draw their atmosphere from authentic objects belonging to its former inhabitants, the fact that they are organised as museums clearly indicates that their goal is not history or life itself, but rather the representation of history or life; not the past itself, but its portrayal, thus enabling a reflection of the present (Pinna 2001). On the one hand, such a complex interpretation within a house ensures a mindful understanding of the era and those who lived in the house, using original objects, and whose spiritual dimension is still felt. On the other, meanwhile, museum or cultural messages primarily provide scientific data assigned to the house and objects by conservators, museologists and researchers.[11]

In the context of house museums, the value of an object does not solely derive from its stylistic, artistic or technological qualities but rather from its narrative capacity that conveys complex messages. Nevertheless, the symbolic value of objects in a house or on display does not originate from the objects themselves; it is a product of the interaction between the subject – memory and imagination – and the exhibition, simultaneously representing concrete reality and its representation. Visitors embark on a journey through a series of symbols, attempting to find connections and meanings, with each visitor becoming the author and player of their own story (Pinna 2001). The communication of heritage messages directly introduces cultural heritage into the real world of people and their communities, integrating it as a central element of the social and spiritual environment. Thus, heritage transforms into a key component of the quality of life, equally important as water, air, food and shelter (Maroević 2020, 258).

10 Mass visits to Vrba on 3rd December (Prešeren's birth date) and 8th February (Slovenia's national cultural holiday) are still referred to by some today as a pilgrimage.

11 According to Ivo Maroević, museological or cultural messages in exhibitions are realised in two directions: scientific, which is analytical in nature, and cultural, which is synthetic. It is the cultural aspect that allows secondary meaning to reality and where values, sense, significance or needs are reflected, gaining full validity in the exhibition (Maroević, 2020, 266).

This can be vividly observed in the case of the perception of Prešeren's birth house, prior to its transformation into a museum. Despite the house not being set up as a museum at the time, visitors experienced it at an intimate, spiritually mindful level, eliciting powerful identity feelings and authentic emotions and creating a profound spiritual experience. The authentic spaces, albeit without authentic objects and exhibits, wove a special transcendent connection between the historical figure and the visitors' own memories and feelings.

The enchantment of house museums stems from the mindful perception of symbolic, cognitive and scientific messages assigned to objects through museologically-shaped narratives. An object possesses multilayered, symbolic meanings that visitors recognise based on their own experiences, memories and psycho-social needs. The interweaving of complex messages can only be revealed to the visitor through mindful heritage experiences because they cannot be fully grasped rationally. Creating conditions for experiencing heritage in a holistic way that supports humans as physical, mental and spiritual beings should be a priority for every museum. Prešeren's Birth House, as visitors experienced it prior to its transformation into a museum, can serve as inspiration for contemplating new approaches to interpreting how to revive the spiritual or mindful dimension of the visit and the connection with history, and the museum means to achieve it.

4 CONCLUSION

The interpretation of house museums has recently attracted a lot of attention from the public and experts, as evidenced by the increasing number of professional literature, symposiums and professional associations worldwide. They are recognised as spaces of memory, crucial for creating and preserving local identity. In line with the needs of contemporary society, they are expected to fulfil educational tasks by expanding people's horizons during visits and providing a pleasant and useful way to spend leisure time. These are some of the conditions that allow heritage to become socially relevant and maintain its role in the future as well (Šola 2003).

It is equally important to seek and discover ways in the interpretation and presentation of houses that will incorporate and consider spiritual aspects and mindful perception of spaces and objects. Museum houses must not become merely a means for learning about the work and lives of the famous individuals who once lived in these houses. They should certainly not become places of entertainment, which has become a guiding principle in museum market thinking and could, in the long run, devalue the spaces of authentic memory. It is necessary to treat these houses as authentic and autonomous institutions that, in addition to a linear presentation, offer a broader, humanistic perspective that is more relevant and inclusive for the contemporary local and wider public. Overly structured discourses that lead to 'correct' observation actually strip museumised houses of their museum quality as safe, free spaces where visitors explore their inner world in interaction with museologically shaped messages of objects representing a multi-layered and multi-meaningful past (Moreno and Gerardo 2000).

The pace of today's life, marked by ubiquitous speed, consumer pressure and a neoliberal system, leaves profound effects on the mental health of the population. In such an environment, where everyday life is constantly subjected to stress and pressure, museums have become important havens for visitors. The role of museums is not only seen as preservers of heritage but also as spaces that provide a retreat from the hustle and bustle of daily life, offering an emotional, intellectual and spiritual break.

House museums, with their unique character and history, automatically carry the power to become a refuge for those seeking meaning, silence and a connection with their own identity. It is crucial to develop interpretation and programmes that not only bring history to life but also actively support the mental well-being of visitors. Mindfulness is becoming a crucial aspect in shaping museum experiences, as it allows visitors to delve into themselves, be aware of the moment and establish a holistic connection with the past.

In circumstances where society is exposed to the pressures of modern life, the development of museum programmes and interpretations that promote mental health is of exceptional importance. Museums not only preserve cultural heritage but also become spaces of comprehensive support, positively impacting individuals and the community as a whole.

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1.08 Objavljeni znanstveni prispevek na konferenci
Published scientific conference contribution

SUPPORTING DIGITAL SKILLS EDUCATION FOR PEOPLE WITH INTELLECTUAL DISABILITIES FROM THE PERSPECTIVE OF SERVICE PROVIDERS

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ABSTRACT

To ensure that digital technologies and technological development serves the needs of all, we need to support people with intellectual disabilities (ID) in acquiring digital skills. The digital exclusion of this population is largely the result of a lack of adequate education and environmental support. The study aims to investigate what opportunities adults with ID have to acquire digital skills, i.e. to examine the significance, requirements, challenges and potential for digital participation and education. To gain a deeper insight, focus group interviews were conducted with professionals from several service providers. The results of the qualitative analysis show that there is a lack of educational curriculum and systematic training in digital skills. Professionals mostly provide individual situation-based support depending on the everyday needs. In addition, participants pointed out other various challenges associated with the use of digital technologies by people with ID, such as online risks, family support, lifelong learning, motivational aspects. This suggests that not all people with ID have equal opportunities to participate in the digital world, as the acquisition of digital skills depends on the knowledge and goodwill of supporters and family. Based on the obtained results, a support framework and guidelines for improving digital education for people with ID are presented.

***Keywords**: Digital inclusion, Digital education, People with intellectual disabilities.*

1 INTRODUCTION

Today, we can look at digital technology as a tool that enables connection and inclusion in all spheres of a society's life. Today, information and communication technologies (ICT) are creators of interactions between individuals. For most of the people this has provided many advantages, like unlimited access to information, possibilities for socializing, entertainment and participation in society (Lussier-Desrochers et al. 2017). However, it seems that there are some digital inequalities between people and their possibilities to participate in digital society. People with intellectual disabilities (ID) are left behind, not being able to participate in digital world. They are facing multiple barriers in the possibilities of using digital technology, which then lead to social exclusion. The awareness of digital exclusion has been more and more recognized, but we still do not have adequate answers and measures to prevent it. Digital exclusion of this population is largely the result of a lack of adequate education and environmental support. According to Murphy (2021) the exclusion of people with ID has a harmful effect on their health, wellbeing, and inclusion. So, those people who are at high risk of social exclusion are also those in the greatest need of digital inclusion (Helsper and Eynon 2010; Chadwick et al. 2013). The studies show that it is important to create opportunities ensuring that people with ID and those supporting them possess the digital skills to use technology to their advantage (Martin et al. 2021; McCausland et al. 2021). This is difficult to achieve due to inaccessible development of digital apps (Martin et al. 2021; McCausland et al. 2021). This suggests that people with ID do not have equal possibilities to be digitally included, as they depend on the supporters and family members.

Therefore, the aim of this research is to investigate what opportunities adults with ID have to acquire digital skills, i.e. to examine the significance, requirements, challenges and potential for digital participation and education.

1.1 Use of digital technology and benefits for persons with ID

Building social support networks is very important for developing their sense of security, belonging, self-worth and positive self-image, giving them the possibility to access and participate in community activities (Masnjak Šušković et al. 2023). Technology can help raise the level of autonomy in performing daily activities through learning new skills, e.g. sending e-mails (Cihak et al. 2015). Research among adults with ID, shows that self-determined use of mobile technology and apps was associated with improved social inclusion (Martin et al. 2021; McCausland et al. 2021).

Research data from Croatia (Masnjak Šušković et al. 2023) shows that most of the people with mild and moderate ID who are involved in daily supporting programs (NGOs and institutional) have their own mobile phone/smartphone. On regular basis they have access to computer, laptop or tablet. In everyday life they mostly use phones/smartphones, and other mentioned technologies at least once a week. They mostly use digital technology for social involvement and connections with other, via different social media apps (i.e. Facebook, WhatsApp). Most participants had some basic digital using skills, like turning on a computer, use keyboard (type name) and search on Google, but only 31,1% can search and understand information on other sites and 37,7% can use passwords. Data implicated that significant number of people with ID could improve their basic skills and become more independent in using digital technology. Data from other studies also show that actions that require more reading or writing are a problem (Harrysson et al. 2004; McClimens and Gordon 2009; Shpigelman and Gill 2014; Molin et al. 2015).

Data from different countries shows that when they use Internet it is primarily for the purpose of communicating with other users, through social media (Shpigelman and Gill 2014; Löfgren-Mårtenson et al. 2015; Molin et al. 2015; Lussier-Desrochers et al. 2017; Martin et al. 2021; McCausland et al. 2021; Heitplatz et al. 2022). They also largely use the Internet for entertainment (video or picture entertainment), daily news and events (Sallafranque St-Louis 2015 in Lussier-Desrochers et al. 2017). Social networks are the most common way of spending time on the Internet (Masnjak Šušković et al. 2023). Social networks can also be a good way to raise awareness about people with disabilities and source for breaking down the prejudices (Bonilla et al. 2022; Johansson et al. 2021).

Some of the benefits of digital inclusion from the perception of people with ID themselves, are sense of belonging, ability to communicate with others at any time, connecting with people with-

out disabilities (Heitplatz et al. 2022), easier access to online than live events (Lawford et al. 2023), maintaining social relationships (Bakkum et al. 2021) and the possibility of self-expression (Chadwick et al. 2013; Sheehan and Hassiotis 2017).

1.2 Challenges related to digital inclusion of persons with ID

Despite many benefits of using digital technologies there are many challenges people with ID encounter in understanding and using technology (Chadwick et al. 2013; Constantino et al. 2020; Lake et al. 2021; Chadwick et al. 2022).

Lussier-Desrochers et al. (2017), defined a model of five digital access dimensions in digital inclusion of people with ID: (1) Dimension relating to devices and Internet access, (2) Sensorimotor dimension, (3) Cognitive dimension, (4) Technical dimension, (5) Dimension relating to social codes and conventions. In the first dimension, the issue of ownership and availability of digital devices appears. The literature review analysis shows two main ways that people with ID can access these devices: 1. ownership through purchase or donation and 2. equipment loan from another person, organization or lending program. Possibilities of owning a digital devices and connection to Internet, depends on financial status of a person. People with ID are often having low incomes and are at risk of poverty, because they depend on financial assistance from the state. Regarding second dimension, co-occurrence of ID and of sensorimotor limits is scientifically documented (Chadwick et al. 2013; Lussier-Desrochers et al. 2017). These limits have repercussions on the performance of basic actions required to operate the devices. For example, a lack of upper-limb coordination, prehension or dexterity can make it difficult to use a keyboard or a mouse (Cleaver et al. 2009; Wong et al. 2009; Dagenais et al. 2012 in Lussier-Desrochers et al. 2017), motor constraints often limit reaction time and execution speed, making certain activities difficult to perform because of time restrictions (e.g. filling out a form or shopping online) (Carmeli et al. 2008; Dagenais et al. 2012 in Lussier-Desrochers et al. 2017). In third dimension, various cognitive skills affect the possibility of usage of digital devices. Interaction with technologies requires several cognitive components and the list of necessary skills also includes reading and writing skills (Michel et al. 2006; Rivas-Costas et al. 2014 in Lussier-Desrochers et al. 2017). These cognitive components are needed for many digital actions, e.g. search for relevant information, understand digital symbols etc. In fourth dimension, they emphasize the technical problems and risks for equipment. The use of technological devices requires periodic solving of different technical issues (e.g. installing new programs, updating software, antivirus protection etc.). It can be too complex for people with ID and solving these problems often requires financial investment. Regarding final dimension, participation in the digital society requires an understanding of new social interaction rules and conventions. Not understanding these rules could expose them to new forms of victimization or exclusion (Lussier-Desrochers et al. 2017). Considering these dimensions and challenges, it is visible that that an increasing gap is being created between other citizens and persons with ID (Chadwick et al. 2013).

One of the reasons for this gap is also in perceived risks of Internet access and use (Chadwick et al. 2016; Seale 2014). Data from studies show professionals often give online guidance to people with ID, without proper guidelines and education (Chiner et al. 2017; Ramsten et al. 2019; de Groot et al. 2022; de Grott et al. 2023). Their support strategies are often based on individual perceptions like those mentioned above (Löfgren-Mårtenson et al. 2018; Ramsten et al. 2019; de Grott et al. 2023). Due to these perceptions of supporters (family members and professional staff), they often place limits on people with ID in terms of digital education and support. Professionals have a responsibility to promote digital inclusion for people with ID without controlling or monitoring their online activities, although this may apply more strongly for adults than children and young people (Borgström et al. 2019; de Grott et al. 2023). People with ID have the right to be digitally included and have privacy in their online activities, but they need the support of others on this same path. So, when we refer to people with ID who are digitally active, the main question is how to guide them on this path.

Other challenges regarding supporters from the organizations are lack of their own digital education, training, and organizational guidelines (Seal 2014; Chiner et al. 2017; de Grott et al. 2023). Furthermore, the age of people with ID as well as their living conditions, can affect their digital inclusion. The study of Murphy et al. (2019) shows that older people with ID are in majority remaining excluded from digital world. Access and use of technologies is especially limited for those who

are living in residential settings. They also concluded that not only people with ID need support in acquiring digital skills, but also staff in institutions that support and foster the use of technologies. Apart from the challenges mentioned above, Chadwick et al. (2022) points out socio-political arise as one of the barriers, due to the lack of government actions to promote digital inclusion.

1.3 Digital education programs and approaches to people with ID

Considering the known challenges, individually adapted digital education is required to enable people with ID to be included in the digital world. Digital technologies can serve populations when these populations are included in the solution design process (Kluge and Hamilton, 2021). Experiences and views of people with ID can and should be the basis for creating educational and other support services (Randt 2011). The application of an inclusive approach is of particular importance in this area (Masnjak Šušković et al., 2023). One of the examples of an such approach in practice is "DigiAcademy" program, developed within the project "Digi-ID PLUS – Digital skills education to support better health and social inclusion outcomes for adults with ID" project granted by European Institute of Innovation and Technology (EIT) Health. The project is headed and designed by Dr Esther Murphy from Trinity College Dublin, The University of Dublin. The project is bringing together experts of various profiles from five European countries. The main quality and value of the project is co-creation of solutions together with people with ID, their families and professionals, all participating in its creation and design (Murphy et al. 2022). Till today the first version of accessible digital education platform "DigiAcademy" is made in Ireland and is still a work in progress. On this platform persons with ID can learn by themselves (or with support) how to search on the Internet, use Google, open a Gmail account and send e-mail, open Facebook, use WhatsApp etc.

Samant Raja (2016) in report about bridging the disability divide through usage of digital technologies, gives examples of accessible technology solutions people who have cognitive disabilities can use: (1) Text-to-speech rendition and speech/voice output; (2) Touch screen devices; (3) Mobile apps and online resources that mimic Augmentative and Alternative Communication (AAC) devices, electronic picture boards for communication; (4) Organization and memory aid tools such as online calendars, note taking, alerts; (5) GPS-facilitated navigation; (6) Use of multimedia to aid comprehension i.e., videos, graphics. These solutions are possible to use by people with various cognitive disabilities, neither of mentioned solutions aren't made especially for people with ID. Some of them can surely be useful, but only if they are available to users. The cost of assistive technologies can be a barrier to their use (Samant Raja 2016). Smart devices (iPad and Android based tablets) can be configured to offer similar functionality with the combination of in-built accessibility features and free or paid mobile applications (Foley and Ferri 2012; Samant Raja 2016). Some computer software programs (Microsoft Windows and Mac OS) come with in-built accessibility settings that a user can activate including text-to-speech, voice recognition, preferences for mouse and keyboard navigation, contrast settings, and magnification. Also, individuals with a license for Microsoft Office 2010 and higher or a subscription of Office 365 can download Window-Eyes, a leading screen reader (GW Micro 2014 in Samant Raja, 2016). Therse features are at no extra cost beyond the cost of the operating system.

Regarding the technical and security issues, there are currently some sites that provide guidance regarding digital technologies (e.g., Habilomedia.ca), but unfortunately, they are not adapted to the people with ID. Although acquiring technical skills is an important step in promoting access to digital technologies, few concrete actions intended specifically for people with ID have been performed to date (Lussier-Desrochers et al. 2017). In designing technologies, the technicians should consider universality of design (Lussier-Desrochers et al. 2017). To overcome the problem, one of the solutions is to involve persons with ID in the designing process (Hoppestad 2013; Lussier-Desrochers et al. 2017; Kluge and Hamilton 2021; Murphy et al. 2022).

Accessible ICT features can also benefit many persons who may not identify as having a disability, i.e. senior citizens, people with low literacy, and people who may not know the dominant language (Samant Raja 2016). Considering the current situation with digital inclusion of people with ID, it iss very important to start working on appropriate ways of adapting digital technologies. Therefore, the aim of this research is to investigate how people with ID use digital technologies and how are they supported on that path.

2 PURPOSE AND GOALS

The study aims to investigate what opportunities adults with ID have to acquire digital skills from the perspective of their service providers. Focus is on the support that people with ID receive in using digital technologies and acquiring digital skills.

Research goals were set to determine: (1) the importance of digital inclusion for people with ID; (2) prerequisites for digital education and participation of people with ID in practice.

According to the aim of the research, by applying qualitative research methodology, the following research questions were defined:

1. How adults with ID use digital technology?
2. What support do adults with ID receive in using digital technology and in acquiring digital skills?
3. What challenges do service providers encounter in providing support to adults with ID in the digital area?
4. What should be considered in the development of future support and digital skills education programs?

3 METHODS

In this research qualitative analyses were applied aiming to detect what opportunities adults with ID have, to acquire digital skills, from the perspective of their service providers, i.e. their leaders and professionals. This research is the part of the broader study conducted in Croatia which was carried out as a part of the EU project "Digi-ID PLUS". Four focus groups were conducted online, using the semi-structured interview method. Each group had 3-6 participants, 16 in total, and lasted about hour and a half. A qualitative analysis was carried out according to the minutes and audio recordings of the focus groups. There were four organizations for persons with ID for Croatia participating in the research (Center for Rehabilitation Zagreb, Center for Provision of Services in the Community Ozalj, Ozana Center – Daily Center for Rehabilitation and Work Activities, Croatian Association of Societies of Persons with Intellectual Disabilities).

Sixteen participants (head of the institutions and professionals) from mentioned organizations were selected using the method of purposive sampling, as the organizations participated in the implementation of the entire "Digi-ID PLUS" project. Organizations provide services of counselling and support programs (institutional accommodation and supported housing; full day and half day stay; education and training; and supported employment). Three of them were government organizations and one was NGO. There is a total number of 664 professionals working in these organization and providing support for 2149 people with ID in Croatia. Before conducting the focus groups, participants were presented with the topic and the purpose of the research, they were informed about the project and gave their voluntary consent. Out of the 16 participants (female= 14; male= 2; aged 26-63), 3 of them where leaders of their organization and 13 of them were professionals working with people with ID.

The data was analyzed by thematic analysis (Braun and Clarke 2006). In accordance with our research questions, four thematic areas emerged. According to thematic areas, framework topics were determined from the focus group transcripts. The relevant statements of the participants were coded and classified under the appropriate topic. From each topic, corresponding categories were derived.

Research was carried out with the ethical permissions and positive opinion provided from the Ethical Committee of the Faculty of Education and Rehabilitation Sciences, University of Zagreb. Also, the ethical permissions were gathered from all the partner organizations in which the research was carried out. In all parts of the research, anonymity and protection of participants' personal data were guaranteed.

4 RESULTS

In this chapter, results from the focus groups will be presented. These qualitative results are presented according to the thematic areas, which correspond to research questions (see Table 1). Topics within each thematic area are bolded and participants are numbered (for example, in P23, 2 is the number of focus group and 3 is the number of participant).

Table 1. Thematic areas and topics from the research questions

Using digital technology by people with ID Research question 1 (RQ1): How adults with ID use digital technology?	Two topics were obtained from RQ1: *Significance of acquiring digital skills and Access to digital devices and Internet.*
Providing support to people with ID in using digital technology Research question 2 (RQ2): What support do adults with ID receive in using digital technology and acquiring digital skills?	Five topics were obtained from RQ2: *Informal support, Digital topic that requires support, Staff education, Educations as part of the short-term projects and Material resources.*
Challenges in providing support Research question 3 (RQ3): What challenges do service providers encounter in providing support to adults with ID in the digital area?	Seven topics were obtained from RQ3: *Parents-related challenges, Digital devices are still not available, Personal traits of people with ID, Complexity of acquiring new skills, Inaccessibility, Online threats and Insufficient resources of service providers.*
Development of further support and education programs Research question 4 (RQ4): What should be taken into account in the development of further support and digital skills education programs?	Six topics were obtained from RQ4: *Teaching methods, Education of supporters, Easy-to-understand digital content, Developing educational programs, Teaching purposeful skills and Responsible for teaching digital skills.*

Within thematic area **Using digital technology by people with ID** two topics were obtained:

(1) The first topic that arise within this thematic area is **the significance of acquiring digital skills**. Service providers believe that having adequate digital skills is important to adults with ID for communication and access to different contents and services. They believe that the development of digital skills can positively contribute to person's independence, social inclusion and self-image. A participant said: *"Acquiring these digital skills would mean a lot for their lives, because they would be included in society. The parents would also have a better image of them... since they are very interested in it, they would be able to show that they can and they could even help their parents in some things. They would have a better self-image and feel better" (P11).*

(2) When it comes to the second topic, **access to digital devices and Internet,** there are differences among people with ID. Almost all participants agree that majority of people with ID have their own smartphones and Internet, but they do not have much experience in using computer or laptop: *"Our people rarely have laptops. If anyone has, it's their parents' laptop. They use mobile phones the most" (P33).*

Within thematic area **Providing support to people with ID in using digital technology** further five topics were obtained:

(1) People with ID mainly receive **informal support** while using or learning about technology and this is the topic participants talked about most of the time. The support depends on initiative and goodwill of staff, who provide individual situation-based support, as a part of their daily work: "*Most of the support occurs when the user doesn't know something, or would like to learn something, then they ask us to help them. So, nothing has been established, we still don't have anything in our plans and programs" (P22); "Most of it depends on us employees, on our skills, creativity, how we will transfer our knowledge to our users" (P12).* A participant mentioned that teaching new digital skills is carried out through person-centred planning.

(2) **Digital topic that requires support** the most is online security, as confirmed by participant's statement: *"We are now trying to prevent some dangers or misuse of it, so it is certainly important and we pay very, very much attention to security" (P32).* Other activities that people with ID need support in are using social media, sending messages, using PC, online employment activities and sending e-mails.

(3) Important factor in providing support is the **staff education**. Participants believe that they have sufficient digital skills to offer basic support as a team or at least can direct user to other colleagues who are more educated: *"We have a colleague who knows more about it, and then we refer users to him when they want to know more" (P42).*

(4) People with ID do not attend regular computer education organized by service provider, or the third party, but some of them are periodically involved in **educations as a part of short-term projects**.

(5) Beside staff support, organizations also **ensure material resources**, i.e. digital devices and internet to their users. All organizations enable connection to the Internet and have one or few joint PCs for users in their facilities, due to their limited financial opportunities. A participant said: *"When it's important to someone, then we collect donations or secure it through other means, but for users to whom it's not so important, we don't provide devices" (P41).*

Within thematic area **Challenges in providing support** seven topics emerged:

(1) Firstly, there are **parents-related challenges**. Parents often limit adults with ID, treating them as children, underestimating their capabilities and not seeing benefits of using technology: *"This problem with the Internet is mainly related to the restrictions by parents because for some reason parents don't think their adult children need it or don't want that they use internet... parents perceive them as children" (P12)*. Moreover, their own digital skills are low, which makes it difficult to control online activities of their children and helping them.

(2) Furthermore, the majority of people with ID have mobile phone as previously stated, but for some of them **digital devices are still not available**, especially when it comes to laptops and computers. A participant emphasized: *"Not everyone has a computer, laptop, nor even cell phone, and it wouldn't make sense that they go to the education to learn how to use a laptop if they don't use this knowledge because they don't have a laptop" (P31)*.

(3) The third group of challenges in technology-related support are **personal traits of people with ID**: age, limited cognitive abilities and the lack of motivation for acquiring practical digital knowledge useful in everyday activities: *"... for example, you need to look at the bus schedule, most of them are not interested in that" (P13)*.

(4) There is also a problem of **complexity of acquiring new skills** because of the need for continuity and long-lasting process, which is sometimes difficult to enable: *"It's quite difficult because it requires practice, so it takes a lot of time for a person to learn, for example, how to use a mouse, how to click" (P11)*.

(5) Participants discussed a lot about the **inaccessibility** in different contexts. They think that digital devices and contents are not sufficiently accessible to people with ID, especially to those with greater difficulties. Also, there is a lack of education in digital skills:*"There is no regular computer workshop that people with intellectual disabilities could attend" (P42)*.

(6) A lot of challenges in providing support emerge from the issue of **online dangers**. People with ID often do not recognize potential risks and inadvertently engage in dangerous activities out of a desire to communicate and make new friends, at the same time unaware that someone is trying to harm them. A participant remarked: *"It may be difficult to explain who their real friends are and who are their friends only on social media, what kind of content is ok to publish, what kind isn't, and that some things they share with real friends should not be shared with friends on social networks" (P23)*. Visiting porn sites, spending money and cyberbullying are other categories within this topic mentioned by participants.

(7) The final barrier is **insufficient resources of service providers**. Digital skills of some staff, particularly older ones, are very poor, or they do not recognize benefits of digital technology, meaning that users with ID do not receive adequate support when these staff are on shift. A participant reported: *"Some staff is uninterested, unmotivated and underestimating towards people with ID, and deny them the opportunity to even come in contact with digital technology" (P43)*. There is also a lack of material resources because organizations have no regular funding to purchase digital devices for users, so they rely on projects or donations.

Within last thematic area **Development of further support and education programs**, six topics emerged:

(1) The participants suggest different **teaching methods** in digital education: explanation, demonstration, repetition, written instructions, learning by experience, creative techniques. They suggest an individual approach and emphasize the importance of using interests of the individual in teaching: *"We use their interests, guide them how to achieve something more easily by using digital technologies" (P42)*; *"Motivation and connecting actualities in person's life with technology is always a winning combination" (P43)*. One participant also sees peers as a great motivation for acquiring new skills.

(2) In addition to training programmes for people with ID, **education of supporters,** i.e. parents and staff, is also needed. Computer literacy and keeping up with trends are critical in providing appropriate support today.

(3) **Easy-to-understand digital content** also needs to be created: *"It would be useful to have a simple website about local events. It might be easier for them if there was something on a weekly basis, for example, on Wednesday you have this movie in the cinema, in the library there is this workshop etc." (P22)*.

(4) When **developing educational programs**, it is important that they are systematic and adapted to people with ID. A participant stressed out the importance of developing a curriculum: *"Perhaps a curriculum should be created, a finished product for us who work with people with ID and it should be sent to all associations" (P32)*. Other participant believes that accessibility of programmes can only be achieved if people with ID, as target users, actively participate in the co-creation process: *"I think that it's impossible to make any educational program inclusive and accessible if people with ID are not included in the design process from the very beginning. I appeal that all institutions or someone who develops any form of education, truly include people with ID before writing the program, ask what is important to them, how we can help and support them etc." (P43)*.

(5) The focus of education should be on **teaching purposeful skills**, which means that person can apply them in everyday life: *"These life skills are a priority, something that contributes to greater independence, because that's the goal we're all trying to achieve at the end of the day" (P12)*. It is also important to educate about internet safety.

(6) The participants had different ideas about **who is responsible for teaching digital skills**: the family, educational institutions or service providers, but in the end, everyone agreed that all people in the circle of support should have this responsibility. One participant shared interesting thought: *"We don't go to special colleges to use Facebook, and then, on the other hand, we always have the need to treat people with ID, to design some special programs. I think that for the general population, we all learned spontaneously or someone taught us in our everyday life, we didn't go to any special courses for most of the things we use in our everyday life" (P43).*

5 DISCUSSION

Research results are showing that the professionals recognize the importance and benefits of using digital technology for the lives of people with ID. In addition to providing access to different content and services and the possibility to communicate with others, it also contributes to socio-emotional well-being, increases social inclusion and a sense of belonging. Developing digital skills can have a positive impact on people's independence, self-image and self-satisfaction. Similar has also been reported in other research (Martin et al. 2021; McCausland et al. 2021; Bakkum et al. 2022; Heitplatz et al. 2022; Masnjak Šušković et al. 2023), giving us a confirmation on benefits of digital inclusion.

The benefits of digital technology, which facilitate and enrich the lives of both people with ID and those around them, are the reason why service providers (supporters) have been paying increasing attention to the digital area in recent years. However, an important finding of this study is that support in organisations is mostly informal and situational and individually provided according to the wishes and interests of the users. There is no regular and systematic training either in the community or in the organisations, but at best occasional workshops in which some users participate as part of the organisations' projects. Such training is not a permanent solution, as it is only short term, and it ends with the project. The problem arises when this is not done continuously and frequently, so people with ID don't have the opportunity to practice digital skills on daily basis.

An often mentioned challenge in providing support is Internet security and the inability to control what kind of online activities a person participates in, which is a frequent reason for parental restrictions. People with ID often unintentionally engage in dangerous online activities because of the desire to make new acquaintances and to be included in the digital world like everyone else. Due to bad experiences with online fraud and abuse, it is not uncommon for parents take protective measures. It is necessary to simultaneously work on educating people with ID and their supporters and family members about online security. Also, it is very important to build trust with the person with ID so that we can talk openly about the online activities in which the person participates. Finding the line between protection and freedom can be very challenging (Chadwick 2019; de Groot et al. 2022; de Groot et al. 2023). According to Molin et al. (2015), parents and teachers express anxieties about online risks. Teachers were concerned regarding isolation, comprehension of internet content accuracy, and naivety. Parents were concerned about trying new things, being too trusting and, unable to detect deception.

In addition, parents and supporters who are in daily contact with persons with ID often do not recognize the benefits of digital technology and believe they don't need it, and are sometimes computer

illiterate themselves, so they cannot help a person even if they want to. Although there are tools for adjusting the use of programs and applications on computers and mobile phones, supporters are often not familiar with it, since they are not sufficiently digitally literate. Participants agree that it is necessary to educate support staff, and some even point out that basic digital skills should be part of the requirements when recruiting staff.

It is common that service providers (organizations) do not have resources to educate their employees and users in digital technology. The funds that organizations have, especially NGOs, are often insufficient even for day-to-day programs, so other priorities are set against investment in digital literacy. The same problem arises with the purchase of laptops and computers for their users. People with ID usually lack experience in using computers and laptops. During their stay in the organization, users have access to computers and laptops, but at home they often don't have other digital devices than mobile phones. They cannot practice their digital skills at home. In addition, mobile phones are easier to use, which may also be the reason why they are used more frequently compared to computers. Although organizations provide access to computers in their facilities, the devices are shared, so there is one device for a larger group of users. Participants believe that people with mild disabilities generally have no problems accessing and using consumer technologies, but state that digital tools and devices are not sufficiently accessible or adapted for people with greater difficulties.

Therefore, although organizations and people often may have a technological device donated to them, it is very probable that they will not have the financial means to pay the additional usage costs for maintaining the devices, updating software, operating system, antivirus program etc. (Lussier-Desrochers et al. 2017). Equipment given through donations are often obsolete and prone to technical problems, which could lead to their underusing. Also, people with ID need guidance with these processes, which are often cognitively complex (Dagenais et al. 2012 in Lussier-Desrochers et al. 2017).

Owning a digital device is the first prerequisite for digital education. If a person does not have a computer at home, it makes no sense to include them in a computer workshop, as they will not be able to apply the learned skills. Accordingly, participants suggest individual support for a particular person based on individual assessment. Even though people with ID want to use technology mainly for fun and communication, the focus of training should be on practical, everyday skills, that can be achieved gradually by linking digital activities to the individual's interests. They believe that the existing educational offer in the community is not suitable for people with ID and point out that it is better to organize specific educations for them, adapted to their abilities. Supporters express the need for tools and a framework for education of users, as they currently haven't support in this area. For this reason, a curriculum and systematic training should be created. However, caution is required when creating group education programmes for people with ID, because people differ from each other in various characteristics. A person-centred approach is required, i.e. training that corresponds to interests, level of support required, age, etc. This can be achieved through the active participation of people with ID in the creation of educational programs. Thus, there are two important features that must coexist in developing further digital skills education: 1) systematicity and 2) individualization.

The conducted research has few limitations. Due to the small sample that was intentionally selected among the service providers involved in the project, the results cannot be generalized. It is possible that organizations that weren't present in the study have different conditions, possibilities, and approaches to digital inclusion of users. Furthermore, all those who agreed to participate in the focus group have a positive attitude towards the technology and are enthusiastic about the topic, which surely has an impact on the results. Further research with a larger number of participants from more different organizations is needed to investigate differences between the different groups of supporters (i.e. age, work position etc.).

Nevertheless, this study provides detailed and insightful findings about the existing support for people with ID in using digital technology and the difficulties faced by supporters. Based on the findings, certain guidelines can be derived that can help professionals and family members in supporting and teaching digital skills to people with ID:

1. Organize regular digital skills training within the organization (i.e. make time for computer workshops once a week).

2. Raise awareness among parents and unmotivated staff about the importance of digital education, using concrete examples to show its application for achieving independence and improving social inclusion.
3. Educate staff with low digital skills. Rely on teamwork and mutual support among colleagues.
4. Build trust with people with ID and therefore talk openly with them about the online activities they engage in, to prevent exposure to dangerous activities.
5. Make an individual assessment of what the person wants to learn and what skills will be of benefit to them before including them in an educational activity.
6. Include people with ID as active participants and experiential experts in the design of educational programs.
7. Incorporate the person's interests into the lessons/program.
8. Use peer support in learning process and everyday support. Peers can be a great motivator for learning and teachers to other users.

6 CONCLUSION

This study gives us a deeper insight into how organizations in Croatia provide support in the digital area, which conditions are ensured to provide adequate support, and which still need to be developed. It observes what challenges support providers face and how they are overcoming them. The importance of digital technology in various aspects of the lives of people with ID was confirmed, but, unfortunately, there is a lack of education that would enable the improvement of their low digital skills. Support that people with ID receive in this area is currently dependent on knowledge, goodwill and attitudes of family members and supporters, which might result in unequal opportunities to participate in the digital world. Informal support in learning digital skills is very important, in current situation even crucial. Professional staff have no directions, they do it arbitrarily, each according to their own understanding. For this reason, the informal support shouldn't be the only type of support. Instead, staff should be educated, and organizations encouraged to provide time and resources for continuous digital training. The issue of online security is also very important. The question remains how to find balance between control and freedom in supporting safe use of Internet, which is a big challenge for both family and supporters. Certain conditions must be met to make the education effective. First, a person should have access to digital devices where they practice and then apply the learned skills. Second, a person should be surrounded by people who can provide support, i.e., who have sufficient digital skills and have positive attitudes towards digital technology. Third, the education should meet several criteria: firstly, they must be systematic, i.e., regular and continuous, and secondly, the teaching methods and contents must be individualized according to the interests and capabilities of the individual.

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1.08 Objavljeni znanstveni prispevek na konferenci
Published scientific conference contribution

CELOSTNA OSEBNOST – JEDRO DOSTOJANSTVA V IZOBRAŽEVANJU UČITELJEV
INTEGRITY – THE CORE OF DIGNITY IN TEACHER EDUCATION

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ABSTRACT

Respect for the integrity of the human being is the path to respecting his dignity. In education, the teacher plays a crucial role. If they are aware of their own integrity, they will perceive children as integral beings and thus respect them in all their dignity. In the article, I analytically summarize three perspectives on the human being: Viktor Emil Frankl (1905–1997), Ruth C. Cohn (1912–2010), and Franc Pediček (1922–2008). They were contemporaries who lived during the periods of both world wars, when human dignity was trampled upon, and all those who deviated from certain standards were scorned. They paved the way for understanding the human being as an integral personality and restored dignity to them. I pause to review the basic guidelines for teacher education in the European and Slovenian contexts. In a small-scale study, I find that students in pedagogical programs have a poor understanding of the concept of integral personality and dignity and have a fairly weak grasp of basic concepts of spiritual dimensions.

Keywords: *holistic personality, dignity, student teacher, research, spiritual dimension.*

IZVLEČEK

Spoštovanje človekove celostnosti je pot do spoštovanja njegovega dostojanstva. V vzgoji in izobraževanju ima učitelj zelo pomembno vlogo. Če se on zaveda svoje celovitosti, bo kot celovite dojemal tudi otroke ter jih s tem spoštoval v vsem njihovem dostojanstvu. V prispevku analitično povzemam tri poglede na človeka: Viktor Emil Frankl (1905–1997), Ruth C. Cohn (1912–2010) in Franc Pediček (1922–2008). Bili so sodobniki, živeli so v obdobju obeh svetovnih vojn, ko je bilo teptano človekovo dostojanstvo ter so bili zaničevani vsi, ki so odstopali od meril nekaterih. Odpirali so pot razumevanja človeka kot celostne osebnosti ter mu vračali dostojanstvo. Ustavim se ob pregledu temeljnih smernic za izobraževanje učiteljev v evropskem in slovenskem prostoru. V manjši raziskavi ugotavljam, da študenti pedagoške smeri slabo poznajo koncept celostne osebnosti ter dostojanstva in dokaj slabo razumejo osnovne pojme duhovne razsežnosti.

Ključne besede*: celostna osebnost, dostojanstvo, bodoči učitelj, raziskava, duhovna razsežnost*

1 UVOD

Ko spoštujemo človeka kot enkratno, celovito, integrirano osebnost, ga zaznamo v vsem njegovem dostojanstvu – tako v njegovih zmožnostih kot v omejitvah na telesni, duševni in duhovni ravni. Pomeni, da ga spoštujemo zato, ker je človek.

V vzgojno-izobraževalni sistem, tako v predšolsko, osnovnošolsko kot tudi srednješolsko izobraževanje, so otroci vključeni večino svojega aktivnega dela dneva. Zelo pomembno je, kako se v tem času z njimi dela, kakšen odnos se z njimi goji, kako se lahko osebnostno razvijajo. Otroci so bodoči nosilci družbenega sistema, bodoči politiki, gospodarstveniki, intelektualci, učitelji, zdravniki, kmetje, delavci, čistilke … in nenazadnje – bodoči matere in očetje. Do učiteljev in vzgojiteljev gojimo izredno visoka pričakovanja – tako na strokovni kot osebnostni ravni. Pričakujemo, da otroke spoštujejo takšne kot so, da do njih pristopajo kot do celostnih osebnosti, da lahko otroci razvijajo vse svoje razsežnosti in odrastejo v svobodne, odgovorne posameznike in zaživijo osmišljeno življenje. Toda tudi učitelji in vzgojitelji so celovite osebnosti. V času izobraževanja in tekom delovne dobe je pomembno, da pridobijo znanje in zavedanje o tem ter da zavestno skrbijo za vse svoje razsežnosti. Zanima me, ali so sami v času izobraževanja za svoj poklic deležni takšnega znanja in možnosti za osebni razvoj, da bi se lahko sami razvili kot celovite in integrirane osebnosti, se tega zavedali ter tako dostopali tudi do otrok in mladih. (Le učitelj, ki zna pisati, lahko nauči pisati druge.) Torej, da bi sebe in otroke spoštovali v vsem dostojanstvu.

1.1 Celostna osebnost kot podstat človekovega dostojanstva

Ustavimo se pri treh sodobnikih, ki so izkusili grozote druge svetovne vojne; Viktor Emil Frankl (1905–1997) in Ruth C. Cohn (1912–2010) na takrat nemških tleh, oba judovskega porekla, Franc Pediček (1922–2008) na slovenskem področju.

Med vojno je bilo človekovo dostojanstvo do konca poteptano – ljudje so bili preganjani in/ali ubiti bodisi zaradi zgodovinskega izvora (npr. Židje, Romi), zaradi svojega stanu (kmetje, podjetniki, obrtniki, trgovci), zaradi samostojnega razmišljanja in svojega znanja (intelektualci, učitelji) ali ideologije in (verniki, duhovniki, redovnice). Kdor je samostojno razmišljal, ustvarjal, bil razgledan – ali če je bilo to potencialno možno – je bil problematičen. Zahtevana je bila popolna ubogljivost in skladnost s točno določenim režimom – tako v dejanjih, besedah kot v mislih. Šlo je za nespoštovanje človekovega dostojanstva – človek je veljal samo, če je izpolnjeval določene pogoje. To pa se ne ujema z osnovnim konceptom človekovega dostojanstva: človek je enkratna, neponovljiva, nezamenljiva oseba, zato je vredna brezpogojnega spoštovanja (Ramovš 2017, 143–145). Kljub zmotam, napakam ali bolezni vsak človek še vedno ohrani svoje dostojanstvo: »tudi če bi kdo bil v tako slabem položaju, da ne bi mogel narediti česar koli koristnega, kljub temu ne bi izgubil ne svojega dostojanstva ne smiselnosti svojega obstajanja.« (Lukas 2017, 81)

Frankl, Cohn in Pediček so vsak na svoj način izkusili to kratenje človekovega dostojanstva. Vsi trije so s svojim znanjem skušali vrniti človeku dostojanstvo in s svojim strokovnim delom nenehno opozarjali nanj. Vsak v svojem prostoru so razvijali strokovno znanje, koncepte in načine za spoštovanje celovitega človeškega bitja, pri tem pa tudi svojo človeško plat. Ni znano, ali so se med seboj poznali, je pa npr. Pediček izhajal iz Franklovega dela in pisal o pedagoški logologiji (Pediček 1992, 242).

1.1.1 Viktor Emil Frankl (1905–1997)

Viktor E. Frankl je bil rojen na Dunaju, v družini z judovskim poreklom. Izobraževati se je začel med prvo svetovno vojno, v obdobju velike revščine. Bil je povezan s Freudom in Adlerjem, a so se njihove poti razšle. Ustanovil je Svetovalni center za mladostnike na Dunaju, pozneje še v drugih mestih. Po diplomi je delal v več klinikah, leta 1937 pa kot specialist nevrologije in psihiatrije odprl zasebno ambulanto. S Hitlerjevim prevzemom Avstrije se je Franklovo delo prekinilo. Preživel je tri koncentracijska taborišča, kjer je gledal smrti neposredno v oči. Izgubil je ženo, starša, brata, kariero. Leta 1945 se je vrnil na Dunaj. Je utemeljitelj logoterapije in tretje dunajske šole (prvi dve: Freud in Adler), bil je nevrolog, psihiater. Prejel je 29 častnih doktoratov, njegove knjige so prevedene v skoraj vse svetovne jezike. 25 let je bil predstojnik Nevrološke poliklinike na Dunaju, po habilitaciji je prevzel Katedro za nevrologijo in psihiatrijo na Univerzi na Dunaju, kjer je predaval do svoje upokojitve (1995). Imel je množico predavanj na univerzah po vsem svetu. Kljub svojemu trpljenju v taboriščih in izgubah najdražjih je ohranil voljo do smisla.

Frankl je na človeka gledal kot na nedeljivo celoto telesne, duševne in duhovne razsežnosti. Človek je edinstveno, v sebi povezano bitje. Če nanj gledamo le z vidika ene razsežnosti, ga razosebimo, mu vzamemo dostojanstvo. Sprememba na eni razsežnosti povzroči spremembo tudi v drugih dveh. Ker je duhovna razsežnost edinstveno človeška, je ‚najvišja'. (Frankl 2016, 18–19) Franklovo delo je temeljilo na duhovni dimenziji – v bivanjskih vprašanjih in vprašanjih volje do smisla, svobode in odgovornosti. Postavil je tri poglavitna načela logoterapije: volja do smisla, smisel življenja in svoboda volje (Frankl 2016, 9). Če človek ne najde in ne izpolnjuje smisla v svojih življenjskih nalogah v odnosu do sebe in drugih, ga to sčasoma privede v bivanjsko krizo oz. krizo smisla. Tako je smisel življenja tesno povezan z duševnim zdravjem ljudi. (Kristovič 2013, 625–628) Bistvo človeškosti je »v preseganju samega sebe in pogojev, v predanosti neki nalogi ali osebi« (Kristovič 2013, 629).

1.1.2 Ruth C. Cohn (1912–2010)

Ruth C. Cohn je bila rojena v Berlinu, v družini z nemško-judovskim poreklom. Med študijem ekonomije in psihologije je leta 1933 zaradi nevarnosti vojnega ujetništva prebegnila v Švico, leta 1941 pa je emigrirala v ZDA. Bila je psihologinja, filozofinja, psihoterapevtka, psihoanalitičarka. Usposabljala se je na področju skupinske terapije, Gestalt terapije, prejela je dva častna doktorata. Leta 1974 se je preselila v Evropo. Predavala je na univerzah in strokovnih srečanjih ter vodila delavnice in terapevtske skupine. Vzpostavila je metodo TCI – Theme Centered Interaction. Leta 1966 je ustanovila podjetje Workshop Institute for Living-Learning. (Ruth Cohn Institute for TCI International)

Osredotočala se je na celostni pristop – na osebnostno rast posameznika znotraj določenega okolja, na vprašanje povezanosti človekovega telesa, misli, čustev in duhovnega sveta. Pomembno ji je bilo vprašanje smisla, svobode in odgovornosti ter avtonomije in povezanosti. Cilj metode TCI je pomagati ljudem, da svoje interese in naloge strukturirajo odgovorno in samostojno ter ustvarjalno uporabljajo svoje vire. Zahteva brezpogojno spoštovanje vsakega posameznika ter zagovarja življenjsko, izkušenjsko učenje. (Ruth Cohn Institute for TCI International) Osnovni elementi TCI metode so štirje faktorji, ki so med seboj povezani in enako pomembni: jaz, mi, predmet (naloga) in kontekst. Med njimi obstoja dinamično ravnovesje, ki omogoča učenje in rast. Opredeli tri osnovna načela: (1) posameznik je psiho biološka enota, je avtonomen in hkrati soodvisen; (2) vsa živa bitja si zaslužijo spoštovanje; (3) svobodno odločanje poteka znotraj začasnih notranjih in zunanjih meja. Opredeli tudi dva postulata, trditvi: (1) bodi sam svoj ‚chairperson' (vodja) – ob upoštevanju drugih, sebe in okoliščin je treba odgovorno sprejemati odločitve in (2) motnje imajo prednost, so priložnost in ne ovira. (Cohn 1971; Cohn b. d.)

1.1.3 Franc Pediček (1922–2008)

Franc Pediček je bil rojen v Malečniku (Sv. Peter) pri Mariboru, v slovenski družini. Obiskoval je klasično gimnazijo v Mariboru, pred začetkom 2. svetovne vojne prišel v Ljubljano in nadaljeval s šolanjem. Med vojno je doživel grozote taborišč na Turjaku, v Kočevju, Vetrinju in na Teharjah. Fizično je bil na robu smrti. Po vojni je pri dr. Gogali doštudiral pedagogiko. (Ramovš 2008, 2)

Vse življenje je delal na področju vzgoje: »kot učitelj in svetovalec v gimnazijah, kot priljubljen predavatelj študentom, učiteljem in staršem, kot znanstvenik in ploden ustvarjalec teoretičnih in praktičnih knjig, člankov in referatov« (Ramovš 2008, 2). V slovensko šolstvo je uvedel šolsko svetovalno delo. Sistematično je snoval in teoretično utemeljeval celostno pedagogiko: celovito antropogogiko, pedagogiko, hebegogiko, andragogiko in gerontogogiko ter tanatogogiko (soočanje z minljivostjo, ovirami) (Ramovš 2008, 2). Nasprotoval je tezi, da je človek v funkciji družbe ter konceptu vsestransko razvite osebnosti ter zasledoval smoter vzgoje. Zagovarjal je celosten pogled na človeka (ki je znotraj sebe povezan in ne sestavljen). Po letu 1971, ko je na pedagoškem kongresu na Bledu svoje poglede jasno izrazil, je bil deležen cenzure v pisanju, prepovedano mu je bilo predavati, na voljo so mu bile le ‚obrobne' službe. Kljub temu je ustvarjal in zgradil pomembne premike na psihološkem, antropološkem in pedagoškem področju (Ramovš 2013, 182–192). Postavil je kritike t. i. Gabrove prenove šole (1996–1999) na treh ravneh: metodološko procesne (šolsko delo je bilo podrejeno izključevalnosti interdisciplinarnega vidika, enostranskemu totalitarizmu), vsebinsko-inovacijske (črtanje vrednostne vzgoje iz VIZ procesa, poudarjanje informacijskega znanja) in organizacijsko funkcionalne (podrejanje šole birokratizmu) (Pediček 1998, 7–10). Pripravil je na znanstvenih podlagah temelječe smernice za prenovo šole na Slovenskem (Pediček 1992; Pediček 1994).

1.1.4 Ključne stične točke krepijo človekovo dostojanstvo

Frankl, Cohn in Pediček so s svojim življenjem in trdim znanstvenim in praktičnim delom skušali vrniti človeku dostojanstvo. Vsem je bilo skupno:

- Celostni pogled na človeka, pri čemer ne gre za vsoto nekih lastnosti in danosti, temveč za integrirano, celovito osebnost.
- Poudarek na smiselnosti življenja, dela, odnosov, kar daje človeku moč.
- Pomen svobode in osebne odgovornosti – posameznik (naj) ima svobodo izbire, vendar odločitve so tudi odgovornost, s tem povezane pa posledice.
- Zavedali so se pomena vzgoje ter na tem področju delovali.
- S terapevtskim oz. pedagoškim delom so mnogim pomagali vrniti dostojanstvo; pomagali so krepiti duševno zdravje, samospoštovanje, sposobnost soočanja z različnimi življenjskimi situacijami.
- Poudarjali so pomen povezanosti med ljudmi, skrb posameznika za družbo.
- Bili so široko razgledani in so imeli znanje različnih disciplin. Ustvarili so nove koncepte dela, vrsto strokovnih in znanstvenih del.
- Prispevali so pomemben delež tudi na področju šolstva, tudi izobraževanja učiteljev. Cohn in Pediček že v času svojega življenja (Cohn b.d.; Pediček 1992), Franklova logoterapija pa je sčasoma vključevana v pedagoško delo, na Slovenskem najbolj konkretno z uvedbo študija Logopedagogike (Specialistični študij … 2024).

V nadaljevanju se osredotočimo na celostno osebnost kot ključ do spoštovanja človekovega dostojanstva ter v luči tega poglejmo na izobraževanje učiteljev na Slovenskem.

1.1.5 Celostni razvoj v šoli

Šola je lakmusov papir družbe (Muhovič 2011, 29). S prevelikim poudarkom na kognitivnem razvoju, na znanju, na pridobivanju točk in tekmovanju za ocene je šola krenila stran od tega, da bi zagotovila celovit razvoj otrokom. S postavljanjem v ospredje tega, kar se meri, spregleda to, česar se ne da meriti: ustvarjalnost, domišljijo, empatijo, voljo do smisla, čustva, identiteto, odnose do sebe in drugih, dostojanstvo … (Šverc 2011, 47; Kristovič idr. 2022, 106–109). Slednje človeku omogoča, da čuti sebe v vsej polnosti, svojo nedeljivost, smiselnost in uresničenost, svobodo in odgovornost, svoje dostojanstvo, da ustvarja in ohranja harmonijo (Cohn 1971, Palmer 2001). Barica Marentič Požarnik poudarja, da ni kakovostnega znanja, »če ob tem ne aktiviramo in razvijamo celotne učenčeve osebnosti in ne le spoznavno plat« (Marentič Požarnik 2011, 76).

Na pretiran poudarek na znanju in ocenjevanju le ponavljanja pridobljenih informacij ter pomanjkanje celostnega pogleda na človeka v sistemu vzgoje in izobraževanja je opozarjal že Pediček (1998, 7–10, 97), Svetina (1990, 45–58) in drugi. Današnje generacije učiteljev in staršev so torej šle skozi sistem izobraževanja, ki je spodbujal ponavljanje pridobljenih informacij, učenje za pridobivanje ocen in točk ter s tem tekmovalnost. Postavlja se vprašanje, kako in kdaj lahko učitelj, ki je v celotnem sistemu šolanja razvijal le svojo kognitivno plat, razvije tudi duhovno raven? Ali mu to da fakulteta?

1.2 Evropske in slovenske smernice za izobraževanje učiteljev

Delo učiteljev in njihovo izobraževanje usmerjajo nekatere smernice na svetovni (npr. UNESCO), evropski, državni ter na ravni posamezne univerze, ki izobražuje bodoče učitelje. Tu imajo posebno mesto UNESCO-vi štirje stebri vzgoje in izobraževanja: učiti se, da bi vedeli; učiti se, da bi znali delati; učiti se živeti z drugimi; učiti se biti (Delors 1996), ki se jim je pridružil peti: učiti se postati s svetom (Common Worlds … 2020), ter Incheonska deklaracija – izobraževalni okvir za ukrepanje do 2030 (UNESCO 2015). Tu so še Zelena knjiga o izobraževanju učiteljev v Evropi (2001), Strategija Izobraževanje in usposabljanje 2020 (Svet Evropske unije 2009), Zakon o visokem šolstvu (2012), Zakon o osnovni šoli (2007), Bela knjiga o vzgoji in izobraževanju v Republiki Sloveniji (Krek in Metljak 2011) ter pravilniki posameznih fakultet. Na nekaterih univerzah imajo etični kodeks (Univerza v Ljubljani 2014; Univerza na Primorskem 2011; Univerza v Mariboru 2021), učitelji svojega etičnega kodeksa še vedno nimajo. Imajo pa ga člani Društva katoliških pedagogov Slovenije (1998). Konkretne smernice za izobraževanje učiteljev so zapisane v učnih načrtih posameznih učnih programov pedagoških smeri.

Evropske smernice podpirajo in odpirajo poti v smeri upoštevanja in formacije celostne osebnosti (Delors 1996; Common Worlds … 2020; UNESCO 2015; Zelena knjiga o izobraževanju učiteljev v Evropi 2001 ipd.). Slovenski dokumenti skušajo temu slediti, čeprav je holističnost osebnosti v njih prisotna filigransko (Zakon o osnovni šoli 2007; Krek in Metljak 2011). V učnih ciljih in smernicah pedagoških fakultet v Sloveniji je manjši poudarek na duhovni ravni oz. četrtem UNESCO-vem stebru ‚učiti se biti' (Ašič 2016).

Postavlja se teza, da je slovenski bodoči učitelj v času izobraževanja za opravljanje tega poklica premalo celostno pripravljen za vzgojo in izobraževanje otrok in mladih; v mislih imam predvsem četrti in peti UNESCO-v steber oz. duhovni razvoj učiteljeve osebnosti ter Incheonsko deklaracijo. Gre za področje smiselnosti, odgovornosti, poslanstva, vrednot, vesti, empatije, intuicije, samostojnosti, ustvarjalnosti, dostojanstva, smisla za humor, pozitivnega odnosa do življenja … ter čuta za nadnaravno. Kot pravi Novak (2006, 63), je osebnostna rast učitelja »sestavina razvoja poklicne profesionalnosti« in zato nujno potrebna v osebnem in poklicnem delu.

1.3 Dosedanje raziskave

Raziskav na pedagoškem področju je veliko, vendar se nanašajo na določen segment osebnostnega ali profesionalnega razvoja učiteljev. Tako npr. najdemo raziskave o kompetencah (Peklaj 2008), o profesionalnem razvoju učiteljev (Vršnik Perše 2015; Peklaj idr. 2006; Marentič Požarnik 1987 in 2020), o razvoju učiteljeve poklicne poti (Muršak idr. 2011) itd.

Ključno raziskavo s področja celostnega pristopa v šolstvu je opravil Kristovič s sodelavci. Raziskovali so »poznavanje in uporabo holističnega pristopa« pedagoških delavcev pri njihovem delu »ter poznavanje nekaterih mednarodnih dokumentov, ki implicirajo na uporabo holističnega pristopa« (Kristovič idr. 2022, 132). V vzorec so zajeli 525 strokovnih delavcev v vzgoji in izobraževanju (VIZ). Raziskava kaže, da je poznavanje evropskih smernic ter smernic holističnega pristopa šibko, še posebej pri mlajših pedagoških delavcih oz. tistih s krajšo delovno dobo (n. d. 161–169).

Leta 2016 sem v manjši kvalitativni analizi preverila, koliko se učni načrti slovenskih pedagoških fakultet programa za izobraževanje bodočih učiteljev razrednega pouka ujemajo s smernicami UNESCO (štirje stebri – Delors 1996) in drugimi pomembnejšimi smernicami. Ugotovila sem, da je četrti steber – učiti se biti – najslabše zastopan v učnih načrtih teh fakultet (Ašič 2016).

2 NAMEN IN CILJI

Namen tokratne raziskave je bilo med bodočimi učitelji – sedaj študenti pedagoške smeri – ugotoviti poznavanje koncepta celostne osebnosti ter dostojanstva, njihovo zavedanje o svoji celovitosti ter razumevanje osnovnih pojmov duhovne razsežnosti.

Cilji raziskave so neposredno povezani z raziskovalnimi vprašanji. Slednja navajam:

- RV1: Kako študentje pedagoških smeri opredelijo pojem celostna osebnost?
- RV2: Ali študentje pedagoških smeri poznajo osnovna dva dokumenta UNESCA – Učenje, skriti zaklad ali/in Incheonsko deklaracijo?
- RV3: Kako študentje pedagoških smeri opredelijo pojem duhovna razsežnost?
- RV4: Kaj študentje razumejo pod pojmom dostojanstvo?
- RV5: Katera okolja bodoči učitelji zaznajo kot pomembna za razvoj celostne osebnosti?

Smisel raziskave je okrepiti zavedanje, (1) da je učitelj celostna osebnost, (2) da ni vseeno, ali učitelj kot pomembna oseba pri zorenju otrok pozna pojme človekovo dostojanstvo, celostna osebnost ter (3) da je pomembno učiteljevo poznavanje evropskih smernic, ki usmerjajo vzgojo in izobraževanje v celostni razvoj.

3 METODE

Vprašalnik v spletnem orodju 1ka sem pripravila sama, deloma sem vprašanja prilagodila vprašanjem iz raziskave o poznavanju in uporabi holističnega pristopa med pedagoškimi delavci (Kristovič idr. 2022, 132–160).

Na začetku sem udeležence seznanila z namenom raziskave ter jim zagotovila anonimnost, prostovoljno sodelovanje ter uporabo podatkov v zgolj raziskovalne namene.

Raziskava je bila opravljena po metodi snežne kepe – poslala sem jo trem osebam (s Pedagoške fakultete v Ljubljani, Kopru in Mariboru). Vsako od njih sem prosila, da razpošlje svojim sošolcem in sošolkam oz. v primeru profesorja študentom. Od 52 odgovarjajočih je med 8. in 15. 1. 2024 vprašalnik do konca izpolnilo 20 udeležencev.

Vprašalnik je obsegal 23 vprašanj, od tega jih je bilo 11 odprtega tipa. Podatke, ki so bili pridobljeni z odprtimi vprašanji, sem obdelala kvalitativno, po postopku kodiranja po Glaserju in Straussu (Mesec 1997, 29–37), ki je smiselno prirejen glede na to, da so bili odgovori kratki in jedrnati:

1. Dobeseden izpis izjav.
2. Podčrtovanje delov izjav, ki bolj natančno izražajo vsebino.
3. Izpis podčrtanih delov.
4. Pripisovanje kod.
5. Ureditev izvlečkov po kodah.
6. Oblikovanje pojmov – pripisovanje pojmov
7. Urejanje pojmov v kategorije ter dodajanje manjkajočih pojmov.
8. Oblikovanje teorije.

Podatke, zbrane v vprašanjih zaprtega tipa, sem samo seštela, saj je število odgovorov premajhno za resno kvantitativno analizo.

Vzorec ni reprezentativen, kljub temu pa nam v razmislek daje zanimive informacije.

Metodološki pristop v raziskavi je kvalitativen, saj je bil poudarek na raziskovanju vprašanj odprtega tipa. Odgovori na vprašanja odprtega tipa nam podajo več vsebine, širše lahko pogledamo na odgovor. Odgovorov na vprašanja zaprtega tipa je bilo premalo, da bi na podlagi slednjih kvantitativna analiza podala pomembne zaključke. Tako podatki kvantitativnega izvora podajo le okvir za razumevanje izsledkov kvalitativne analize, ki je narejena po metodi Glaserja in Straussa.

4 REZULTATI IN RAZPRAVA

V raziskavi je sodelovalo 8 študentov in 44 študentk smeri Razredni pouk na eni od treh slovenskih Pedagoških fakultet; od tega 18 iz drugega letnika, 19 iz tretjega ter 15 iz četrtega letnika. Tekom ankete se je število manjšalo.

4.1 RV1: Kako študentje pedagoških smeri opredelijo pojem celostna osebnost?

V povezavi s tem sta bili dve vprašanji odprtega tipa. V enem so vprašani odgovarjali, kako bi opredelili pojem ‚celostna osebnost', v drugem pa, ali poznajo kakšnega strokovnjaka, ki govori o celostni osebnosti.

S pomočjo kvalitativne obdelave pridobljenih podatkov so se nam izrisale tri skupine odgovorov na vprašanje, kako bi opredelili pojem ‚celostna osebnost' oz. kako bi to razložili otroku:

- *Nepoznavanje ali nejasno definirano* – tu gre za dejansko nepoznavanje (3) (»ne vem«) kot tudi za nejasno izražanje (8) (»celotna osebnost«, »izpopolnjena osebnost«, »tak kot si navznoter«);
- *Le deloma navedeno* – tu gre za odgovore, ki so vsebovali le vedénje (1), vedénje in odnose (2), vrednote (1) ali značaj (3) (odgovori kot »značilnosti pri ljudeh, ki niso vidne navzven, temveč kako se vedemo v različnih družbah in kako gradimo prijateljstva«, »nek celoten značaj osebe«);
- *(Dokaj) celostno obrazloženo* – tu gre za odgovore, ki so:
  - opredelili duševno in duhovno raven (10) (»Skupek osebnostnih lastnosti (kako mislimo, čutimo, obnašamo, delujemo v okolju).«, »Misli, vedenje, čustva in podobno so integrirani kot celota. Otroku bi razložila, da smo kot kos pice, in vsak del predstavlja nekaj, na primer en kos so čustva, en kos vedenje, in da celostna osebnost predstavlja celo pico.«),
  - zaobjeli vse tri ravni – telesno, duševno in duhovno (2) (»Vse, kar ti si. Tvoj značaj, temperament, videz, misli, vrednote, stališča.«).

Pri drugem – poznavanje avtorjev – je bilo največ odgovorov, da ne poznajo nikogar (10), drugi so navedli nekaj imen: Freud (3), Piaget (2), Erikson (2), po enkrat so bili omenjeni: Marjanovič Umek, Bucay, Karel Gržan, Veronika Podgoršek, Oton Župančič. Ugotovili smo, da študentje, ki so vprašanja izpolnjevali, ne poznajo strokovnjakov s področja holističnega pristopa.

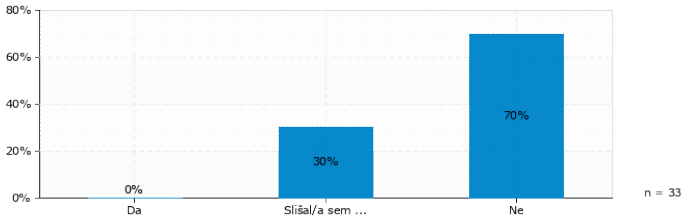
Iz analiz vidimo, da je poznavanje pojma celostna osebnost izjemno šibko, saj sta to zaobjela samo dva vprašana (od 33-ih). Tako je odgovor na RV1, da bodoči učitelji razrednega pouka zelo slabo poznajo koncept celostne osebnosti ter njegove avtorje.

Slednje je zaskrbljujoče. Možno je sicer, da bodo kot učitelji nezavedno vstopali v odnose z otroki, sodelavci in tudi do sebe na celostni ravni, toda za to je večja gotovost in kakovost, če bi o holističnem konceptu imeli znanje, če bi bilo to tudi na zavedni ravni (prim. Lukas 2007, 12).

4.2 RV2: Ali študentje pedagoških smeri poznajo osnovna dva dokumenta UNESCA – Delorsov Učenje, skriti zaklad ali/in Incheonsko deklaracijo?

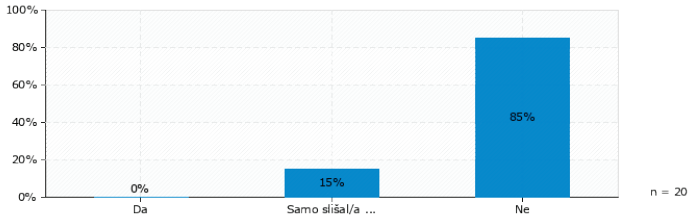
Odgovor na to raziskovalno vprašanje nam dajo izsledki treh vprašanj zaprtega tipa.

Slika 1: UNESCO je leta 1996 v Delorsovem dokumentu Učenje, skriti zaklad, opredelil 4 stebre vzgoje in izobraževanja. Ali jih poznate? (n = 33)



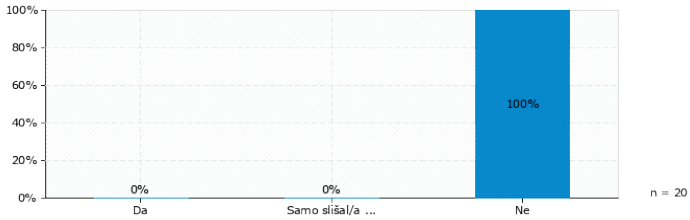
UNESCO-vih štirih stebrov ne pozna nihče od teh, ki so izpolnili vprašalnik, 10 jih je le slišalo zanj.

Slika 2: Leta 2020 je UNESCO dodal peti steber: Učiti se postati s svetom – izobraževanje za prihodnost. Ga poznate? (n = 20)



UNESCO-vega petega stebra ne pozna nihče od teh, ki so izpolnili vprašalnik, 3 so le slišali zanj.

Slika 3: Ali poznate priporočila Incheonske deklaracije iz leta 2015? (n = 20)



Incheonske deklaracije ne pozna nihče od teh, ki so izpolnili vprašalnik.

Odgovor na RV2 je, da vprašani bodoči učitelji sploh ne poznajo temeljnih UNESCO-vih dokumentov, ki usmerjajo tudi slovensko šolstvo in želijo razširiti holistični pristop v vzgoji in izobraževanju. Dopuščamo možnost, da se morda o tem na fakulteti še niso učili, toda med vprašanimi je bila večina tretji in četrti letnik Pedagoške fakultete. Morda je izobraževanje v tej smeri načrtovano za zaključne mesece? Vemo, da je koncepte treba ponotranjiti, kar pa ni mogoče storiti v nekaj mesecih.

4.3 RV3: Kako študentje pedagoških smeri opredelijo pojem duhovna razsežnost?

Odprto vprašanje je bilo zastavljeno tako: Kako bi opredelili duhovno raven človeka? Kako bi to npr. razložili otroku? V kvalitativni analizi se je izrisalo nekaj skupin:

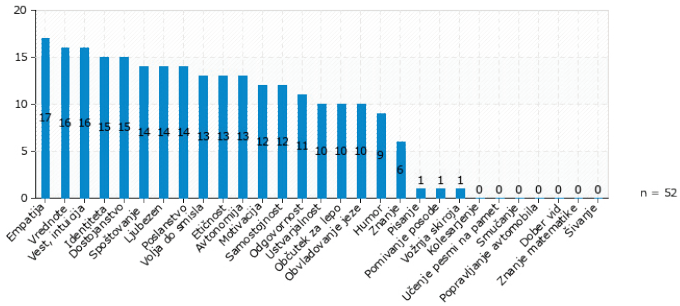
- Čustva, čutenje, doživljanje
- Razmišljanje, mišljenje, misli
- Vrednote, morala, prepričanja
- Vera, religija
- Poznavanje sebe, svoje notranjosti

Tu izpostavljam odgovor: »Človek ima telo, s katerim čuti stvari iz okolja in um, s katerim razmišlja in ustvarja odločitve. Poleg tega obstaja tudi duhovna raven človeka, ki vpliva na to, kako se odločamo, kaj je dobro in kaj slabo, v kaj verjamemo in kaj je za nas pomembno.«

Večina odgovorov je zavzemalo le eno postavko (npr. čustva, vera, mišljenje ...). Zgoraj naveden odgovor, ki široko opisuje duhovno razsežnost, je izjema. V odgovorih vidimo tudi mešanje duhovne in duševne ravni.

V naslednjem vprašanju so bili vprašani naprošeni, da izmed navedenih pojmov označijo tiste, za katere menijo, da sodijo v duhovno raven osebnosti. Lahko so označili več pojmov.

Slika 4: Obkrožite pojme, za katere menite, da opredeljujejo duhovno raven osebnosti. (n = 18). **Možnih je več odgovorov.**



Pojmi so bili v vprašalniku med seboj pomešani, v grafu so urejeni po pogostosti označbe. Vprašanje je bilo zaprtega tipa.

Skoraj vsi vprašani so empatijo zaznali kot duhovno razsežnost. Tja so postavili tudi obvladovanje jeze, znanje, pisanje, pomivanje posode in vožnjo skiroja. Dokaj nizko so pristali poslanstvo, volja do smisla, etičnost, avtonomija, odgovornost in ustvarjalnost, ki so temeljni pojmi duhovne razsežnosti. Odgovor na RV3 je, da bodoči učitelji srednje dobro poznajo duhovno razsežnost.

4.4 RV4: Kaj študentje razumejo pod pojmom dostojanstvo?

S kvalitativno analizo so se izrisale tri skupine odgovorov na vprašanje odprtega tipa (Kako bi otroku v nekaj besedah opisali pojem ‚**človekovo dostojanstvo**'?):

- *Spoštovanje vsakega človeka* (»da ga nihče ne žali in krši njegovih pravic«, »da ga moramo spoštovati in sprejemati ne glede na to, kakšne vere, spolne usmerjenosti, rase, etničnosti, zdravstvenega stanja itd. je oseba«);

– *Označuje vrednost človeka* (npr. »človekov ponos«, »vsak človek je čudovit takšen kot je«);
– *Nakazuje smisel človekovega obstoja* (»kar človek mora delati, doseči v življenju«).

Odgovorov na to vprašanje je bilo malo (13). Ugotovitev RV4 je, da gredo vsi odgovori v smeri definicije človekovega dostojanstva, vendar gre v prvi skupini za odnos drugih do posameznika, v drugi skupini gre za vrednost človeka, v tretji pa za njegovo nalogo. Vsi pa gredo v smeri, da je človek enkraten, nezamenljiv, nujno je brezpogojno spoštovanje vsakega (prim. Ramovš 2017, 143–145).

4.5 RV5: Katera okolja (nekateri) bodoči učitelji zaznajo kot pomembna za razvoj celostne osebnosti?

Na vprašanje ‚Ali se zavedate sebe kot celostne osebnosti?' je bilo od 20 odgovorov 14 pritrdilnih, 2 negativna, 4 pa niso imeli mnenja.

Na vprašanje ‚Ali se vam zdi, da ste v času izobraževanja na fakulteti usmerjeni v to, da je vsak otrok celovita in edinstvena osebnost?' jih je 8 odgovorilo z ‚da', 7 z ‚delno', 3 pa ‚ne' (n = 18).

Vprašanji sta bili zaprtega tipa. Bodoči učitelji menijo, da so med izobraževanjem na fakulteti dokaj usmerjeni v to, da je vsak otrok celovita in edinstvena osebnost.

Tabela 1: Ali se vam zdi, da ste na fakulteti kot študent/ka, bodoči/a učitelj/ica deležni usposabljanja na celostni ravni? Napišite, kako.

Razsežnost	Ne	Da ali deloma
Na telesni ravni	4 (»ne«, »nismo deležni tega«)	8 (npr. »šport«, »poudarja se zdravje telesa«, »poudarek je na razvoju fine in grobe motorike«
Na duševni ravni	6	6 (npr. »pojmovanje čustev«, »druženje«, »nekateri profesorji so pripravljeni na pogovor«, »premalo poudarka na tem, kako biti močna osebnost kot učitelj«)
Na duhovni ravni	7	5 (npr. »predavanja«, »duhovno zaznavanje«, »diskusije in pogovor razvijejo zelo zanimive etične teme, kjer lahko vsak izrazi lastno mnenje in ga podkrepi«)

Vprašanje je bilo odprtega tipa. Razvidno je, da se število na strani ‚ne' in ‚da' na duševni ravni izenači, na duhovni ravni pa prevesi v večino v primerjavi z razvojem bodočih učiteljev na telesni ravni, na fakulteti.

Tabela 2: Ko razmišljate o tem, v katerem okolju ste najbolj osebnostno rastli (pridobili vrednote, oblikovali čut za to, kar je prav, gradili spoštovanje do drugih, empatijo, čut odgovornosti, raziskovali vprašanja o smislu …) – v katerem okolju je bilo to najbolj izrazito, če pomislite na starost od 15. leta dalje? (n = 13)

Okolje	Pomembnost 1	Pomembnost 2	Pomembnost 3	Frekvenca
Srednja šola	2	3	3	8
Fakulteta	1	0	2	3
Družina	9	3	1	13
Prijatelji	1	3	3	7
Skavti, taborniki	0	3	2	5
Mladinska veroučna skupina	0	1	1	2
Planinski krožek	0	1	0	1

Med najbolj pomembna okolja, kjer so bodoči učitelji zaznali osebnostno rast v obdobju od 15. leta dalje, so uvrstili družino, sledijo ji srednja šola in prijatelji. Rezultati so pričakovani.

Odgovor na RV5 je, da bodoči učitelji sebe zaznavajo kot celovito osebnost predvsem v družini in med prijatelji, vloga fakultete je pri tem manjša. Da pa jih fakulteta delno usmerja na zaznavanje otrok kot celovitih osebnosti.

4.6 Sklepni del razprave

Manj kot polovica tistih, ki so odgovarjanje začeli, je prišla tudi do konca. Pri tem vidim dvoje:

1) Vprašalnik je bil zanje dokaj težek. Zahteval je razmislek, nekaj časa, tudi znanje. Veliko je bilo odprtih vprašanj, kjer mora vprašani brez smernic zapisati svoje misli. Če jih nima, zapusti vprašanje in posledično tudi vprašalnik. Ali bi jih več prišlo do konca pri zaprtih tipih vprašanj? Toda s tem bi bili omejeni, izgubilo bi se bogastvo njihovih misli.
2) Menim, da so se do konca prebili bodoči učitelji, ki so bolj zavzeti in gredo z večjim veseljem proti svojemu poklicu; nezavzeti se niti ne lotijo takšnih vprašalnikov. Zato so rezultati toliko bolj zaskrbljujoči; če zavzeti bodoči učitelji ne poznajo UNESCO-vih smernic in koncepta holistične vzgoje, dostojanstva, celostne osebnosti – kdo jih potem pozna? Zagotovo bodo tekom pedagoškega dela vse to spoznali, toda verjetno bi jim bilo marsikdaj lažje, če bi s tem védenjem in zavedanjem že prvič stopili v razred.

Splošna ugotovitev je, da je poznavanje holističnega koncepta med bodočimi učitelji šibko. Možno je, da bodo to znanje še pridobili v času študija in priprave na strokovni izpit, toda vprašanje je, ali bo to znanje ponotranjeno, poglobljeno, ali bo namenjeno le pridobitvi ocene oz. potrdila. Da poznavanje holističnega koncepta med mladimi učitelji ni najboljše, je bilo ugotovljeno tudi v raziskavi med pedagoškimi delavci (Kristovič idr. 2022, 132–169). To kaže, da rezultati tukajšnje analize, čeprav je bilo malo respondentov, niso napačni. Kaže tudi, da bi bilo potrebno v času študija in priprave na pedagoški poklic okrepiti zavedanje o pomenu celostnega pristopa, še posebej duhovne ravni, saj to omogoča polno spoštovanje človeka kot edinstvenega bitja, ki živi osmišljeno življenje, kar so poudarjali tudi Frankl (2016), Cohn (1971) in Pediček (1992).

5 ZAKLJUČEK

Na podlagi pregledane literature, smernic za holistično vzgojo ter opravljeno manjšo raziskavo opažamo velik razkorak. Smernice so postavljene na znanstvenih temeljih, že leta se jih skuša uveljaviti tudi v slovensko šolstvo. Toda očitno se pri implementaciji nekje ustavi – poznavanje holističnega koncepta je s strani vprašanih bodočih učiteljev šibko.

Glede na majhno število udeležencev v raziskavi ne moremo ugotovitev posplošiti na celotno populacijo. Je pa lahko dobra usmeritev, saj so v raziskavi sodelovali študentje treh slovenskih Pedagoških fakultet, v različnih letnikih.

Zanimiva bi bila širša raziskava med študenti zaključnega letnika pedagoških smeri ali pa mladih učiteljev (1 ali največ 2 leti na delovnem mestu). Menimo, da bi s tem dobili bolj verodostojne informacije o tem, koliko znanja in izkušenj s področja holistične vzgoje pridobijo na fakulteti.

Tudi ta manjša raziskava kaže, da bodoči učitelji potrebujejo več znanja, razmišljanja in ozaveščenih izkušenj s področja holistične vzgoje. Slednja bi jim dala širok, celosten pogled tako nase kot na otroke, sodelavce in starše. Izobraževanje na fakulteti bi moralo biti usmerjeno v to, da bodoče učitelje usposobi, da bodo na svoje okolje gledali celostno; s tem bo več spoštovanja, kritičnega razmišljanja, svobode in tudi odgovornosti. Boljši bodo tudi učni rezultati, ki bodo usmerjeni v obstoj družbe. Samo s celostnim pristopom bo spoštovano človekovo dostojanstvo, življenje pa osmišljeno. To je pot v duševno zdravje, dobre odnose, prihodnost in trajnostni razvoj.

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1.08 Objavljeni znanstveni prispevek na konferenci
Published scientific conference contribution

THE USE OF LANGUAGE GAMES DURING THE TEACHING PROCESS IN DEVELOPING STUDENTS' CRITICAL AND CREATIVE THINKING

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ABSTRACT

This study aims to analyze the impact of language games on the development of critical thinking, creativity, and language competencies among students in pre-university education in Albania. It is based on the constructivist approach to learning and the competency-based classroom model. The guiding hypothesis of this research is that the integration of language games into mother tongue lessons enhances student engagement, increases self-esteem, and promotes the development of 21st-century competencies.

The study employs a qualitative methodology with data triangulation: direct observation, document analysis, structured questionnaires, semi-structured interviews, and professional reflections. The sample included 432 students from fifth, sixth, and ninth grades, providing a comprehensive overview of the impact of language games at different stages of development.

The results show that language games significantly improve self-esteem, communication, collaboration, and reflective thinking. Teachers noted increased engagement and improvement in writing and speaking skills, especially among students with learning difficulties.

The SWOT analysis highlighted the strengths of this method, but also the challenges related to lack of time, ready-made resources, and specific training. Through professional reflection and interpretation of consistencies among data sources, the study supports the conclusion that language games represent an effective strategy for personalized, inclusive, and future-oriented teaching.

Keywords: *language games, critical thinking, competency-based teaching, pre-university education, curriculum, didactic innovation.*

1 INTRODUCTION

Since the 1990s, the Albanian education system has undergone profound structural and curricular reforms, aimed at building a quality and inclusive system oriented toward the development of essential competencies for life and work. These reforms have prioritized equal access to education for all students, regardless of whether they live in urban or rural areas, and have focused on fostering knowledge, skills, attitudes, and democratic values, in line with the principles of equity and lifelong learning (European Commission 2020).

The National Education Strategy 2021–2026, together with the European Union recommendations (2021–2024), underscores the importance of an effectively managed education system supported by mechanisms that ensure quality, transparency, and accountability. The existing legal framework, including Law No. 69/2012, as well as policy documents from the Institute for the Development of Education (2016), OECD (2024), UNICEF (2022), and ASCAP (2022), emphasizes alignment with international standards and the development of a democratic society through quality and inclusive education.

Key pillars of these reforms include the full inclusion of students in compulsory education, the enhancement of initial teacher training and continuous professional development, the implementation of a competency-based curriculum, and the integration of modern technologies into the learning process. The structure of the Pre-University Education Curriculum (arsimi.gov.al 2014) is organized into seven learning areas, tailored to students' age and cognitive development, ensuring coherence and progression across all educational levels.

Within this framework, didactic innovations such as language games have gained increasing importance for promoting active, creative, and learner-centered teaching practices. The present study aims to analyze the impact of language games as an innovative pedagogical approach in fostering students' language competencies and their capacity for critical and creative thinking. The research is guided by the hypothesis that integrating language games into mother tongue instruction enhances engagement and motivation while fostering reflective learning, communication skills, and higher-order thinking abilities.

Additionally, the study explores how such games contribute to self-confidence, learner autonomy, and collaborative skills, particularly in heterogeneous and inclusive classrooms. Special attention is given to the perspectives of both teachers and students, examining the extent to which language games influence classroom dynamics, support personalized learning, and meet the demands of the 21st-century competency-based education model. By addressing these dimensions, the study responds to the core question of how the application of language games can serve as a catalyst for more effective, inclusive, and future-oriented teaching practices in Albanian pre-university education.

2 PURPOSE AND GOALS

The purpose of this study is to examine the impact of language games on the development of critical thinking, creativity, and language competencies among students in pre-university education in Albania, within the framework of the competency-based curriculum.

The research seeks to:

- Analyze how the integration of language games into mother tongue instruction influences students' engagement, communication skills, and reflective learning.
- Evaluate the contribution of language games to the development of self-confidence, autonomy, and collaborative learning in heterogeneous and inclusive classrooms.
- Identify the perceptions of teachers and students regarding the effectiveness of language games in supporting personalized learning paths and inclusive practices.

Research Hypothesis

The integration of language games into the teaching process enhances student motivation, improves communication and collaboration, fosters higher-order thinking, and serves as an effective tool for inclusive and future-oriented teaching practices.

3 THEORETICAL FRAMEWORK

Didactic innovations, particularly language games, represent one of the most effective strategies for fostering and developing critical and creative thinking among students at all levels of pre-university education. Their use creates an active and collaborative learning environment in which the student is directly involved, reflects on personal experiences, and constructs knowledge through interaction and interdisciplinary integration. These strategies not only enliven the learning process but also strengthen linguistic, social, and cognitive competencies, promoting sustained engagement, self-assessment, and autonomy in learning.

Tahiri and Hadaj (2022) emphasize that the mother tongue serves as the fundamental basis for acquiring knowledge across all subjects, fostering interdisciplinary integration as a key factor in students' intellectual development. In this context, language games as didactic tools support meaning-making through emotional, social, and cognitive engagement.

Linguistic interaction, as an essential component of effective teaching, is achieved through a wide range of tools, from direct communication and books to the use of modern technologies. Tahiri and Hadaj (2024) note that integrating technology into the teaching process enhances language development by creating new opportunities for interaction, personalization, and inclusive participation.

The learning process is constructed through linguistic, visual, and technological interaction, where elements such as games, dialogues, mental images, and digital platforms build bridges between learning content and students' personal experiences, respecting individual learning styles. De Corte (CDRSEE 2013) identifies four fundamental principles of active learning constructivism, self-regulation, contextualization, and collaboration all of which are fully aligned with the nature and function of language games. According to UNICEF (2018), inclusive education aims to eliminate barriers to participation and progress, while language games foster a positive environment, increase self-confidence, and encourage the active involvement of every student.

The ASCAP (2024) guidelines emphasize that teachers must connect key competencies with subject-specific competencies through integrated planning, which includes the selection of learning outcomes, annual objectives, methods, and didactic resources. A functional format for planning includes structured rubrics that help balance key competencies with subject-specific ones, actively supporting the development of critical and creative thinking.

Competency centers, focused on speaking, listening, reading, and writing, create multifunctional spaces that reinforce interdisciplinary skills, in accordance with the National Curriculum (MASR 2014). Contemporary classrooms enable the creation of thematic centers, such as those for language and communication, technology, and ICT, transforming the classroom into an environment open to interaction and exploration.

Modern teaching methodology requires the creation of a climate that fosters critical thinking, creativity, and collaboration, combining cognitive, affective, and social dimensions. Tahiri (2014; 2021) highlights the teacher's role as a builder of a positive and interactive climate, while Gjokutaj (2023) considers mother tongue teaching as a driver of critical thinking and free expression in various contexts. Recent studies also emphasize the analytical treatment of written tasks in lexicology and morphology as a means of developing language competence and metacognitive awareness, particularly through student-centered and task-based learning (Tahiri and Hadaj 2025).

Psychologists such as Vygotsky (1978) and Dewey (1938) emphasize that learning occurs through interaction and practical activity, while language games support the development of the zone of proximal development and promote reflection through creative challenges.

Hadfield (1999), Wright and Buckby (2006), Piaget (1952), and Gee (2003) have contributed to the literature supporting the role of play in logical, cognitive, and communicative development. Nation (2001) argues for the role of games in vocabulary acquisition and improving linguistic fluency, while Brown (2013) notes that games lower emotional barriers and naturally foster collaboration.

Peng et al. (2021) link the development of writing skills to metacognitive functions in second language learning, reinforcing the view that games develop complex thinking and self-regulation abilities.

According to MASHT (2024) and HDPC (2007), critical and creative thinking represent key competencies for facing the challenges of the 21st century. ASCAP (2021) emphasizes that the learning process

takes place in a wide spectrum of environments classroom, home, community, nature, or library enriching the learning experience and building a sustainable learning culture.

In line with the Curriculum Framework (KK) and MASR documents (2014; 2021), contemporary teaching supports interdisciplinary approaches and the use of technology to build 21st-century competencies: critical thinking, creativity, communication, and collaboration.

According to Mwamakula (2024), the lack of pedagogical innovation leads to passive learning, while university educators should promote the development of the "4Cs" as a foundation for quality and inclusive teaching. Tahiri (2025a) emphasizes that technology should be conceptualized as a pedagogical space for exploration and personalized learning, in line with Sustainable Development Goal 4 (SDG4), which aims for inclusive, quality, and equitable education for all (Tahiri 2025b).

The use of language games represents more than a didactic technique; it emerges as a teaching philosophy that places the student at the center, encourages critical thinking, and builds bridges between knowledge, personal experience, and life skills. As Maria Montessori stated, the aim of education is to cultivate the natural desire to learn, not to impose learning.

In this context, the use of language games is supported by constructivist and interactive approaches, forming the basis for the empirical analysis that follows and establishing a strong link between theory, practice, and competency development in pre-university education

4 METHODOLOGY

This study follows a combined theoretical and empirical approach to analyze the impact of language games on the development of students' critical and creative thinking in pre-university education. The choice of this approach is based on the need to integrate conceptual analysis with data collected from concrete pedagogical practice, enabling a deeper understanding of the role of language games as a didactic tool and to meaningfully connect theory with classroom reality. The theoretical approach serves to build the hypotheses and the analytical framework, while the empirical component helps to verify these hypotheses in practice.

The study is designed as a "single-case study," aiming for an in-depth exploration of an integrated teaching practice in a real school context. The qualitative approach, with elements of descriptive and interpretive analysis, aims to identify meaningful patterns of behavior, engagement, and perceptions of both students and teachers in the teaching process. This research design allows for a deep analysis of the mechanisms that generate engagement, reflection, and competency development.

The research was conducted at the public educational institution "Shkolla 1 Maji" in Tirana, including primary education (fifth grades) and lower secondary education (sixth and ninth grades), during the period in which the author served as school principal for more than a decade. The implementation of language games was carried out during regular mother tongue lessons, in accordance with the curriculum framework and the interdisciplinary objectives described in the theoretical framework.

Instruments and Data Collection

The data were collected using the following methods:

- **Direct observation** of teaching sessions, to identify didactic practices and interactions between teachers and students;
- **Document analysis**, including lesson plans, class journals, and students' worksheets;
- **Structured professional reflections**, documented through video recordings of teaching sessions, based on long-term experience as both a school leader and teacher;
- **Structured questionnaires**, developed in alignment with the competencies defined in the National Curriculum, to assess student engagement, critical thinking, and motivation. The questionnaires were pre-tested for validity, linguistic clarity, and duration;
- **Semi-structured interviews** with teachers and students, focused on their experiences and perceptions regarding the use of language games. The guiding questions were designed based on key competencies and adapted to each target group.

The instruments were pre-piloted with a small group outside the selected sample, to ensure clarity, alignment, and methodological reliability. Following the pilot phase, improvements were made to the formulation, and the number of reflective questions was expanded in order to encourage more in-depth and sincere responses.

Sample and Sampling

Participants were selected through purposeful sampling to represent teaching practices in environments with different characteristics, but all within the public education system. The sample included:

- 5 primary education classes (fifth grade) – a total of 132 students, aged 10–11;
- 3 lower secondary education classes (sixth grade) – 120 students;
- 3 ninth-grade classes – a total of 180 students.

No students were excluded from the data analysis. The analysis was carried out both in an integrated manner and separately, according to educational cycles and age groups, to understand the specific impact of games depending on students' developmental level.

Data Analysis

The data were organized and analyzed according to four main components:

- Student engagement and reactions during the use of language games;
- The quality of linguistic expression and classroom interaction;
- The development of critical thinking and collaboration skills;
- Students' self-assessment and motivation after completing the learning activities.

The analysis was conducted through thematic coding, where data from questionnaires, interviews, and observations were grouped into categories and subcategories based on the research objectives. In cases of discrepancies between sources, data triangulation was applied by combining different sources (questionnaire, interview, observation) to increase the reliability of interpretation and reduce subjective biases.

Additionally, a pre and post intervention comparison was conducted to assess the concrete impact of language games on student engagement, linguistic progress, and critical thinking, in accordance with the research hypothesis.

Use of SWOT Analysis

In addition to the above-mentioned methods, a **SWOT analysis** was also used as a tool for reflection and synthesis. It was built upon direct observations, student comments, and teacher reflections, identifying:

- **Strengths**: high engagement, student creativity, and improvement in communication;
- **Weaknesses**: lack of planning time and subject-related workload;
- **Opportunities**: use of technology and alternative assessment formats;
- **Threats**: curricular overload and lack of long-term institutional support.

Ethics and Credibility

The study was guided by the principle of educational and developmental purpose, respecting all ethical standards of scientific research: informed consent from parents and institutions, transparency in communication, and protection of anonymity. The data were processed and stored securely, used exclusively for research and academic purposes.

The credibility of the analysis was supported through triangulation of sources, the author's documented reflection, and the involvement of external colleagues (experienced teachers and school practice coordinators) to verify the interpretation of the data. The response from the school community, including parents and teachers, was positive and encouraging, recognizing the project as an innovative model that should be expanded to other levels of pre-university education.

5 RESULTS ANALYSIS AND DISCUSSION

In line with the empirical approach of this study, the data analysis was built upon five main sources: direct observation of teaching sessions, analysis of school documentation, structured questionnaires, semi-structured interviews with teachers and students, and the author's professional reflections. The sample included a total of 432 students: 132 from fifth grade, 120 from sixth grade, and 180 from ninth grade.

The selection of these groups aimed to include key transitional stages in the educational cycles, such as the shift from primary to lower secondary education and further into upper secondary education. This helped identify both common and specific challenges related to the adaptation to new teaching methodologies and the manageability of the competency-based curriculum.

Data triangulation served as a key mechanism to enhance the validity and reliability of the analysis, enabling the integration of findings from observations, interviews, and questionnaires to create a comprehensive overview of the impact of language games on the teaching and learning process. This convergence of sources allowed for the identification of both alignments and discrepancies among students' perceptions, behaviors, and outcomes, offering a more in-depth and objective analysis of the effects of implementing this innovative method.

5.1 Direct observation of teaching sessions

Direct observation was used as one of the key instruments to document student behavior, engagement, and interaction during the implementation of language games in the classroom. The data collected through this process indicate that one of the most notable impacts of this methodology was the creation of a safe, supportive, and stimulating environment for purposeful and free communication.

The teaching process unfolded in three main phases: introductory, developmental, and concluding.

In the introductory phase, the use of simple games and stimulating questions contributed to the activation of thinking, increased attention, and the initial involvement of students in dialogue through components such as listening, speaking, and critical thinking.

Activities such as role-plays, improvised dialogues, and the use of question cards created a collaborative atmosphere where students expressed themselves more freely, argued their ideas, listened actively, and built respectful relationships during discussions.

This phase marked a noticeable increase in student participation in activities requiring cooperation, reflection, and idea construction. A greater initiative to participate was observed, along with improved communication clarity and a classroom climate that supported the expression of independent thought.

These findings reinforce Vygotsky's theory of the zone of proximal development, which asserts that social interaction is essential to cognitive development, as well as Hadfield's (1999) perspective on the motivational role of play in the learning process.

Moreover, the games proved effective in reducing language anxiety, facilitating the natural involvement of students in communication activities.

Age-group analysis revealed several meaningful findings:

- **Fifth-grade students** significantly benefited in constructing simple sentences and engaging in spontaneous communication, gaining confidence in verbal expression.
- **Sixth-grade students** showed notable improvement in the functional use of grammatical structures and in their ability to collaborate more consistently.
- **Ninth-grade students** demonstrated clear development in the logical organization of ideas, reflective thinking, and argumentation skills, particularly in essay writing and digital project work.

In the developmental phase of the lesson, a deeper engagement of students in the learning process was observed, through a range of strategies that promoted critical thinking, effective collaboration, and linguistic creativity.

The implemented activities included: group debates, open ended question cards, the expert technique, the writing of reflective essays, as well as tasks requiring problem-solving or the creation of new linguistic products.

These strategies supported the development of critical analysis, argument construction, and the creative application of linguistic concepts. In particular, the use of exploratory questions shifted students from passive recipients to active learners and knowledge constructors a pedagogical approach aligned with practices described in contemporary literature (Tahiri, 2025).

Concrete Examples from Classroom Practice:

- In the fifth grade, the game *"Golden Ball of Yarn"* (question and answer in a circle) significantly improved free speech. One student stated: "I'm no longer afraid to speak in front of others because the game taught me to listen and speak in turn." This testimony reflects increased self-confidence and positive emotional involvement in the learning process.
- In the sixth grade, an activity with color-coded cards categorized by word functions contributed to improved grammatical accuracy and the construction of syntactic structures, reflected in both speaking and writing.
- In the ninth grade, one of the most successful activities was the *"Structured Role Debate"* on the topic: *"Is technology a help or a hindrance to learning?"* Students were divided into groups with assigned roles (pro, con, moderators, reflectors), prepared arguments supported by sources, composed speeches, and responded in real time to counterarguments. This activity developed skills in building logical arguments, using thematic vocabulary in real contexts, public speaking and active listening, as well as critical awareness of resource use and communication ethics.

The participating students reflected positively on the experience, describing the debate as a fun and challenging way to learn how to express themselves openly and rationally.

Comparative Analysis by Age Group:

- *Fifth-grade students* benefited the most in terms of basic vocabulary enrichment, simple sentence construction, and increased self-confidence in verbal communication through games that encouraged interaction and spontaneity.
- *Sixth-grade students* showed progress in transitioning from information reproduction to creative language production, using more complex structures and reflecting on their meaning.
- *Ninth-grade students* demonstrated advanced skills in reflective thinking, argument construction, and the use of abstract and thematic vocabulary, particularly in essays and projects related to social, environmental, and personal topics.

In terms of oral reading, consistent progress was observed: in fifth grade, 49% of students read accurately according to standards, while in ninth grade, reading speed increased from 180 to 205 words per minute, with an improvement in accuracy from 58.3% to 70%. These findings reinforce the hypothesis that language games positively influence fluency and accuracy in speaking and reading (ASCAP, 2024).

Additionally, the analysis of written essays showed clear improvements in text structure, the use of connectors, and vocabulary expansion, particularly following the implementation of the game *"Topic Rotation."*

Overall, the developmental phase revealed that the combination of language games with strategies such as focal debates, expert groups, guided imagination, mind maps, and argumentative essays led to increased interaction, communication quality, and independent thinking. This model aligns with Maria Montessori's philosophy, which emphasizes: *"The goal of education is not to force children to learn, but to nurture their natural desire to learn."*

During the *concluding phase* of the teaching process, a significant increase in students' focus on tasks requiring synthesis and reflection of learning was observed. Activities were designed to foster student autonomy, including the use of thematic dictionaries, self-assessments, mini digital projects, and the writing of short reflective essays on the topic addressed during the lesson.

This phase contributed to the internalization of learning content by connecting it with students' personal experiences and to the development of metacognitive competencies.

In this study, technology was not limited to the use of ready-made tools, but was approached as a platform for creation, reflection, and collaboration. Applications such as Canva, Padlet, Wordwall, and Google Slides were functionally used for:

- visualizing linguistic concepts,
- building real-time collaboration,
- student self-assessment through digital forms.

Students applied self-assessment forms to reflect on their progress in the areas of speaking, writing, listening, and participation in group work. These tools contributed to raising awareness about the learning process and developing personal autonomy, in accordance with the principles of constructivist approaches.

The use of technology in the teaching process was not reduced to a supportive role, but was transformed into a powerful tool for personalization, creativity, and reflection. This approach enabled differentiated inclusion of all students, meeting their diverse learning needs. It aligns with the findings of Tahiri and Hadaj (2024), who emphasize that technology should go beyond its assisting function and serve as a catalyst for meaningful knowledge construction.

The results gathered through observations and interviews showed a significant increase in student self-assessment and motivation. Most students described lessons that included language games as "enjoyable," "challenging," and "easier to learn." They reported feeling more confident in communication and collaboration, especially during group work.

Interviews and narrative analyses revealed that students perceived the lessons as more engaging, meaningful, and motivating when language games were integrated. Expressions such as "we learn by playing," *"it's easier to understand,"* and *"I'm no longer afraid to speak"* were identified across all age groups.

From the teachers' perspective, it was emphasized that student engagement particularly among those with learning difficulties was significantly higher during activities involving games. Furthermore, writing quality and oral fluency improved noticeably during these sessions.

These experiences align with the indicators of inclusive participation defined by UNICEF (2018), as well as with the body of literature that supports child-centered teaching. They also reinforce Dewey's principle that learning is a process that occurs through experience, interaction, and reflection. According to Dewey (1938), students must engage in environments that reflect social reality, as occurred in this study through games that simulated real-life communication situations.

In the same line, UNICEF (2018) encourages inclusive teaching approaches that place cultural sensitivity, emotional engagement, and equity at the heart of the educational process. Furthermore, the intercultural dimension was addressed through the selection of topics and games that respected and promoted cultural diversity, such as: working with proverbs, storytelling with characters from different cultures, and the creation of mind maps on cultural identity and coexistence.

5.1.1 Age specific impact and 21st-century competencies

The didactic activities applied through language games not only influenced the development of students' linguistic skills but also served as powerful stimuli for building key 21st-century competencies, including digital, intercultural, reflective, and collaborative skills. According to OECD (2018), future competencies include not only mastery of basic knowledge, but also the development of critical thinking, the ability to work effectively with others, and the use of technology to construct meaningful knowledge. In this context, language games integrated with contemporary teaching strategies emerged as effective tools for the holistic development of students.

A comparative analysis of results by age group revealed meaningful differences in how students from various educational levels benefited from the use of language games and interactive strategies in the learning process. Observations conducted in fifth, sixth, and ninth-grade classrooms demonstrated that while benefits were widespread, they were also tailored to students' developmental and age-related levels.

Fifth-grade students (ages 10–11):

This group showed significant gains in confidence when speaking in public, emotional activation, and the construction of simple sentences. Role-playing games and "question-and-answer circle" activities contributed to the development of listening skills, spontaneous reactions, and structured interaction. These findings align with Piaget's (1972) theory of development, which emphasizes that children at this age learn through concrete experiences and emotional engagement. Furthermore, according to Vygotsky (1978), play and social interaction are key factors in the development of language and thought.

Sixth-grade students (ages 11–12):

At this stage, students demonstrated notable progress in the functional use of language structures, construction of compound sentences, and active engagement in group work. The use of grammar games and color-coded cards based on word functions facilitated the shift from mechanical learning to meaningful and analytical learning. These results align with Gardner's (1983) multiple intelligences theory, which argues that diverse teaching methods enhance student engagement and success by adapting to their individual ways of thinking and learning.

Ninth-grade students (ages 14–15):

This group showed significant improvement in the organization of critical thinking, construction of argumentative essays, and analytical reflection on linguistic and social topics. Activities such as reflective essays, digital projects using tools like Canva, and the use of mind maps (clusters) supported argument development, conceptual linking, and vocabulary enrichment. This progress corresponds with Bruner's (1996) ideas, who emphasizes the importance of actively constructing meaning through symbols, narrative, and context.

The role of technology across all age groups:

For all groups, technology was not confined to passive use, but functioned as an empowering platform for expression, knowledge construction, and structured reflection. This conclusion reinforces the claims of Tahiri and Hadaj (2024), who argue that technology should be used not merely as a technical assistant, but as a tool for expanding students' creative, reflective, and critical capacities.

This development aligns with the pedagogical philosophy of Maria Montessori, who emphasizes the active role of the student in constructing knowledge through open and stimulating environments, as well as with John Dewey's approach, which views learning as a process built upon direct experiences and social interactions.

5.2 Analysis of school documentation

The analysis of school documentation, including lesson plans and class journals, demonstrated clear efforts by teachers to integrate an interdisciplinary approach and language game strategies in alignment with the competencies defined in the national curriculum. The structure of the lessons reflected a methodical organization into three phases: activation of prior knowledge, development of learning, and reflection and assessment—following the full-cycle learning model.

In the documentation, language games were not treated merely as entertaining tools, but as structured components of active learning. They served to stimulate critical thinking, free speaking, and collaboration among students, contributing to the development of linguistic, social, and digital competencies. This aligns with the competency-based approach of the Albanian curriculum, which emphasizes the construction of meaningful knowledge connected to real-life contexts (IZHA, 2014).

The analyzed documentation showed that teachers had begun to adopt an integrated lesson planning model, built on standardized rubrics such as: Learning Outcomes, Competencies Acquired by Students, Subject-Specific Competencies, Teaching Strategies, Learning Resources, Assessment, Keywords, Time, and Notes. This format not only structures the planning process but also supports didactic reflection and the alignment between objectives and classroom activities (Tahiri & Shegani, 2017).

One of the most meaningful elements was the interweaving of key and subject-specific competencies through the inclusion of language games as a bridging tool between content and learning processes. This demonstrates a sustainable approach to knowledge construction, in line with the constructivist principles of modern teaching (Bruner, 1996), where the student is positioned as an active builder of meaning rather than a passive receiver of information.

The competency-based class journal model, though still in the early stages of full implementation, represents a paradigm shift in teaching—from content-centered instruction to competency-centered learning. In this model, interdisciplinarity becomes tangible through the integration of learning areas and the creation of real-life situations where students can apply acquired knowledge in new contexts.

This organization of learning through the integration of language games and technology in planning transforms the classroom into a "learning laboratory," where not only academic but also personal and social competencies are developed. This model clearly reflects De Corte's (2013) defini-

tion of an effective learning environment as one in which interaction, reflection, motivation, and knowledge construction are closely interconnected.

In this context, the teacher becomes a facilitator of learning and a leader of student interaction, while students themselves take on active roles in the knowledge construction process. This didactic philosophy, supported by John Dewey's vision of experiential and active education (Dewey, 1938), further strengthens the system's orientation toward inclusive, quality education, where lifelong learning is grounded in experience, reflection, and interaction.

5.3 Structured questionnaires and semi-structured interviews

The data collected from structured questionnaires and semi-structured interviews with students and teachers revealed a clear positive impact of language games on students' self-assessment, motivation, and active engagement in the learning process. Students perceived these activities as *"enjoyable," "challenging,"* and *"different from traditional lessons,"* highlighting the importance of an emotionally safe climate and a sense of freedom to express thoughts within the group.

A sixth-grade student stated: *"I like it when we work in groups; I feel free to speak, and my classmates understand me better."*

The data from student questionnaires indicated a strong positive trend toward engagement and motivation during the use of language games. More than 80% of students reported feeling more comfortable speaking and making mistakes without experiencing pressure or fear. Meanwhile, approximately 65% stated that the games helped them think more deeply and creatively. This suggests that when games are used in a structured manner and aligned with learning objectives, they serve as catalysts for the development of metacognition and self-assessment.

In particular, the results demonstrated clear improvements in oral expression, text organization, and increased motivation, especially when the games were integrated with technology and digital presentation formats.

These findings reinforce the importance of building an open and collaborative classroom climate as a prerequisite for active and inclusive learning. This aligns with the principles of educators such as Maria Montessori (1948) and John Dewey (1938), who emphasized the fundamental role of social experience and interaction in the construction of knowledge.

On the other hand, teachers, in their post-lesson reflections and questionnaire responses, reported notable improvements in the participation of students with learning and communication difficulties, particularly through group work and the role of play as an active tool for reducing shyness and fostering emotional engagement. These data are consistent with the recommendations of UNICEF (2018), which highlight the importance of creating inclusive, child-centered learning environments where pedagogical innovations—such as play and technology—contribute to reducing marginalization and promoting equity in education.

Teachers' reflections indicated increasing awareness of the importance of play, technology, and personalized learning in the development of 21st-century competencies. They described play as a tool that enables the development of reflective thinking, the discovery of student potential, and increased engagement. According to them, play provides students with opportunities to learn in a differentiated manner and to construct lasting knowledge through experience.

Moreover, teachers emphasized the need for continuous professional development, particularly on topics related to designing play-based learning tools, integrating them with technology, and assessing competencies through playful situations. These reflections support Schön's (1983) approach, which underscores the essential role of professional reflection in improving practice and enhancing the quality of teaching.

5.4 Summary of student questionnaire data

The data collected from the student-administered questionnaires provide a meaningful overview of how language games influence their engagement, thinking, and motivation in the learning process. The analysis shows that approximately 75% to 80% of students feel more engaged during lessons where language games are used. Group activities are perceived as more approachable, less stressful, and as safe spaces where mistakes are not punished but considered part of learning.

Students with lower self-confidence in particular feel safer and more free to participate when the games are not built around intense competition.

Regarding the dimension of critical and creative thinking, over 65% of students reported that game-based activities encourage them to think independently and seek solutions. Many stated that they *"understand more easily through games than through traditional explanations,"* highlighting the transformative role of interactive methods. Exercises such as *"topic rotation"* and *"logic cards"* were valued as tools that help build more structured and content-rich essays.

In terms of motivation, it was found that between 85% and 90% of students look forward with enthusiasm to lessons that include language games. The games are perceived as a source of joy, freedom, and ease in learning, reinforcing the sense of full participation in the educational process. The positive atmosphere and flexibility created through games, according to students, help ensure the inclusion of all participants, regardless of their learning style or varying skill levels.

Interviews with students support these findings. They identified their favorite activities as *question-and-answer circle games*, *color-coded cards*, and *role-playing*. The perceived benefits included easier acquisition of new vocabulary, improved text comprehension, greater self-confidence in public speaking, and increased respect for peers' opinions. However, some students reported feeling uncomfortable when the game became highly competitive or when a winner was announced, suggesting the need to balance approaches and to create an inclusive environment.

Teachers' responses in interviews and reflections largely supported the students' perspectives. They reported a notable increase in engagement, particularly among students with learning difficulties, as well as improvements in speaking and writing. The role of games in fostering critical thinking especially through research tasks and reflective questioning was especially praised.

Nonetheless, teachers also highlighted several challenges. The lack of time for preparing materials and the absence of readily available resources make it difficult to systematically integrate games into daily planning. In this context, they emphasized the need for specific training, the development of structured models, and access to rich platforms with ready-to-use classroom materials.

These recommendations align with contemporary approaches to teacher professionalism as reflective practitioners, as emphasized by authors such as Gjokutaj (2014), who view reflection and ongoing development as essential for improving teaching practice.

5.5 SWOT Analysis of the Implementation of Language Games in Pre-University Education in Albania.

The data collected through various research instruments including observations, professional reflections, questionnaires, and interviews with students and teachers offer a broad and rich overview of the impact, potential, and challenges of using language games in the Albanian educational environment. To further structure the interpretation of these findings and highlight the key factors influencing the effectiveness of this method, a SWOT analysis was conducted, integrating pedagogical, institutional, and practical reflections.

Strengths: Language games proved to be a highly effective didactic tool for promoting active student engagement, increasing motivation to learn, and developing communication and collaboration skills. They contribute to the creation of an emotionally safe classroom climate, stimulating creativity and interaction. The data show that the purposeful use of games transforms the learning session into a more engaging and reflective experience, especially for students who struggle with communication or have low levels of motivation. Teachers reported that engagement through play reduces shyness and increases self-confidence, significantly improving the overall quality of learning.

Weaknesses: However, the analysis also highlighted several weaknesses in the practical implementation of this method. One of the most critical challenges is the lack of sufficient time within the instructional schedule to plan and regularly implement game-based activities. The subject load and pressure to meet curriculum objectives often leave little room for methodological innovation. Additionally, the lack of standardized resources, ready-to-use models, and content aligned with programs presents a real limitation. In some cases, games are used without a clear connection to learning objectives due to insufficient structured training and pedagogical planning.

Opportunities: On the other hand, the current educational context in Albania presents numerous opportunities for the broader application of this methodology. There is a growing willingness among teachers to integrate technology into the teaching process and experiment with new, interactive strategies. This trend aligns with policy documents and strategic recommendations from the Ministry of Education and international organizations such as UNICEF and OECD, which emphasize the importance of developing key 21st-century competencies, including critical thinking, creativity, and social interaction. A major potential lies in the use of digital platforms to create mother tongue-based games and apply alternative assessment formats that can enhance personalized and inclusive learning.

Threats: Nonetheless, several systemic and institutional threats remain. One of the most pressing barriers is the lack of sustained institutional support for didactic innovation, manifested in the absence of continuous training, financial resources, and a coordinated approach for incorporating new methods into school culture. Part of the teaching workforce still shows resistance to change, favoring traditional approaches. Administrative overload, tight schedules, and limited preparation time are additional factors that restrict the full integration of game-based learning in daily teaching practice.

Conclusion: The SWOT analysis offers a balanced perspective on the use of language games in pre-university education in Albania. It underscores the need for multi-dimensional interventions: from supportive institutional policies and professional teacher development, to the provision of appropriate resources and the creation of sustainable practices. Only in this way can language games evolve from an occasional methodological alternative into an integrated and effective component for more inclusive, student-centered, and high-quality education.

5.6 The author's professional reflections

In my role as a school leader and teacher with extensive experience in implementing the competency-based curriculum, I have had the opportunity to closely observe the impact of alternative teaching methods particularly language gamës on the improvement of mother tongue learning. The reflections presented below are based not only on the empirical data collected during this study but also on daily observations, professional discussions with colleagues, and direct interactions with students.

One of the most important findings has been the positive impact of games on student engagement, especially for those who typically exhibit passivity or shyness in traditional learning environments. In this context, the game emerged as a powerful bridge for creating a favorable, collaborative, and psychologically safe classroom climate, offering space for equal interaction and emotional involvement. It was observed that, through play, communication between teacher and student deepened, establishing a more authentic and supportive relationship.

On the other hand, experience has shown that teachers themselves benefit professionally from integrating games into their practice. Play is not only a method for increasing student interest but also an opportunity for pedagogical renewal. Teachers demonstrate increased creativity in lesson planning, adopt more flexible approaches, and manage to apply alternative forms of assessment, including self-assessment and peer assessment.

Through this process, the importance of continuous reflection on the benefits and limitations of using games as a didactic method became evident. Such reflection enables teachers to refine their strategies, adapt content to the specific characteristics of the classroom, and develop increasingly sustainable and effective forms of inclusive engagement. Professional experience also demonstrated that implementing games requires not only creativity but also a high level of pedagogical preparation, along with a well-developed culture of professional reflection at the school level.

In conclusion, these professional reflections emphasize the transformative role that games can have in the classroom for both students and teachers by turning the learning process into a meaningful experience, balanced between emotions, knowledge, and life competencies.

5.7 Data triangulation and interpretation of consistencies

To ensure the validity and reliability of the findings in this study, a triangulation approach was applied, combining five different data sources: direct classroom observations, analysis of school documentation (lesson plans, class journals, and instructional materials), structured questionnaires for students and teachers, semi-structured interviews, and the author's professional reflections. This

multi-source method of data collection and verification allowed for a balanced and integrated processing of information, enabling the confirmation of behavioral patterns, attitudes, and impacts across a wide range of contexts.

In particular, a high degree of consistency was found between data collected from classroom observations and students' questionnaire responses. This consistency was evident in the evaluation of active participation, increased self-confidence in speaking, and the positive experiences associated with language game-based lessons. Elements observed in classroom Dynamics such as spontaneous reactions, cooperation, and enthusiasm to participate were clearly reflected in students' responses, in which they described these lessons as *"enjoyable," "different,"* and *"more motivating."*

A meaningful consistency was also identified between the analysis of internal school documentation and teachers' statements during interviews, specifically in relation to a growing orientation toward flexible, competency-based methodologies. The documents analyzed reflected the inclusion of language games in lesson planning, with clear objectives linked to the development of critical thinking, communication skills, and collaboration.

However, the triangulation also revealed some partial inconsistencies, which were interpreted as important indicators for improvement. One such inconsistency involved students' perceptions of the competitive aspect of certain games, which in some cases created a sense of pressure—whereas teachers intended to use the games to promote inclusion and collaboration. This inconsistency highlights the need to reframe the approach to game implementation, so that it better aligns with the socio-emotional profile of the class and avoids dividing students into winners and losers.

The interpretation of triangulated data enriches the overall analysis by offering a deeper understanding of participants' experiences and the factors influencing the success of language game implementation. The multiple consistencies across data sources provide stability and integrity to the study's findings, while the partial discrepancies offer a valuable foundation for professional reflection and further development of didactic practices.

5.8 Synthesis of results in relation to the theoretical framework (concluding discussion)

The data from this study fully confirm the value and effectiveness of language games as a didactic strategy for fostering critical thinking, developing creativity, and improving communicative and social skills in pre-university education. These findings support the constructivist approach to learning, which emphasizes that knowledge is constructed through direct experience, interaction, and the learner's own reflection (Piaget, 1977; Vygotsky, 1978; De Corte, 2013).

In line with Dewey's (1938) educational philosophy, which regards learning as an experience connected to real life, play is not merely entertainment but a powerful tool for knowledge construction. It engages the student as an active participant and co-creator, encouraging exploration, collaboration, and reflection. Bruner (1966) highlights the lack of a stable theory of teaching and the role such a theory plays in structuring the learning experience. Kivunja (2015), building on this approach, emphasizes the importance of adapting teaching to dominant intelligences in order to stimulate critical thinking.

Furthermore, the use of interdisciplinary and interactive approaches that characterizes this study reflects the contemporary definitions of key 21st-century competencies, as articulated by UNESCO (2017) and OECD (2018). These competencies include the ability to solve problems creatively, critical thinking, effective communication, technological literacy, and the development of active citizenship.

An important observation relates to the positive impact of language games on creating a supportive, safe, and inclusive classroom climate. This aligns with the perspectives of UNICEF (2018) and Gordon (2003), who stress that environments dominated by emotional security and respect for diversity are essential for quality teaching and sustainable learning.

Likewise, this study supports the experiential learning model and Gardner's (1993) theory of multiple intelligences, showing that language games stimulate various thinking and learning styles by simultaneously activating verbal, interpersonal, visual, and kinesthetic components. This diversity of engagement facilitates personalized learning and more effective knowledge construction.

The alignment between empirical results and the competency-based curriculum model (MASR, 2020) clearly demonstrates that language games can be naturally and effectively integrated into

lesson planning and implementation, enhancing the teacher's role as a facilitator and guide of the learning process (Tahiri & Shegani, 2017).

In conclusion, the data collected in this study not only confirm the reliability of the selected theoretical framework but also enrich it through practical evidence in the Albanian context. Language games should not be seen as incidental interventions in the learning process, but rather as essential and structured strategies that contribute to building a modern, inclusive, and competence-oriented education aimed at preparing students for life and active citizenship.

6 RECOMMENDATIONS

Based on the analysis of empirical data and the theoretical discussion developed in this study, a series of concrete recommendations are proposed to improve teaching practices and to strengthen the use of language games in pre-university education in Albania:

1. **Develop professional training modules for teachers**, focused on the pedagogical use of language games and their integration into competency-based lesson planning. Trainings should include theoretical foundations, practical examples, and clear guidelines for formative assessment in playful learning contexts.
2. **Create digital platforms and practical guides**, grounded in scientific evidence, that feature structured games adapted to age, language level, and curricular objectives. Such platforms may integrate interactive tools like Canva, Wordwall, Quizizz, and other technological applications.
3. **Include language games in official curricular documents** as part of the recommended methodologies, positioning them as standardized tools to foster critical thinking, language development, and the inclusion of students with diverse learning needs.
4. **Promote a culture of professional collaboration among teachers** to share best practices, co-create new games, and build a national repository of tested and standardized materials that support language learning through play.
5. **Integrate educational technology intentionally and effectively**, by using digital language games that support personalized learning, increase motivation, and facilitate the inclusion of all students, in line with the requirements of modern education.
6. **Implement pilot projects in public and private schools**, in cooperation with local educational institutions and international organizations such as UNICEF, OECD, and curriculum development partners, with the aim of testing and evaluating the impact of language games on improving the quality of teaching and learning.

7 CONCLUSIONS

The undertaken study sheds light on the transformative role of language games in the teaching of the mother tongue in pre-university education, positioning play not merely as a supporting method, but as an essential strategy for fostering inclusion, linguistic development, and the construction of life competencies. The evidence collected through various research instruments demonstrates that play has a multifaceted impact on students: it increases self-confidence, strengthens communication, stimulates critical reflection, and creates a positive learning climate.

The alignment of the results with the contemporary theoretical framework, as well as with the competency-based curriculum model implemented in Albania, makes this approach both feasible and necessary in teaching practice. The use of games in instruction transforms the classroom into a space of interaction, experimentation, and growth, supporting the teacher in their role as a facilitator and mentor of active learning.

In this context, language games represent a powerful bridge between the joy of learning and the demands of modern education for the development of sustainable competencies. To ensure successful and sustainable implementation, institutional support, professional training, and the cultivation of a collaborative culture among teachers are essential. Only through such a synergy between theory and practice can play take its rightful place in the construction of a quality, inclusive, and forward-looking education system.

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1.09 Objavljeni strokovni prispevek na konferenci
Published professional conference contribution

THEORETICAL-METHODOLOGICAL PROBLEMS OF THE SCIENCE OF SOCIAL WORK AND HIGHER EDUCATION OF SOCIAL WORKERS

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ABSTRACT

This paper deals with the fundamental crisis within the science of social work, which affects both its scientific constitution and the quality of higher education for practitioners. The paper argues that the rapid evolution of practical needs has significantly outpaced the development of the discipline's key components: its subject of study, theory, and methodology. Through a critical literature review, the paper deconstructs this problem by analyzing key theoretical and methodological texts. The findings reveal three main problems: (1) a persistent lack of a valid, scientific definition of social work as a field of study, which complicates its demarcation from related disciplines; (2) a consequent weakness in scientific theory, which is often conflated with general theory or practical methods; and (3) a subsequent stagnation in specialized methodology. As a solution, the paper synthesizes these findings to reaffirm the necessity of an "integral approach," which is based on the axiomatic postulates of connections and relationships, pervasiveness and interdependence, and the inseparable dialectical unity of its components in the science-profession and methodology-methodics relationships. The discussion concludes that resolving these fundamental problems is a prerequisite for designing effective university curricula and for advancing social work as a robust, evidence-based scientific discipline.

Keywords: *Science of Social Work, Higher Education, Methodology, Integral Approach, Theory-Practice Gap.*

1 INTRODUCTION

The dynamics of developing needs and changes in the practice of social work (Payn 2001; Dervišbegović 2003) are significantly more pronounced and greater than the development of the discipline's key scientific components: its theory, methodology, and methods (Termiz 2005). Unfortunately, there is a clear scientific deficit of relevant academic papers dealing with the problems of normal behavior and life (Čekić n.d.; Jugović 2002), which is an essential starting criterion for distinguishing social work clients in a state of pronounced social need. The task of scientific theory is to provide definitions that meet the requirements of valid logical and methodological rigor, yet the field struggles with this fundamental step (Milosavljević 2023).

This fundamental weakness creates a series of problems. The consequences of the absence of a valid definition of the subject can be classified into two extreme understandings: first, as mere administrative-practical and professional activities, and second, as sub-sciences of sociology, pedagogy, and other already constituted sciences, along with its inadequate classification within the educational sciences (e.g., Rossner and other German theorists). Based on this, it can be concluded that the science of social work is either disputed or, to put it mildly, not yet fully constituted. This directly causes inadequate positioning in the system of science and prevents appropriate demarcation from other disciplines. Without a consensual scientific definition, the science of social work faces significant challenges in demarcating its field of research, which often leads to an eclectic, multidisciplinary character where the unique scientific core of the discipline is blurred (Termiz 2022). Contemporary situations, therefore, require an "integral approach" - a critical synthesis of positive knowledge from all theoretical-methodological paradigms to build a coherent scientific identity (Termiz 2001).

The impetus for this paper also stems from a collaboration with Alen Mušović, MA, on researching theoretical-methodological problems in the science of social work. This collaboration resulted in preliminary research and a proposal for a doctoral dissertation project titled 'Theoretical-Methodological Problems of Designing Scientific Research in the Science of Social Work' at the European University Brčko District, under the mentorship of prof. dr. Dževad Termiz.

This paper argues that resolving these fundamental issues is a prerequisite for the advancement of social work as a science and the improvement of the higher education of its practitioners. Therefore, the primary goal of this paper is to deconstruct these theoretical-methodological problems through a critical literature review. In doing so, we intend to establish the necessity of the 'integral approach' as a foundational framework for this task.

2 METHODOLOGY

This paper applies a qualitative research methodology, specifically a critical literature review. The aim of this method is to systematically identify, evaluate, and synthesize the existing body of scientific work on theoretical and methodological problems in the science of social work, in order to build a cohesive, evidence-based argument for the integral approach.

2.1 Research Question

The central research question guiding this review is: *What are the key theoretical and methodological problems that hinder the scientific constitution of social work, and how do these problems affect the higher education of its practitioners?*

2.2 Selection of Sources (Inclusion and Exclusion Criteria)

To ensure a rigorous and relevant review, a systematic selection process was applied. The review included peer-reviewed scientific articles, academic books, and conference proceedings published primarily between 1990 and 2025, a period reflecting the development of modern social work science in the region. While there were no strict language restrictions, the focus was on works in B/H/S (Bosnian/Croatian/Serbian) and English.

- **Inclusion Criteria:** Sources were required to directly address the definition of social work as a science, the development of its specific methodology, the state of its theoretical frameworks, or its relationship with other social sciences.

- **Exclusion Criteria:** Works focused exclusively on practical techniques ("methodics") without a methodological or theoretical basis were excluded, as were unpublished works and literature based on anecdotal evidence.

2.3 Search Strategy

The literature search was conducted in the Scopus, Google Scholar, and regional academic databases. Keywords were used in English and B/H/S, including: "theory of social work", "methodology of social work", "nauka o socijalnom radu", "definicija socijalnog rada", and "integralni pristup". Boolean operators (AND, OR) were applied to combine keywords.

- Number of initially found works: Over 400.
- Number of works after filtering: After applying the criteria based on titles and abstracts, this number was reduced to approximately 60 relevant sources for detailed analysis.

2.4 Process of Literature Analysis

The analysis of the selected sources, presented in the "Results" chapter, was not a mere summarization, but a critical evaluation. A comparative analysis of existing definitions and theoretical frameworks was conducted to highlight inconsistencies, conceptual weaknesses, and logical shortcomings (e.g., historical inaccuracy of definitions, insufficient demarcation from related disciplines). Special attention was paid to identifying methodological gaps, such as the conflation of the terms methodology and methodics, and the gap between theoretical premises and practical application in social work. The goal of this critical process was to argue for the necessity of the proposed "integral approach" through a synthesis of the identified problems.

2.5 List of Key Publications for Analysis

From the corpus of 60 relevant sources, a representative group of 15 key publications was selected for in-depth synthesis and critical analysis, as they best illustrate the central theoretical and methodological debates in the field:

- Bećin, A. (1977). *Science of Social Work (anthology)*. Belgrade.
- Bourdieu, P. (1999). *Outline for a Theory of Practice*.
- Dervišbegović, M. (2003). *Social Work - Theory and Practice*.
- Halmi, A. (2020). *Contemporary Approaches and Methodology of Social Sciences*.
- Halmi, K. (2003). *Strategies of Qualitative Research in Applied Social Sciences*.
- How, S. (1997). *Introduction to the Theory of Social Work*.
- Martinović, M. (1987). *Scientific Foundations of Social Work*. Zagreb.
- Milosavljević, M. (2023). *Fundamentals of the Science of Social Work*.
- Milosavljević, S., & Radosavljević, I. (2013). *Fundamentals of Methodology of Political Sciences*.
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3 RESULTS

Critical Analysis of Fundamental Problems. The critical analysis of the selected literature was not a mere summarization, but an evaluation of key arguments, which revealed three interconnected fundamental problems that hinder the development of the science of social work.

3.1 Fundamental Crisis of Definition

The analysis confirms a persistent lack of a scientifically robust and consensual definition of the subject of social work. Existing definitions, although valuable, often exhibit critical shortcomings. For example, Bećin's definition of social work as a "public activity" is

historically inaccurate, as the field originated from private initiatives, and it fails to specify its unique characteristics in comparison to other public services. Similarly, Halmi's definition, which focuses on the "transfer of knowledge into practice," describes a characteristic common to all applied sciences and therefore does not sufficiently demarcate the unique domain of social work. A critical review of the works of other key authors, such as Martinović (1987) or Payn (2001), reveals similar problems of insufficient precision, confirming that the lack of consensus is not an isolated case but a systemic problem of the field. This lack of a precise definition hinders the constitution of the science, its theory, and its methodology. Based on a synthesis of these critiques, a working definition is proposed:

The subject of the science of social work is a permanent, developmental, and complex social phenomenon whose essence is the provision of social assistance to members of society who are in or approaching a situation of pronounced social need that they cannot overcome on their own (Termiz 2001).

3.2 Consequences: Weak Theory and Disciplinary Demarcation

The lack of a clear definition directly contributes to the weakness of scientific theory. The analysis shows a frequent conflation of general theory and scientific theory, as well as methodology (the science of methods) and methodics (practice techniques). This leads to a state where social work is often perceived as a "multidisciplinary" or "eclectic" field, which relies heavily on psychology, sociology, pedagogy, and law without a clearly defined, original scientific core. For example, therapeutic models in social work often directly adopt concepts from related disciplines (Vidanović, 1987) without sufficient adaptation to the specific needs of clients in a state of social need, which further blurs the discipline's boundaries. This problem is exacerbated by the fact that many senior scholars in the field originated from these other disciplines, unintentionally perpetuating the influence of their "home" science.

3.3 Methodological Stagnation

The third key finding is the underdeveloped state of specialized social work methodology. The analysis reveals that the field disproportionately relies on methodics - "how" to act in an intervention - while neglecting fundamental methodological issues such as research design, data processing, and scientific reasoning.

The problem here is not the existence of methodics as such, but its separation from methodological foundations. The existence of social work methodics is undeniable, as social work is practiced in real life as a professional activity carried out according to rules derived from scientific knowledge. Therefore, if the rules of professional work have arisen from scientific knowledge confirmed in practice, the existence of work methodics as an instructive-research activity cannot be disputed. It is crucial, however, to ensure that these methodics are based on scientific methodology, rather than replacing it.

This results in an oversimplification of research classifications and a failure to develop a robust system of scientific methods specific to the field's unique subject. The persistent but erroneous debate about qualitative versus quantitative paradigms further obscures the path toward an integrated, problem-oriented methodological approach.

4 DISCUSSION

The findings confirm the central thesis that a robust and specialized methodological framework is crucial for the advancement of social work as a science and as a profession. The identified deficit is not just an academic gap, but a practical obstacle to the development of effective evidence-based interventions. The "integral approach" emerges from the analysis not as just another theory, but as a meta-methodological strategy for resolving this persistent problem. It entails the critical study and selection of positive knowledge from all theoretical-methodological directions and paradigms, based on the inseparable dialectical unity of science and profession, methodology and methodics,

and scientific and professional research as a basis for the improvement of social practice. This is not just a call to mix methods, but a systematic process of critically evaluating and synthesizing knowledge from all sources to build a coherent scientific foundation.

4.1 Implications for Higher Education

These fundamental problems have profound implications for the higher education of social workers. A curriculum based on a poorly defined scientific core risks producing practitioners who are skilled in techniques ("methodics") but lack the deep theoretical and methodological understanding necessary for critical thinking and evidence-based practice. An analysis of existing curricula often reveals an imbalance, where methodological training is reduced to learning about individual methods, instead of developing the capacity for independent scientific research. Resolving the fundamental issues of the science is therefore not a purely academic exercise; it is a prerequisite for designing curricula that can produce truly competent, scientifically grounded professionals capable of adapting to the evolving complexities of the field.

4.2 Limitations of the Research

Finally, it is necessary to highlight the limitations of this research. Since the methodology is based on a critical literature review, the findings are primarily theoretical and conceptual in nature and are not derived from new empirical data. Therefore, although this paper establishes a solid framework for understanding the fundamental problems of the discipline, future empirical research is crucial to validate these theses and test the application of the 'integral approach' in practice.

5 CONCLUSION

The definition of the phenomenon-process of social work as a subject of science represents not only the pinnacle of scientific work, but also an essential foundation and condition for the constitution of the science of social work, its scientific theory, and its methodology. By deconstructing the fundamental problems of the discipline, this paper has confirmed this thesis, pointing to critical weaknesses that stem precisely from the unresolved issue of definition. The key findings are that the distinction between theory and methodics must be clarified, and that the discipline must overcome simplistic methodological divisions through an 'integral approach,' which rests on the unity of theory and practice, and of quantitative and qualitative knowledge.

The identification and scientifically acceptable resolution of these theoretical and methodological problems, in accordance with the postulates of the scientific paradigm, serves the function of adequately positioning the science of social work as an academic discipline within the system of science. This enables the organization and realization of contemporary scientific research, the results of which are crucial for the further development of the science itself. Based on such research, it is possible to create modern educational curricula, the implementation of which in higher education institutions educates competent social workers. Resolving these fundamental problems is therefore not just an academic, but an essential step in ensuring that future social workers are educated not as technicians, but as scientific professionals - researchers and practitioners capable of successfully facing existing and new challenges in the practice of contemporary society.

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1.08 Objavljeni znanstveni prispevek na konferenci
Published scientific conference contribution

PARENTAL OPINIONS ON SCREEN USE IN EARLY AND PRESCHOOL-AGE CHILDREN

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ABSTRACT

In contemporary society, technology plays a significant role in the lives and habits of children, including those in early and preschool age. Screen exposure, ranging from television to mobile devices, is becoming increasingly frequent, raising questions about its potential impact on child development. Experts in early childhood development increasingly highlight the possible risks associated with excessive screen use, such as negative effects on attention, social skills, and emotional development. The present study examines parents' opinions on the amount of time their children spend in front of screens, the content they are exposed to, and parental attitudes towards screen use, as well as their awareness of its consequences. The research was conducted through an online questionnaire designed specifically for this study. A total of 203 parents of early and preschool-age children participated in the study. The results show that more than half of the parents reported that their child spends less than one hour per day in front of screens. A smaller percentage of parents stated that their children spend one hour or 2–3 hours, while the smallest number of parents reported four or more hours of screen time. The findings also indicate a significant level of parental awareness regarding the potential risks of excessive screen use. This insight can be valuable for professionals working with parents and children, such as those in preschool institutions, to further educate them on screen use strategies that are more appropriate for children's development. Empowering parents through workshops or informational programs may further encourage them to set time limits and engage in co-viewing activities to mitigate the negative consequences of excessive screen use.

Keywords: *Screen impact, Parents, Early and preschool-age children.*

1 INTRODUCTION

Since the 1990s, when the Internet first entered private households, the everyday lives and routines of families have been profoundly transformed (Kokorić, 2020, p. 34). Today, children are exposed to technology from birth, and the presence of digital devices in their environments is virtually unavoidable. Although technology offers certain developmental advantages, such as opportunities for learning and entertainment, it also raises concerns about potential risks (Anderson & Subrahmanyam, 2017). The American Academy of Pediatrics (AAP, 2016) recommends that children under the age of two should not be exposed to screens at all, underscoring the sensitivity of this developmental stage. Similarly, the World Health Organization (WHO, 2019) issued guidelines advising that children under the age of two should avoid any screen exposure, while those aged 2–4 should not exceed one hour of sedentary screen time per day. Despite these guidelines, research consistently shows that very young children do, in fact, spend time in front of screens. For instance, De Decker et al. (2012, p. 54) examined screen time among preschool-age children in six European countries and found large variations: children in Germany and Spain typically spent up to 30 minutes per day in front of screens, Greek children up to an hour and a half, while in Belgium, Poland, and Bulgaria, parents reported that preschoolers could spend as much as four hours daily using digital media. Similar patterns are observed in Croatia. A large-scale study conducted in 2017 with 653 parents of preschool children revealed that 80% of children live in households with five or more small screens, and about one-third even have a television in their bedrooms. On average, Croatian children were found to spend 2.42 hours on weekdays and 3.03 hours on weekends using electronic devices. Comparable findings have been reported in the United States, where children from birth to eight years of age spend an average of about two hours per day engaged with screen media (Rideout, 2017). These findings suggest that screen exposure has become a normalized part of family life, even among the youngest children.

The implications of early and frequent exposure are far-reaching. Research by Chonchaiya and Pruksananonda (2008, p. 978) demonstrated that children with language delays began watching television approximately ten months earlier than children with typical development. Similarly, Lapierre (2012, p. 840) pointed out that background television can disrupt play and communication, leading to fewer and lower-quality parent–child interactions. Such disruptions may negatively affect language acquisition, cognitive development, executive functions, and attention in children under the age of five. These findings highlight that screen use is not a neutral activity but one that can shape developmental trajectories.

At the same time, the family environment plays a decisive role in shaping children's habits, values, and attitudes. Early childhood is the period in which fundamental values and patterns of behavior are formed and tend to remain stable throughout life (Miliša & Zloković, 2008, p. 41). Parents, as primary agents of socialization, also strongly influence children's media use (Ilišin, Marinović Bobinac, & Radin 2001, p. 27). As Spitzer (2021, p. 65) notes, children frequently imitate their parents' behavior, including media-related habits, which are passed down across generations. This perspective emphasizes that the discussion about screen exposure cannot be separated from the context of parental practices and family dynamics.

However, even though many parents are aware of the possible negative consequences of excessive screen use, they often face daily challenges in balancing their children's needs with their own responsibilities. Digital devices are sometimes used as a way to find moments of rest or manage demanding routines. Spitzer (2021, pp. 75–76) describes a longitudinal study with 183 parent–child pairs of children under five years of age, showing that digital device use disrupted everyday parent–child interactions, contributed to increased maternal depression, frequent parental conflicts, and overall dissatisfaction with parenting (p. 78). These findings underline the complexity of parental attitudes toward screen time: while parents recognize its risks, they may also rely on it as a coping strategy in their daily lives. Beyond developmental outcomes, research also points to the psychological risks of excessive screen exposure. A large-scale population-based study conducted by Twenge and Campbell (2018) found consistent associations between higher amounts of screen time and lower psychological well-being among children and adolescents, including reduced emotional stability, less curiosity, and increased difficulties with self-control and interpersonal relationships.

These findings suggest that the effects of screen use extend beyond cognitive and language development, raising important concerns for children's and adolescents' overall mental health.

Taken together, the reviewed literature indicates that children's screen use is a multifaceted phenomenon shaped by developmental vulnerabilities, parental practices, and broader social and cultural trends. Understanding how parents perceive and regulate screen use in early and preschool-age children is therefore crucial for developing guidelines and interventions that support both child development and family well-being.

2 RESEARCH METHODS

2.1 Research Aim and Implementation

Given the research findings indicating that parents are the primary agents of socialization, including media use, this study aims to explore the opinions of parents of early childhood and preschool-age children regarding screen use, the content their children watch, and the time spent in front of screens. Additionally, the study seeks to assess parents' awareness of the negative impact of screen exposure on child development.

For the purpose of this research, a questionnaire was designed and distributed to parents via social media. Participation in the study was voluntary, and respondents were informed about the purpose and objectives of the research, the method of data collection, as well as the confidentiality and anonymity of their responses, in accordance with the Ethical Code. The results of this study are presented within a scientific and methodological framework.

2.2 Instrument and Statistical Methods

For the purpose of this research, a self-administered questionnaire was developed and distributed online through social media platforms. The questionnaire was specifically designed for this study and included items addressing children's daily screen time, the type of content they watch, the programs they most frequently use, as well as parental attitudes and awareness regarding the impact of screen use on child development. In addition to demographic information about the parents and their children, the instrument consisted of both closed-ended and Likert-scale questions to capture a broad spectrum of parental opinions.

The collected data were analyzed using descriptive statistics (frequencies, percentages, means, and standard deviations) to summarize parental reports on screen use and attitudes. Furthermore, inferential statistical analyses were conducted, including regression analysis and ANOVA, in order to identify significant predictors of children's screen time and to test the relationships between parental attitudes, awareness, and reported screen use. These methods provided a deeper understanding of the factors influencing children's daily screen exposure and parental regulation practices.

2.3 Sample

A total of 203 parents participated in the study. Among the respondents, 192 were women (94.1%), indicating that the majority of participants were mothers. Eleven participants were men (5.4%), representing fathers. This gender distribution highlights the significant predominance of mothers in the research sample, which is a common occurrence in studies related to family and parenting topics.

The average age of the participants was 35 years (M=35.01, SD=5.33), with the youngest participant being 21 years old and the oldest 50 years old. In terms of education level, 77 participants (37.7%) had a secondary education, 30 participants (14.7%) had a post-secondary degree, and 95 participants (46.6%) held a university degree. The largest proportion of respondents had a university degree (46.6%), while the smallest group had a post-secondary education (14.7%). Participants with a secondary education made up just over one-third of the sample (37.7%).

Regarding employment status, 180 participants (88.2%) reported being employed, while 22 participants (10.8%) stated that they were not employed. Most respondents had one or two children (86.8%), while a smaller number had three or four children (12.3%). The majority of participants became parents between the ages of 18 and 35, with the highest concentration of first-time parents in the 26–30 age group.

3 RESULTS AND DISCUSSION

Table 1: Descriptive Statistics of Key Variables

Variable	Min	Max	Mean	Std. Deviation
Child's Age	1	6	4.55	1.39
Daily Screen Time on Weekdays	1	5	1.71	0.99
Daily Screen Time on Weekends	1	5	2.03	1.11

The average age of children in the study is 4.55 years. The standard deviation is 1.39, indicating that children's ages are relatively evenly distributed within the preschool period. The average screen time on weekdays is 1.71 hours, meaning that most children spend less than 2 hours in front of screens on weekdays. The standard deviation is 0.99, suggesting a moderate variation in the amount of time children spend using screens. On weekends, the average screen time increases to 2.03 hours, indicating that children spend slightly more time in front of screens compared to weekdays. The standard deviation is 1.11, which also suggests moderate variability in this measure.

Table 2: Types of Content Children Watch

Content Your Child Watches	**N**	**%**
Advertisements	21	10.6%
Songs	89	44.7%
Cartoons	154	77.4%

In the part of the study focusing on the content children watch, the results show the following: 21 participants (10.6%) reported that their child watches advertisements, 89 participants (44.7%) stated that their child watches songs, and 154 participants (77.4%) indicated that their child watches cartoons, which represents the largest share. From these data, we can conclude that cartoons are the most popular type of content among children in this sample, while advertisements are the least watched.

Table 3: Most Frequently Watched TV Programs by Children

The TV Program Your Child Watches Most Frequently	**N**	**%**
RTL Kockica	31	14,6
Baby TV	11	5,2
YouTube	87	41,0
Netflix	18	8,5
HBO	2	0,9
HRT3	21	9,9

In the section of the study regarding the TV programs children watch most frequently, the data shows that the largest number of children, 87 (41.0%), watch YouTube, making it the most popular choice. The second most popular program is RTL Kockica, watched by 31 children (14.6%). HRT3 is followed by 21 children (9.9%), while 18 children (8.5%) choose Netflix. Baby TV is watched by 11 children (5.2%), and only 2 children (0.9%) watch HBO. A total of 170 valid responses (80.2%) were provided, while 42 children (19.8%) did not provide information about the programs they watch. These results show that children prefer digital platforms like YouTube, while traditional television channels are less popular.

Table 4: Parental Opinions on Screen Use and Its Impact on Child Development

Statement	N	Min	Max	M	SD
I believe screens have a negative impact on children's development.	203	1.00	5.00	3.93	1.11
I believe parental screen exposure influences the time children spend in front of screens.	203	1.00	5.00	3.93	1.03
I believe children can benefit from watching screens together with their parents.	203	1.00	5.00	3.40	1.01
I have had the opportunity to inform myself about the impact of screens on child development.	203	1.00	5.00	3.82	1.14
I allow my child to use screens during meals.	203	1.00	5.00	2.04	1.36
I believe children of early and preschool age should not be allowed to use screens without time limitations.	203	1.00	5.00	4.25	1.35

The results of the study show that, on average, parents believe that screens negatively impact child development (M = 3.93; SD = 1.11) and that their own screen exposure affects the amount of time their children spend in front of screens (M = 3.93; SD = 1.03). While they recognize the potential benefits of co-viewing screens with children, agreement with this statement is moderate (M = 3.40; SD = 1.01). Most parents report having had the opportunity to educate themselves about the impact of screens on child development (M = 3.82; SD = 1.14). On the other hand, parents, on average, rarely allow screen use during meals (M = 2.04; SD = 1.36). They clearly express the belief that young children should not be allowed unlimited screen use (M = 4.25; SD = 1.35), indicating a high level of awareness regarding the need to limit screen time.

Table 5: Parental Use of Child's Screen Time

The time my child spends in front of screens is used for:	N	%
Cooking	35	16,5
Organizing and cleaning	93	43,9
Work obligations	25	11,8
All of the above	13	6,1
During meals	1	0,5
We watch together	10	4,7
Total	**177**	**81,6**

The results show that most parents use the time their child spends in front of screens to perform household tasks such as tidying up and cleaning (43.9%), while 16.5% of them use this time for cooking. A smaller percentage of parents use this time for work-related tasks (11.8%) or for all of the listed activities combined (6.1%). Only a small number of parents (0.5%) use screen time during meals, and 4.7% use this time to watch content with their child. These results differ from a study published in the journal Pediatrics (2014), where the study observed a total of 55 family meals in 15 Boston restaurants, and 16 of the observed meals showed mobile phone use during the meal. In total, 83.5% of parents provided one of these responses, while 16.5% did not provide an answer.

Table 6: Regression coefficients for predictors of screen time on weekdays

Predictor	B	Std. error	Beta	t	p
(Constant)	3,85	0,54	–	7,09	< .001
Attitude towards the negative impact of screens on child development	-0,36	0,07	-0,38	-5,35	< .001
Use of time	-0,04	0,06	-0,05	-0,73	0,46
Child's age	0,11	0,04	0,19	2,67	0,008
Parent's age	-0,02	0,01	-0,08	-1,10	0,27
Awareness of the impact of screens on child development	-0,16	0,06	-0,19	-2,59	0,01

Note: Dependent variable: Time spent by the child in front of screens on weekdays

Regression analysis revealed that some predictors are significantly associated with the time children spend in front of screens on weekdays. The parents' attitude about the negative impact of screens on child development was a significant negative predictor (B = -0.360, p < 0.001), suggesting that parents who believe screens have a harmful impact on children's development tend to limit screen time. Additionally, the child's age was a significant positive predictor (B = 0.114, p = 0.008), indicating that older children spend more time in front of screens.

Parents' awareness of the impact of screens on child development was also a significant negative predictor (B = -0.164, p = 0.011), suggesting that parents who are more informed about this topic tend to limit the time their children spend in front of screens. On the other hand, the parents' age was not a significant predictor (B = -0.016, p = 0.271), indicating that attitudes and behaviors related to screen usage do not depend on the parents' age. Furthermore, how parents use their time while their child is in front of a screen was not a significant predictor (B = -0.040, p = 0.461).

These results suggest that parental attitudes and the level of awareness play an important role in regulating the time children spend in front of screens, while other factors, such as the parents' age and how they use their time, were not significant in this model.

Table 7: ANOVA Analysis of Predictors of Screen Time

Model	Sum of Squares	Degrees of Freedom	Mean Square	F	Significance
Regression	40.159	5	8.032	10.538	.000
Residual	122.715	161	.762		
Total	162.874	166			

Note: Dependent variable: Time child spends in front of screens on weekdays. Predictor variables: Attitude towards screen impact, way of using time while child is in front of screens, child's age, parent's age, and awareness of screen impact.

The results of the ANOVA analysis indicate that the regression model, which includes five predictor variables, significantly explains the variation in the time children spend in front of screens on weekdays. The total sum of squares for the regression model is 40.159, while the sum of squares for the residual model is 122.715. The F-value of the model is 10.538, and with a p-value less than 0.001 (p = 0.000), these results suggest that the predictors are significantly related to the time children spend in front of screens.

Further analysis of the coefficients shows that two predictors are statistically significant: parental attitudes towards the impact of screens on child development (p < 0.001) and the level of awareness of the impact of screens on child development (p = 0.011). Specifically, negative parental attitudes towards screens are associated with less time children spend in front of screens, while higher levels of awareness about the impact of screens are also related to shorter screen time. On the other hand, predictors including the child's age, parent's age, and the way parents use time while their child is in front of screens were not found to be statistically significant (p > 0.05).

These results suggest that parental attitudes and their awareness of the impact of screens play an important role in determining the amount of time children spend in front of screens, while other factors such as the parent's age, child's age, and the specific ways in which parents use time while children watch screens do not significantly contribute to explaining this variance.

The study showed that, on average, children spend 1.71 hours in front of screens on weekdays and 2.03 hours on weekends. This contrasts with a 2017 study that found children spent an average of more than two hours a day and three hours on weekends in front of screens. Based on these findings, we can conclude that parents' awareness of the importance of limiting screen time is increasing. On the other hand, it is important to consider that this study focused on parents of young and preschool-aged children, and recommendations suggest that children under the age of two should not be exposed to screens at all.

Furthermore, the study confirmed that parental attitudes and their awareness of the impact of screens play a significant role in determining the time children spend in front of screens. Considering the connection between media use and developmental disorders in children, particularly issues related to concentration and language development in young and preschool-aged children, it is crucial to limit screen time.

5 CONCLUSION

The results of the study highlight the significant role that parental attitudes and awareness play in regulating the amount of time children spend in front of screens, especially on weekends. Compared to a previous studies, these findings suggest a growing awareness among parents about the importance of limiting screen time. It is also noteworthy that this study focused on parents of young and preschool-aged children, and current recommendations advise that children under two years of age should not be exposed to screens at all. The research further confirmed that parental attitudes and the level of information about the impact of screen use on child development are crucial factors in determining screen time. Considering the established connection between excessive media use and developmental disorders, particularly in relation to concentration and language development, it is essential to limit screen time for young children. Overall, the study underscores the need for continued education and awareness-raising efforts to ensure healthier screen habits for young children, supporting their overall development and well-being.

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1.09 Objavljeni strokovni prispevek na konferenci
Published professional conference contribution

MORE THAN DANCE: THE MULTIFACETED OBJECTIVES OF THE BALLET CLASS

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ABSTRACT

This research addresses the need for a modern ballet education model that integrates traditional technique with contemporary pedagogical, scientific, and integrative practices. Historically, the ballet class has evolved from a courtly social practice into a highly disciplined art form; yet, traditional, teacher-centered methods often limit dancer autonomy and well-being. In the ballet community, the terms ballet class and ballet training are often used interchangeably, without clear differentiation. This study distinguishes between ballet class—the structured, codified study of technique—and ballet training—a broader integrative system that encompasses physical conditioning, psychological resilience, and artistic development. Recognizing this distinction is essential for advancing both pedagogy and dancer well-being. Using a historical, comparative, and empirical approach, this research included a pilot project in Vienna (2020–2022) to test the integration of somatic practices, self-evaluation, and peer feedback. The findings confirm that this model significantly enhances dancers' technical proficiency, artistic interpretation, and physical and psychological resilience. The study validates that the modern ballet class, viewed as a form of aesthetic hygiene, must transcend mere technical mastery to incorporate mental and emotional well-being, while ballet training provides the systemic foundation for long-term artistic and physical sustainability. The results challenge the authoritative teaching paradigm and provide a scientific basis for curriculum reform. While the pilot project's success is promising, a key limitation is its localized nature. The study concludes with recommendations for broader, longitudinal research to assess the long-term impact of this integrative pedagogical model on dancers' careers and lives.

Keywords: *Artistic Exploration, Ballet, Reflection, Self-expression, Toolbox.*

1 INTRODUCTION

The ballet class, a practice spanning nearly four centuries, is the foundational space where art, athleticism, and intellect converge to shape a dancer's identity. Since its origins in the Académie Royale de Danse (1661), it has developed into a structured yet adaptive pedagogical framework. Although traditionally codified, the ballet class has undergone continual artistic and educational transformations, solidifying its role in dance training and professional development. Historical scholarship has documented ballet's evolution from a courtly tradition to a professional discipline (Schneider, 2002; Sorell, 1995); however, a gap remains in connecting these historical methodologies with contemporary research on dancer well-being and cognitive learning.

This research establishes a crucial distinction between *ballet class*—the structured study of technique—and *ballet training*—a broader system of physical and psychological conditioning. While the two are often conflated in practice, differentiating them is essential for developing an integrative pedagogical model. Traditional ballet pedagogy has often been criticized for its rigid, teacher-centered model, which may restrict dancer autonomy and artistic exploration. While high-volume practice is indispensable for achieving expertise (Ericsson, Krampe, & Tesch-Römer, 1993), it does not in itself ensure dancer well-being or the development of broader artistic and cognitive capacities.

This study responds to the need for a contemporary model of ballet education that extends beyond technical training to incorporate physical conditioning, psychological resilience, and student-centered methodologies. Drawing on Parker Palmer's educational philosophy, it situates ballet pedagogy within a subject-centered framework (Palmer 1997). Placing the subject at the center of the learning process aligns with ballet's codified traditions and sequential technical development. This approach positions teachers and students in relation to the discipline itself, cultivating respect for its rigor while sustaining its artistic heritage. At the same time, the structured framework provides the foundation upon which creativity and expressive freedom can emerge.

The study further engages with the concept of *aesthetic hygiene* (Noja-Nebyla 2024), which encapsulates the universal function of the ballet class regardless of its purpose—whether for professional dancers, choreographers, teachers, educators, or enthusiasts. Ballet class is more than a site of technical refinement; it is a daily ritual of purification that aligns the body, refines movement, and elevates artistic expression. Through repetition, precision, and mindful execution, the class cleanses movement of inefficiencies, ensuring that every gesture embodies clarity, harmony, and intention. It is the space where dancers polish their skills, choreographers sharpen creative tools, and teachers transmit structured knowledge, all while preserving the integrity and purity of classical technique.

Accordingly, this research hypothesizes that a modern subject-centered approach to ballet education, which differentiates between class and training, will not only enhance technical and artistic ability but also strengthen physical and psychological resilience. Such an approach can prepare dancers more effectively for the diverse demands of the 21st-century dance world. To investigate this, the study employs a subject-centered framework for ballet instruction, analyzing its impact on the development of technical skills, artistic expression, and pedagogical effectiveness.

2 METHODS

This research employed a historical, comparative, and empirical approach to investigate the evolution and pedagogy of the ballet class. A historical and comparative analysis was undertaken to examine the pedagogical foundations of ballet education, tracing its evolution from codified tradition to contemporary practice. This review drew upon archival sources and systematically analyzed the core methodological frameworks of Vaganova, Cecchetti, Balanchine, and the Royal Academy of Dance (RAD).

The historical study was then complemented by a comparative analysis of these traditional training methods against contemporary, evidence-based practices informed by modern science and education. The analysis highlighted the intersection of ballet with somatic practices such as *Bartenieff Fundamentals* and *Body-Mind-Centering*, which emphasize internal awareness, neuromuscular repatterning, and embodied learning (Chen & O'Connell 2023). By examining how modern cognitive and constructivist learning theories challenge or complement the subject-structured model of classical

ballet, the study provided a multi-layered framework illustrating both the enduring value of ballet's codified traditions and the potential for a new, integrative pedagogy.

An innovative pedagogical framework, the *Noja-Nebyla Stage Education*, was tested through a pilot project conducted in Vienna between 2020 and 2022. A total of 24 dancers from eight countries took part in the project, which integrated somatic practices, cognitive learning, and subject-structured pedagogy. Data collection included structured self-evaluation and peer-evaluation methods such as reflection journals, goal-setting exercises, and partner feedback sessions. Further data were gathered through observations and interviews with dancers, educators, and choreographers to assess the impact of these pedagogical shifts on learning effectiveness.

3 RESULTS

The research established a distinction between *ballet class* (the structured study of technique) and *ballet training* (a broader system of physical and psychological conditioning), emphasizing the necessity to clearly differentiate them in both pedagogy and practice. While the class provides the codified structure for refining technical skills and artistic expression, training encompasses complementary elements such as conditioning, psychological preparation, and somatic awareness. Recognizing this distinction is essential for designing curricula that address not only technical mastery but also the integrative development and well-being of dancers.

The *Noja-Nebyla Stage Education* pilot project demonstrated that the integration of somatic awareness, cognitive learning strategies, and subject-centered pedagogy led to improvements in:

- Technical proficiency: Dancers showed greater control, coordination, and balance.
- Artistic interpretation: Participants developed stronger emotional and narrative skills.
- Physical and mental well-being: There was a reduced risk of burnout and overuse injuries (Chen & O'Connell 2023; IADMS 2024).
- Autonomy and critical thinking: The use of self-evaluation methods significantly increased dancers' autonomy and their ability to articulate their artistic intentions (Miller, 2022).

4 DISCUSSION

The findings of this study confirm and expand upon the work of Ericsson et al. (1993), who emphasized the importance of deliberate practice. While practice volume is crucial, the results demonstrate that pedagogical approach is equally vital. The observed increase in dancer autonomy through self-evaluation and peer feedback mirrors findings by Miller (2022), who argued that reflective practice fosters critical thinking. The positive impact on dancer well-being aligns with recommendations from the International Association for Dance Medicine & Science (IADMS 2024), which emphasize a comprehensive approach to mental and physical health in ballet training.

A further contribution of this research is the clear differentiation between *ballet class* and *ballet training*. *Ballet class* is identified as the structured and codified study of technique, while *ballet training* encompasses a broader integrative system that includes physical conditioning, psychological resilience, and artistic development. This distinction is indispensable, as the conflation of class and training has historically constrained pedagogical innovation. By acknowledging their interdependence within a unified framework while simultaneously maintaining their conceptual distinctiveness, a more rigorous and integrative pedagogical model can be articulated—one in which the *ballet class* preserves its function as *aesthetic hygiene* (Noja-Nebyla 2024), and *ballet training* furnishes the systemic foundation necessary for sustained artistic development and physical resilience.

These results provide concrete evidence that a subject-structured approach, enriched by somatic and cognitive methodologies, leads to superior outcomes in both technical proficiency and artistic interpretation. A primary limitation of this research is the short duration and localized nature of the pilot project. While the results are promising, a broader study with a larger participant pool is needed to generalize the findings.

5 RECOMMENDATIONS

1. **Curriculum Reform:** Dance academies should integrate subject-centered pedagogy, self-evaluation, and somatic practices into curricula (Petrova 2021). A clear structural distinction between *ballet class* (focused technical study) and *ballet training* (integrative system of conditioning and resilience) should be embedded into curricula to optimize both precision and adaptability.
2. **Teacher Training:** Pedagogy programs should equip ballet masters with cognitive learning theory and dance psychology tools, preparing them to differentiate their instruction between class and training environments.
3. **Future Research:** Longitudinal studies are needed to measure long-term effects of integrative training models—including cross-training and somatic practices—on injury reduction and artistic sustainability (Chen & O'Connell 2023). Special attention should be given to how the differentiation between class and training shapes career longevity and artistic development.

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1.08 Objavljeni znanstveni prispevek na konferenci
Published scientific conference contribution

REHABILITATION TOWARDS RECREATION: A HOLISTIC APPROACH TO HEALTH AND WELL-BEING

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ABSTRACT

Health and well-being are increasingly recognised as multifaceted constructs that extend beyond the mere absence of disease. Rehabilitation and recreation, though traditionally viewed as distinct fields, share an intrinsic connection in promoting physical, mental, and emotional recovery. By integrating these phenomena, a holistic approach to health emerges, emphasizing the interplay between restorative practices and leisure activities. This article explores the intersection of rehabilitation and recreation, highlighting their complementary roles in fostering resilience, enhancing quality of life, and achieving sustainable well-being. The problem of research: What are the overlapping - synergistic factors between rehabilitation and recreation processes aimed at restoring a person's functional activity? Is continuity of the person's health promotion(s) ensured when engaging in recreational activities after rehabilitation? Research methodology: Systematic literature analysis, also known as a systematic literature review, is a method for identifying, analysing and interpreting all the available evidence relevant to a particular research question. The process of a systematic literature review involves several key stages: Search, Assessment, Synthesis and Analysis (SALSA). The literature search was conducted in major scientific databases (ScienceDirect, Taylor & Francis Journals, Scopus, EBSCO Publishing, Springer Journals), with a priority on open access sources. The following keyword combinations were used in the search: rehabilitation AND recreation. Initially 327 articles were identified, but after screening, 15 publications were selected. The selection criteria were: (i) articles published between 2015 and 2024, (ii) published in peer-reviewed journals, (iii) studies exploring rehabilitation and recreation phenomenon. : To ensure a smooth transition from rehabilitation to independent recreational activities, a specialist is needed to not only help patients overcome potential motivational barriers, but also to enable continuity of health promotion. To ensure a smooth transition from rehabilitation to independent recreational activities, a specialist is needed to not only help patients overcome potential motivational barriers, but also to enable continuity of health promotion.

***Key words**: Rehabilitation, Recreation, Health, Well-being.*

1 INTRODUCTION

Dynamic public health challenges highlight the need for a holistic approach to personal health. The synthesis of rehabilitation and recreation, as a synergistic overlapping process, provides the basis for the development of a comprehensive health promotion system that goes beyond traditional rehabilitation and provides the basis for long-term quality assurance of personal health.

According to the World Health Organisation (2019, 2023), rehabilitation is the coordinated and integrated use of medical, social, educational and vocational activities to maximise the functional activity of the person undergoing rehabilitation. Functional activity is an integral multidimensional component, defined as actions that a person performs in an independent and motivated manner in order to achieve meaningful personal well-being (Samsoniene et al. 2022). A person's functional activity consists of: biosocial functions, which include daily self-management and the management of daily affairs; psychomotor functions, such as physical activity; psychoemotional functions, such as mental-cognitive activity, emotional and spiritual resilience; and psychosocial functions, such as complex thinking functions and language, communication and collaboration, creating works of art, etc. (Samsonienė 2017). Recent research shows that personalised rehabilitation planning and its continuous adaptation to the patient's changing needs and abilities significantly improves the functional performance of the individual (Wade 2020; Dekker et al. 2020), and not only maximises the effectiveness of rehabilitation, but also increases the patient's engagement and motivation to take an active part in the health recovery process (Dekker et al. 2020). It is important to emphasise that rehabilitation is a finite process - once a person reaches optimal functional activity, it is over. But then how does the health system ensure that a person's health is maintained or enhanced after rehabilitation?

The concept of *recreation* is derived from the Latin word for "restoration". English terminology interprets recreation in two ways: (1) recreation as recuperation and (2) recreation as rest (Cambridge Dictionary 2025). However, *recreation* is not just leisure or recreation, nor is it just recuperation when a person voluntarily engages in recreational activities of his or her own free will and in the expectation of pleasure. It is much more about the experience of a person's state of physical and/or psycho-emotional well-being, involving processes of wellness, self-realisation, development, socialisation (Hurd et al. 2021; Belhassen 2021; Zarotis and Tokarski 2020; Schmalz and Pury 2018; Stebbins 2018; Gómez et al., 2016; McLean and Hurd Kraus 2015).

A review of the concepts of rehabilitation and recreation raises the question of the importance of the continuity of the activities implemented, which are based on a holistic approach to human health, from structured therapeutic rehabilitation practices to informal recreational activities. Research is being carried out to explore rehabilitation processes (Wade 2020; Krug and Cieza 2019; WHO 2019; 2023) and to systematise rehabilitation methods, techniques and tools (Bičiunaitė and Samsonienė 2023; Dekker et al. 2020). In parallel, the multidimensional aspects of recreation are being explored, with recreation being analysed as an activity, as a behaviour, as the experiences and feelings of a person or group, as a socio-cultural phenomenon (Hurd et. al., 2021; McLean and Hurd Kraus 2015). However, there is a lack of studies that analyse the synergism between rehabilitation and recreation.

Study **questions:**

What are the overlapping - synergistic factors of rehabilitation and recreation processes aimed at restoring functional activity of a person?

Is continuity of the person's recovery ensured when engaging in recreational activities after rehabilitation?

The **article aim** is to highlight the need for a systemic focus on the synergies between rehabilitation and recreation in order to achieve continuity of recovery.

To achieve this aim, the objectives are:

- to analyse the overlap between rehabilitation and recreation;
- to highlight the factors involved in rehabilitation and recreation processes in restoring and enhancing the functional performance of the individual;
- to present a hypothetical model of synergy between rehabilitation and recreation for the continuity of the person's recovery.

2 METHODOLOGY

Systematic literature analysis, also known as a systematic literature review, is a method for identifying, analysing and interpreting all the available evidence relevant to a particular research question. The process of a systematic literature review involves several key stages: Search, Assessment, Synthesis and Analysis (SALSA) (Booth et al., 2021).

The literature **search** was conducted in major scientific databases (ScienceDirect, Taylor & Francis Journals, Scopus, EBSCO Publishing, Springer Journals), with a priority on open access sources. The following keyword combinations were used in the search: rehabilitation AND recreation. Initially 327 articles were identified, but after screening, 15 publications were selected. The selection criteria were: (i) articles published between 2015 and 2024, (ii) published in peer-reviewed journals, (iii) studies exploring rehabilitation and recreation phenomenon.

Assessment. The abstracts of the 327 retrieved articles were read, and articles that only talk about health improvement and have no relevance to the field of research are rejected. At the end of this phase, each author assesses the quality and relevance of the selected articles for analysis.

Synthesis. A google docs document is created and the data is extracted. The table consists of the following columns: title of the article, type of study, study participants, study characteristics, study results, conclusions/recommendations and the database where the article was found.

Analysis. The data are analysed in the context of the synthesis of rehabilitation and recreation, seeking an answer to the following problematic questions: what are the overlapping - synergistic factors between rehabilitation and recreation processes aimed at restoring a person's functional activity? Is continuity of the person's health promotion(s) ensured when engaging in recreational activities after rehabilitation?

3 RESULTS

3.1 Comparative analysis of rehabilitation and recreation

In today's society, rehabilitation is becoming an integral part of the healthcare system, not only to cure illnesses, but also to ensure a comprehensive improvement in the quality of life. The increasing prevalence of chronic diseases, injuries and an ageing population have led to a growing need for rehabilitation. This process, which focuses on improving the physical, mental, emotional and social well-being of the individual.

In the late 19th and early 20th centuries, rehabilitation was perceived narrowly, mainly as physical rehabilitation after injuries or illnesses, especially among war veterans. After the First World War, physical rehabilitation for wounded soldiers began to be systematically applied. This period is considered to be the beginning of formal rehabilitation in medicine. After the Second World War, the concept of rehabilitation became more focused on medical treatment and restoration of function. In this phase, the focus was on physical health and physiological disorders, but the social and emotional aspects of the patient's health were often neglected.

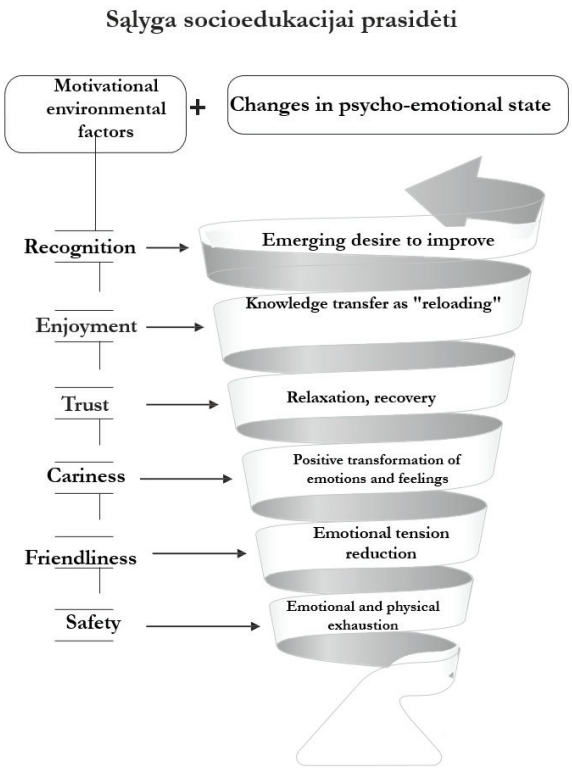
One of the most significant changes in the concept of rehabilitation is the active role of the patient and the personalisation of the process itself, with sessions increasingly tailored to the needs of the individual. The relationship between patient and professional is based on the principle of partnership. Compared to the previous medical model, modern rehabilitation is understood in a broader sense and encompasses a wide range of measures, such as medical, psychosocial, educational, etc.

Recreation has been explored and analysed in the scientific literature from different perspectives: reviewing its historical development (McLean and Hurd 2015), highlighting theoretical aspects (Belhassen 2021; Zarotis and Tokarski 2020; Schmalz and Pury 2018; Stebbins 2018; Glover 2015) and presenting a contemporary understanding based on the results of research on practical activities (Hurd, et. al. 2021; Nagata et. al. 2020).

The concept of recreation has also evolved and developed from the earlier emphasis on play as preparation for adult life, to the development of the skills needed to succeed in society; from leisure activities to health promotion. In the Stone Age, recreation was carried out through games, which had a symbolic meaning, helping young people to prepare for adult life: boys learning to hunt, girls learning to do housework. The Renaissance saw the rise of ideas of freedom and the development of science, which

increasingly changed people's lives and perceptions of life. Singing, dancing and drawing have become part of learning. In the industrial age, technical and scientific progress increased labour productivity and living standards, making it possible to shorten working hours, extend leisure time and develop a range of recreational activities. Changing attitudes towards leisure have led to a variety of activities and a change in value interests. Changes in public consciousness have led to changes in the perception of the meaning of recreation and in the variety of recreational content. Whereas in the past recreation was seen only as a time to take a break from work or as a privilege of the rich, in modern times recreation has become a quality-of-life aspiration - an integral part of everyone's life (McLean and Hurd Kraus 2015).

Figure 1. Changes in psychoemotional state during participation in recreational activities



(Source: Lisauskienė 2023)

When analysing recreation from a theoretical perspective, researchers emphasize the importance of a psychologically relaxing environment, autonomy in activity selection, intrinsic motivation driven by enjoyment, physical and emotional release, and inner transformation. Stebbins (2017, 2018) found that enthusiasm for an activity is the biggest driver. If a person engages in an activity in a relaxed and fully enjoying way, investing their full attention - there is a high likelihood that a positive change in psycho-emotional state will occur (see Figure 1), and environmental support will only reinforce this. Lisauskienė's research (2023) reveals that safety is important when engaging in activities, as only a safe environment can help you to physically "recharge". A welcoming, friendly and supportive atmosphere helps to 'heal', which leads to a reduction in internal tension and emotional discharge and relaxation. Caring from others makes you feel not alone and engaged, and this brings about positive feelings such as happiness and joy, while sadness, anger or other depressing emotions become more perceived and more appropriately expressed. The trust of others gives confidence, which on the one hand helps to recover spiritually, and on the other to calm down and relax. The feeling of a pleasant environment allows a person to be more open, active and willing to receive information, which gives strength and energy. Recognition, for example by giving the opportunity to contribute to the organisation of an activity, fosters the awareness and responsibility that lead to personal development.

The results of the comparative analysis of rehabilitation and recreation show that the concepts have evolved in line with the needs of society and scientific progress. Rehabilitation has evolved from a narrow medical approach focused on the patient's recovery and restoration of bodily functions to a holistic model aiming at the individual's optimum functional activity and integration into society. Recreation, in turn, has evolved from children's games to prepare for adult life and has transformed into recreational activities that optimise education, social inclusion, health and quality of life. These aspirations are acute in both areas in question.

Comparing research on rehabilitation and recreation, different priorities emerge. Rehabilitation focuses more on the application of methods and tools and the evaluation of their effectiveness. Recreation research, on the other hand, focuses more on the conceptualisation of this socio-cultural phenomenon, its essence, meaning and place in society. The research reflects the different aims of the disciplines: rehabilitation aims to directly improve the functional status of the individual through interventions, while recreation aims to enhance the well-being and socialisation of the individual through activities that provide positive experiences.

These findings from the literature analysis suggest complementarities between the two areas and, hypothetically, an under-realised potential for synergies between them. It is particularly important to emphasise that the synergy of these processes would create the preconditions for the continuity of a person's functional activity, from the initial stages of rehabilitation to independent recreational activity. Such a sequential transition from structured rehabilitation activities to targeted recreational activities allows not only for the maintenance of the rehabilitation results achieved, but also for the formation of long-term health-enhancing behavioural patterns.

3.2 Analysis of overlap between rehabilitation and recreation activities

The rehabilitation process as an episode (in the case of injury or illness) is intertwined with the recreation process (which lasts a lifetime). The findings of the literature analysis highlight the overlapping of the activities of both processes. During rehabilitation, the person not only seeks to restore health or function, but often engages in activities that are also characteristic of recreation, such as nature walks, swimming, board games or creative activities. At the same time, recreational activities often have a therapeutic and rehabilitative effect: regular exposure to nature reduces stress, physical activity improves general well-being, and artistic activities help to relieve tension, relax and express emotions. This approach should avoid a strict distinction between 'treatment' and 'enjoyment': when rehabilitation becomes more enjoyable and more like recreation, it increases patients' motivation and engagement in the process. On the other hand, when the end of the rehabilitation process naturally 'returns' to recreation, the person continues consciously on his/her path to recovery.

Both rehabilitation and recreation aim to improve a person's physical, psychological and social well-being, so planning for both should be based on common goals. Effective organisation of activities requires a clear identification of objectives, which helps to ensure personalised and targeted impact. Before planning any intervention, it is necessary to answer some basic questions that are relevant both for the patient in the rehabilitation process and for the client in the recreational activity:

1. What is the outcome? Clearly defining the objectives allows you to set the direction of action and expectations.
2. How will success be measured? Objective and subjective evaluation criteria (e.g. improvement in functional abilities, subjective change in well-being) need to be defined in advance.
3. What signs will indicate progress? It is important to determine which specific indicators (visual, auditory or action) will indicate progress.
4. Which conditions are favourable and which are limiting? Individual needs, aspects of physical and psychological condition, and environmental factors can have a significant impact on the process.
5. What measures are necessary to achieve the goal? The effectiveness of both rehabilitation and recreation depends on the availability of appropriate methods, tools and resources.
6. What functional limitations exist? It is important to take into account individual mobility, cognitive or emotional factors that may affect participation.
7. What will happen when the goal is achieved and is it worth the effort? Assessing the long-term impact helps to ensure a sustainable outcome and motivation for future activities.

These issues form the basis for effective planning of both rehabilitation and recreation processes, ensuring that they are purposeful and motivate participants. It is therefore necessary to deepen the synergies between these areas in order to optimise interventions, promote personal involvement and improve long-term outcomes.

Rehabilitation is participation in personalised rehabilitation programmes, prescribed or tailored to the patient's health needs, under the guidance of a rehabilitation specialist. Recreation is the fulfilment of a person's leisure needs, including participation in formal activities (e.g. membership of a sports club, dance club or folklore ensemble) or in informal sporting, creative or artistic activities of the person's own free, motivated choice.

In both rehabilitation and recreation, physical, mental-cognitive, emotional and social activities can be distinguished (see Table 1). However, it is important to emphasise that these areas overlap through physical / sporting activities and creative / arts activities. These are like connecting links that promote the functioning of biosocial and psychosocial human functions.

Figure 2: Synergy between rehabilitation and recreation

HUMAN FUNCTIONAL ACTIVITY		
BIOSOCIAL FUNCTIONS AND PSYCHOSOCIAL FUNCTIONS		
REHABILITATION - Participating in personalised rehabilitation programmes, as appropriate to the patient's health needs and as directed by the rehabilitation physician	Creative / Arts Activities & Physical / Sporting Activities	**RECREATION** - Participation in formalised (e.g. sports club or dance club or folklore ensemble) activities or informal sports, art or other creative activities, as appropriate to the individual's leisure needs and according to personal, free and motivated choice.
Physical activities: includes active physical activity - exercises or games in indoor or outdoor spaces (gym, swimming pool, park, etc.) designed to improve body movement, sensation, strength and balance. The activities are planned and carried out by a physiotherapist, an occupational therapist, a physiotherapist and a dance-movement therapist.		**Physical activities**: includes active physical activity - exercise/ exercise, walking, swimming, running, skiing, other sports or team games in indoor or outdoor spaces (gym, swimming pool, park, forest, etc.) for general physical well-being and health. The activities are planned and carried out independently by the person or by joining activities organised by other persons or professionals (sports coach, physiotherapist, dance teacher, dance-movement therapist)
Mental-cognitive activities: include sensomotor and cognitive activities such as reading, thinking exercises (crosswords, charades, etc.), board and computer games, or role-playing drama games designed to restore or improve thinking, learning, memory, planning and decision-making skills. The activities are planned and carried out by a neurologist, a speech and language therapist, a psychologist, an occupational therapist and art therapists (art, drama, music, dance-movement).		**Mental-cognitive activities**: includes a wide range of cognitive activities such as excursions, attending performances, exhibitions, concerts, art groups, artistic activities, mind games, chess or computer games, other board games, reading, creative writing, etc., aimed at building mental capacity. The activities are planned and carried out independently by the person or by joining activities organised by other persons or professionals (cultural event organisers, artists or art therapists).
Emotional activities: includes emotion management, behaviour management, learning about self-expression and self-esteem, either through a personal growth group or psychotherapy or art therapy, or individual counselling. Activities are planned and carried out by a psychologist/psychotherapist, art therapists (art, drama, music, dance-movement).		**Emotional activities**: includes activities that generate positive emotions - any active creative self-expression through handicrafts, art, music, theatre, dance, etc.; attending performances, exhibitions, concerts and other cultural events, as well as meditation, yoga, personal growth or art therapy classes to improve self-expression, spiritual satisfaction and self-fulfilment. The activities are planned and carried out independently by the person or by joining activities organised by other persons or professionals (psychologists, event leaders, artists or art therapists).
Social Functioning activities: includes the ability to communicate successfully, to interact and cooperate, to choose social roles, and to take responsibility. Activities are planned and carried out by a psychologist/psychotherapist, a physiotherapist, art therapists (art, drama, music, dance-movement).		**Social activities**: include a wide range of sporting, creative and artistic activities in pairs (dance, table tennis, etc.), participation in a sports team (volleyball, basketball, relay races), participation in a music ensemble, theatre company, art therapy group, etc., singing, hiking activities, etc. Activities are planned and carried out independently by the person, or by joining activities organised by other people or professionals (tourism, sports professionals, artists or art therapists).
Synergy between Rehabilitation and Recreation		

(Source: Aleksienė, Lisauskienė, Samsonienė 2024)

In both areas, a wide range of physical and/or sporting activities, as well as creative and/or arts activities, play an important role in the restoration, maintenance and enhancement of human health. Physical activities can range from more intense physical activity such as exercise, brisk walking, running, Nordic walking, cycling, swimming, skiing, etc., to more relaxing forms of movement. Dance-movement therapy, yoga, Pilates or even simple walks in nature not only strengthen the physical body, but also improve psychological well-being, reduce symptoms of depression and anxiety. Physical activity in all its forms strengthens cognitive function, while sporting activities such as basketball, volleyball, tennis or other team games encourage social activity and cooperation.

Creative and playful activities - board or computer games, puzzles, brain teasers or other brain-training games, as well as handicrafts - not only develop attention, memory, executive functions, creativity, but also give pleasure and fill leisure time with meaning. Arts activities include various forms of activity, both as an active participant in the creation or performance of art, and as an experiencing observer. Engaging in arts activities has an impact on the human condition and influences health processes in many ways. This is professionally realised in arts therapy (visual art therapy, music therapy, drama therapy, dance-movement therapy) activities.

Physical activities and/or sporting activities and creative activities and/or arts activities overlap and complement each other in rehabilitation and recreation. For example, dance can be considered as both an artistic and a sporting activity, while yoga encompasses both the physical and the psycho-emotional and spiritual aspects. Creative practices can be integrated into physical activity programmes, such as the use of music in workouts or art therapy after exercise for relaxation. Thus, it is as if the 'rotation' of these connecting activities implies a repetitive and never-ending process.

Both rehabilitation and recreation activities involve a large part of the same health promotion practices, but their application differs. In rehabilitation, activities are more formalised - they are tailored to the special needs of the patient and integrated into the treatment process. In contrast, recreational activities are voluntary, chosen on an individual's own initiative to improve well-being or maintain health.

It should be noted that the impact of the environment is important, especially the safety aspect, where people feel accepted, respected and free to act and interact. The creation of such an environment fosters community, ensures that biological and emotional needs are met, and provides opportunities to build the relationships that are important for a person's health and well-being.

These overlapping activities are thus like links in the rehabilitation and recreation processes, as all these activities, within their "framework", contribute to the holistic improvement and restoration of human health, and ensure a continuity of activities that go beyond the rehabilitation or recreation phases, but continue throughout a person's life.

4 DISCUSSION

A person's health is one of life's essential elements. Any physical or psychological impairment limits a person's performance and quality of life. The results of our research and that of other researchers suggest that a synergy between rehabilitation and recreation is essential to achieve comprehensive personal health and well-being.

A study by Sonesson (2017) shows that patients' motivation to continue after rehabilitation depends on the level of activity achieved (patients who have achieved their previous level of physical activity are more motivated compared to those who have not). Lisauskienė, Aleksienė's research (2023) revealed the process of psycho-emotional state change during participation in non-formal education through recreational activities. The outcome of recreation has a direct link to the rehabilitation process - when a patient experiences a positive change in physical, cognitive or emotional health, he/she wants to continue the activity. A direct link to intrinsic motivation is a necessary aspect of engagement and participation in recreational activities.

The overlap between rehabilitation and recreational activities, as revealed in the literature review, highlights the natural transition between the two processes When recreational activities are used in the rehabilitation process, the patient acquires skills and experiences that can be directly transferred to their daily life after rehabilitation, thus ensuring continuity of activities and enhancing the

results achieved. For example, group physical activities can develop into regular participation in community sports activities.

The complementarity between the two fields of rehabilitation and recreation is not only a theoretical but also a practical phenomenon, the synergy of which could ensure the continuity between the individual and the health care. However, the effective implementation of this synergy requires educational information and a clear structure to coordinate the transition process from rehabilitation to independent recreational activity. Therefore, to ensure a smooth transition from rehabilitation to independent recreational activity, a specialist is needed to not only help patients overcome potential motivational barriers but also to mediate the continuity of health promotion. Such a professional could act as an intermediate link between medical staff, physical rehabilitation professionals and recreational activity organisers, ensuring the patient's long-term participation in active life.

Another important aspect is that the various creative activities, and especially art therapy, are a kind of link between rehabilitation and recreation. Art therapy is not limited to a rehabilitative or recreational context, but creates an interdisciplinary space in which physical, mental-cognitive, emotional and social health is enhanced in a holistic way, with lasting benefits for a person's quality of life. This is also noted by Daunytė et al. (2023) in their article, which highlights the health benefits of arts activities. Taking these aspects into account, we assume that art therapy can be considered not only as an auxiliary activity, but also as an essential link between medical treatment and the maintenance of self- well-being, enhancing both therapeutic and preventive health promotion processes.

5 CONCLUSION

The synergy between rehabilitation and recreation through overlapping activities ensures continuity and underpins the need for a holistic approach to personal health. Overlapping activities - physical and/or sporting and creative and/or arts - reflect the repetitiveness and incompleteness of the process. It is like a circle whose smooth functioning must be continuously maintained.

The health system does not sufficiently ensure synergies between rehabilitation and recreation. After primary rehabilitation, patients face interruptions in activities due to insufficient integration into the overall health care system. In order to improve continuity, interdisciplinary cooperation is needed to ensure a coherent health promotion process from prescribed rehabilitation treatment to freely chosen long-term recreation.

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1.08 Objavljeni znanstveni prispevek na konferenci
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AI AND HUMAN RESILIENCE[1]

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ABSTRACT

This paper frames artificial intelligence (AI)-induced poverty as a critical form of adversity, examining its root causes, and developing resilient strategies to mitigate its impact and foster recovery. By emphasizing resilience as a shared responsibility, the study advances a more inclusive approach for navigating poverty posed by AI. Employing a qualitative research design grounded in an extensive literature review and decades of personal experience in AI technology, this paper investigates two core questions: 1) How does AI exacerbate poverty in developing countries, particularly in contexts characterized by weak governance and limited institutional capacity? 2) What strategies must be adopted to strengthen human resilience to AI-induced adversity in the domain of poverty? The findings highlight the mechanisms through which AI amplifies existing structural disadvantages and propose multi-level resilience-building strategies involving individuals, organizations, national systems, regional alliances, and international cooperation. Ultimately, the paper aims to guide policymakers, technologists, communities, and other stakeholders in steering AI innovation toward inclusive growth and shared prosperity.

Keywords: *Artificial Intelligence (AI), Poverty, Resilience, Inclusive Growth, Developing Countries, Governance, Institutional Capacity, Post-colonial theory, Decolonial theory.*

1 This article is dedicated to my late mother, whose life was a profound testament to human resilience. The author extends heartfelt gratitude to Dr. Sam Lam, Dr. Shirley Roels, Dr. Rodney Jones, Dr. Cally Guerin, Alice Lam, Lewis Lam, Simon Lam, Carman Leung, Cordelia Ho, Avital Agafonova, Joshua Polanski, and anonymous reviewers whose invaluable support made this chapter possible.

1 INTRODUCTION

The question of whether artificial intelligence (AI) can enhance the resilience of individuals, communities, and infrastructure is increasingly pertinent in contemporary discourse. Resilience can be understood both as a process and an outcome (Fletcher & Sarkar 2013; Kolar 2011). Van Breda (2018) defines resilience as "the multilevel process that systems engage in to obtain better-than-expected outcomes in the face or wake of adversity." This definition highlights that resilience operates across multiple levels of the person-in-environment and is active both during adversity and throughout recovery. Resilience is not an individual burden but a shared responsibility among individuals, families, and formal social systems (Kolar 2011). However, the rise of AI may not deliver its promises for driving economic development and increasing human resilience. Numerous studies have shown that developing countries with weak governance experience rising poverty with the increased deployment of AI (Alonso et al. 2020; Cerutti et al. 2025; Lam 2024a; Saba 2025). Miserably, AI will induce more adversity in the domain of poverty. Many developing countries are advised to build essential institutional capacity to increase their resilience and reduce their overdependence on dominant global powers as they enthusiastically invest in AI applications for economic prosperity (AIFOD Forum 2025). Stakeholders must develop deeper understandings of how AI functions within their local contexts, especially where it intensifies income disparities, and commit to fostering resilience at individual, organizational, national, regional, and international levels. This will help more people adapt and thrive, while also ensuring that the benefits of AI-driven productivity and innovation are equitably distributed.

This study is guided by two central research questions that address the intersection of artificial intelligence (AI), poverty, and resilience:

1. How does AI exacerbate poverty in developing countries, particularly in contexts characterized by weak governance and limited institutional capacity?
2. What strategies must be adopted to strengthen human resilience to AI-induced adversity in the domain of poverty?

The first question seeks to understand how AI technologies may deepen existing socioeconomic inequalities, marginalize vulnerable populations, and reinforce structural dependencies within the global economic system. The task of the second question is to identify multi-level interventions—spanning individual, organizational, national, regional, and international policy domains—that can mitigate the adverse effects of AI and promote inclusive growth and shared prosperity.

This article is structured into four sections. The first section is the methodology. The second section is a literature review of resilience, poverty, AI, the economic theory of poverty, data colonialism, and data capitalism. The third section collects findings about how AI exacerbates poverty and strategies to strengthen human resilience to AI-induced adversity in the domain of poverty. The fourth section is the discussion. The fifth section is the conclusion and further research.

2 METHODOLOGY

In this article, I adopt a qualitative approach informed by an extensive literature review and personal reflections collected over three decades of using AI in education and health care across the United States, Europe, and Asia. My prior empirical research—spanning from studies on corporate social responsibility of foreign companies in China to diversity, equity, and inclusion practices in universities and hospitals in the U.S.—provides a social-political-economic foundation for analyzing AI technology and recommending strategies to promote shared prosperity (Lam, 2011, 2024b, 2024c; Eshelman et al., 2012). As poverty is chosen as the main domain of adversity, I use economic theories of poverty (Blank, 2003; Jung & Smith, 2007) and data colonialism (Couldry & Mejias, 2019) to understand how AI creates more structural inequalities and worsens labor income and living environment. I also adopt strategies from post-colonial theory (Mohamed et al., 2020) to deal with AI-induced adversity and improve governance capacity for nations with weak governance.

3 LITERATURE REVIEW

This section reviews the relevant literature on the definitions and conceptualizations of resilience, poverty, artificial intelligence (AI), the AI–governance–poverty nexus, and post-colonial perspectives on resilient strategies. Resilience is framed as a shared responsibility across individuals, families, and social systems, while poverty is understood as a condition of deprived well-being. The literature suggests that AI-induced adversity in the domain of poverty is likely to be exacerbated in nations with weak governance structures. Drawing from post-colonial theory, the section advocates for participatory governance models that incorporate knowledge systems from historically marginalized communities as a foundation for developing context-sensitive and inclusive resilience strategies.

3.1 Defining resilience

There are various definitions of resilience. Resilience has been used to describe positive development under stress. However, the concept of resilience is highly subjective and incorporates many assumptions of social conditions and personal responsibility to uncontrollable or controllable events. What constitutes positive adaptations is rather subjective (Kolar, 2011). The outcome-based approach of resilience is characterized by particular patterns of functional behavior while the process-approach of resilience is characterized by a dynamic process of adaptation to a risk setting. The process-based understanding of resilience "facilitates the evaluation of resilience as a shared responsibility between individuals, their families, and the formal social system rather than an individual burden" (Kolar, 2011). Resilience should be regarded as an outcome and a process that addresses many contextual-specific factors (Fletcher & Sarkar, 2013; Van Breda, 2018, 2001).

3.2 Defining poverty

Poverty is a dynamic and multifaceted phenomenon that interplays with historical structural barriers, individual agency, and technological advancements. It can be quantified in terms of monetary factors, such as income and expenditure, or non-monetary factors such as deficiencies in opportunities, education, health, and other factors. Theories of poverty include the theories of individual deficiencies, cultural beliefs, economic, political and social distortions, geographical disparities, and cumulative and cyclical dependencies (Addae-Korankye, 2019). The treatment of poverty can be affected by its definitions in a particular socioeconomic environment and the theory chosen (Davis & Sanchez-Martinez, 2014). In this chapter, I use the World Bank's definition of poverty quoted by Davis and Sanchez-Martinez (2014) as it is more adaptable to various country conditions and includes the multidimensional of poverty that considers "dignity" and the importance of individual and political freedom. Poverty is defined as

> pronounced deprivation in well-being, comprising many dimensions. It includes low incomes and the inability to acquire the basic goods and services necessary for survival with dignity. Poverty also low levels of health and education, poor access to clean water and sanitation, inadequate physical security, lack of (political) voice, and insufficient opportunity to better one's life.

The author also adopts economic theories of poverty by Blank (2003) and Jung and Smith (2007). They both urge economists and policymakers to understand the following factors causing poverty: economic underdevelopment, lack of human capital development, dysfunctional market/contradictions in capitalism, structural social and political causes, characteristics of the poor, and the incentive effect of welfare programs/welfare dependence or poverty traps. In this book chapter, I focus on the first four perspectives causing poverty: underdeveloped economies, lack of skills and education, capitalism or market dysfunction, and social and political forces.

3.3 AI-governance-poverty nexus

Artificial Intelligence (AI) encompasses technologies that enable machines to sense, interpret, act, and learn to imitate human cognitive abilities (Manning, 2020). This technology has been widely adopted in our daily lives and anticipated as a promising tool to ameliorate existing economic poverty (Mhlanga, 2021; Raghavendra et al., 2023). However, without good AI governance and regulation, AI will exacerbate historical income inequality and poverty (Arnold, 2024; Cazzaniga et al., 2024; European Union, 2024; Gratton, 2024; IBM, 2023; Maslej et al., 2024; UNESCO, 2023; WHO, 2023).

The intersection of poor governance and poverty poses significant AI risks. As highlighted by Saba (2025), AI can exacerbate poverty in the short run when governance frameworks are weak, particularly through labor market disruptions and inequitable resource allocation. His empirical analysis of BRIC-plus countries between 2012 and 2023 reveals that while AI adoption can increase poverty, robust governance mechanisms mitigate these effects by enhancing resource distribution and managing systemic risks. Nations with strong economic governance, a definition that entails public financial management and regulatory institutions, are better positioned to leverage AI for poverty alleviation as they can effectively redistribute the AI-driven growth to vulnerable people. In contrast, the presence of weak institutions, political instability, or ineffective public sector management is correlated with rising poverty alongside increased AI deployment. Thus, countries with weak governance erode the development of human capital and worsen poverty. Saba said, "*Governments must invest not just in AI capacity, but in the rule of law, anti-corruption enforcement, and regulatory competence*." In this research about AI-governance-poverty research in developing countries, Saba (2025) concluded, "*AI increases poverty in the short-run, while governance reduces poverty by improving resource allocation and mitigating AI's impacts…In the long-run, AI modestly worsens poverty, while governance alleviates poverty by promoting growth and redistributing AI-driven gains*."

3.4 Post-colonial theory and resilient strategies

Post-colonial theory offers a critical lens through which to interrogate the structural and epistemic dimensions of resilience and poverty. Couldry and Mejias's (2019 idea of data colonialism and data capitalism elaborates ongoing data tracking offers unprecedented new opportunities for social discrimination and poverty. People affected by the most harmful forms of data surveillance and extraction are invisible to those in control of the technological power and their living conditions will worsen (Crawford 2021). The continuous appropriation of people's data as corporate resources is treated as normal, without any conscious about harm to human development. The potential harms of AI, including the exacerbation of poverty among people, are obscured when contemporary computing methods are portrayed as value-neutral. AI is constrained by its epistemological boundaries, serving the interests and values of powerful groups of people at the expense of many lives. The required massive material conditions, unknown mass environmental resources, and cheap labor to support the development of AI often go unrecognized (Crawford 2021). As Mohamed et al. (2020) argue, AI systems replicate colonial power structures; they also advocate for a decolonial AI framework that privileges participatory governance and draws knowledge from historically marginalized communities. Extending this critique, Mesa-Vélez (2025) proposes a feminist-decolonial model of governance—that resists colonial hierarchies of knowledge and extractive data practices by foregrounding relational ethics. A more just and inclusive digital environment must be cultivated to deal with AI-induced adversities and recover from these adversities.

In summary, participatory governance emerges as a foundational principle for building resilient strategies that are contextually grounded and socially inclusive. Another resilient strategy involves critically examining how AI is developed and deployed to serve the interests of dominant and often neo-colonial power structures. This approach rejects the notion of AI as a value-neutral technology and instead exposes its embedded biases, colonial logics, and potential to perpetuate systemic inequities. By foregrounding the voices and knowledge of historically marginalized communities, post-colonial resilience frameworks advocate for bottom-up, culturally responsive solutions that resist technological determinism and promote justice-oriented innovations.

4 FINDINGS

The following findings answer the two research questions as follows:

4.1 How does AI exacerbate poverty in developing countries, particularly in contexts characterized by weak governance and limited institutional capacity?

Countries plagued by weak governance are particularly vulnerable to the hazards of unchecked AI investment. Although they may continue to attract foreign AI technologies and capital inflows, they lack corresponding advancements in regulatory oversight or institutional capacity to monitor

or regulate foreign investors (AIFOD Forum, 2025). Sometimes, they even rely heavily on external dominant technology firms not only for AI deployment but also for their system oversight (World Economic Forum, 2025a, 2025b). Consequently, these nations are relegated to be passive consumers of AI technologies and become strategic arbitrage targets for dominant multinational investors operating within a weak global AI governance system (Transparency International, 2025; OECD, 2024a). Such asymmetrical power between developing countries and dominant multinational investors exacerbates corruption risks because AI-automated decision-making mechanisms can easily diffuse accountability and opaque algorithms can conceal discriminatory or fraudulent practices. Furthermore, the lack of algorithmic transparency and limited auditing capabilities critically weakens the ability of these countries to effectively monitor AI systems (OECD, 2024a; Köbis et al., 2022).

As Srivastava (2023) observes, public institutions often lack the technical and ethical literacy required to interrogate the design and data pipelines of outsourced digital infrastructures. Consequently, these systems generate outputs that reinforce punitive measures against marginalized groups, entrenching cycles of disadvantage and undermining the distributive capacities of public services. Resou-constrained nations frequently neglect investments in indigenous human capital and the development of transparent, accountable algorithmic systems. This underinvestment stems not only from financial limitations but also from a lack of epistemic agency within global technology ecosystems. These governments seldom undertake critical evaluations of algorithmic constraints or engage in the culturally responsive design of AI systems tailored to local socio-political contexts. Consequently, they become increasingly dependent on opaque, externally produced technologies whose embedded biases remain inscrutable. This dependency further entangles these societies in structural poverty as algorithmic governance reinforces exclusionary practices and undermines locally grounded knowledge frameworks. Thus, adopting AI without institutional capacity development risks entrenching economic underdevelopment, eroding human capital, deepening market dysfunction, and accelerating data colonization.

4.1.1 Entrenching economic underdevelopment

AI also has great potential for massive disruptions such as increased unemployment, out-of-control automation processes, and more. AI will exacerbate inequality and poverty around the globe (Aghion et al., 2021; Cazzaniga et al., 2024; Korinek et al., 2021). Inequalities and poverty created and facilitated by AI within developing countries will be greater than those in developed countries. Wealthier companies and the wealthy countries where these countries are based will benefit from the inequality in these less wealthy countries (Klinova, 2024). Developing countries often lack the institutional capacities to counteract the harmful side effects or fully harness the benefits of AI (Cazzaniga et al., 2024). The gain of capital is much higher than the gain of labor wages given by AI as an intensive capital investment (Acemoglu, 2023; Acemoglu & Johnson, 2023, 2024; Acemoglu & Restrepo, 2022). Most of the benefits of growth will favor those at the top, resulting in wider income inequality in most countries. Many AI labor-saving devices, developed by a few AI "superstar companies," will result in lower actual GDPs of emerging and low-income countries (Korinek et al., 2021). AI is predicted to have an unequal and negative disruptive effect on people in different geographical and industry areas (Cazzaniga et al., 2024; Crawford, 2021; Goldman Sachs, 2024a, 2024b; McKinsey & Co., 2023). Emerging and low-income countries cannot rely on their labor-intensive industries. They also attract less foreign investment for market development. Their actual GDP is predicted to lower as more developed countries will export labor-saving devices to emerging and low-income countries at much lower prices and lower marginal costs.

4.1.2 Eroding human capital

The excessive automation caused by current AI development destroys many laborers' lives and reduces the chances of shared prosperity among poor people (Klinova, 2024). Acemoglu and Restrepo (2022) remind us that automation created by AI fails to create compensatory labor demand in the economy and results in poor labor returns. Workplace monitoring technologies only speed up and intensify the creation of excessively punitive environments and the shifting of risks from employers to employees (Klinova, 2024). AI has eroded human capital. The productivity of some people may increase, but they are not fairly compensated when the price of their output is driven lower. More

so-called AI + human operations will still require some human presence but will allow companies to hire cheaper and low-skilled professionals to do the tasks, while comparatively expensive and aging experienced professionals are to be replaced.

AI may increase the productivity of low-skilled professionals, in certain fields, as they can quickly simulate to the quality standards and efficiency as high-skilled professionals (Dell'Acqua et al., 2023). However, the increasing return of capital with similar or reduced labor will limit their ability to earn a higher income. The illusion of mastery among low-skilled professionals may also prevail. They may rely on AI and not adequately understand relevant functions or be equipped with the relevant knowledge when the AI tool is taken away or does not perform as expected (Felten et al., 2023). They will also lose opportunities to learn how to judge and become mature in their learning. They become consumers of mass information and also lose the opportunities to learn now automated tasks. When some tasks are delegated to AI, workers may lose their ability to understand the holistic aspect of the tasks and reduce their productivity. Thus, automation of a subset of tasks may reduce productivity in the remaining tasks. This is called the losing economics of scope (Acemoglu, 2024). When the economics of scope is important, human beings cannot acquire knowledge from performing certain automated tasks and thus transfer their knowledge to another task to increase productivity. AI may add additional costs when the economics of scope are important for productivity. The prominent philosopher, Achille Mbembe (Bangstad & Nilsen, 2019) reminds us that the thinking capacity of human beings is limited and constrained by the epistemology shaped by AI. He states, "*there is a mass need to recover the ability to think. For me, knowledge is on the verge of being reduced to a mere metaphor. As a result, we are witnessing a significant impoverishment of thought almost everywhere.*" Thus, excessive dependence on AI could discourage people from seeking knowledge and hinder the development of human skills that AI cannot define or replicate. This decline in intellectual engagement may ultimately weaken the development of human capital.

4.1.3 Deepening market dysfunction

There is a significant power imbalance between the select few technology companies that control the world AI market and emerging economies and low-income countries. The few AI companies are located in a few powerful countries but serve the entire world economy. These "superstar" companies that are disproportionately located in high-income countries do not bear the cost of employee displacement and welfare outside of their own borders. Their countries' tax systems incentivize capital gain much more than labor gain (Klinova, 2024). Their current legal structure, the scarcity of labor, and norms of being faster than competitors also encourage them to focus on excess automation AI and to market these labor-saving devices to other countries without bearing responsibility for the labor and other countries' economic development. They refine their AI models using data collected from emerging economies and low-income countries without compensation and provide advertisements or information to these regions at a near zero marginal cost. These isolated handful of companies monopolize the international market and create high entry barriers for other firms, especially those in emerging economies and low-income groups. AI devices from these powerful companies will be easily and cheaply rolled out to developing countries and replace many unskilled workers in developing countries. These AI labor-saving devices will reduce investment in developing countries and result in lowering their GDP (Alonso et al., 2020). These few "superstar companies" enjoy winner-takes-all benefits, undermine the bargaining power of traditional labor, and do not pay meaningful or fair price for increasing the social and political turmoil in countries with high populations of many unskilled workers and low AI readiness (Korinek et al., 2021).

In low-resource settings, where states delegate core welfare and security functions to algorithmic systems—frequently managed by transnational entities such as Google and Amazon—poverty becomes algorithmically reproduced through processes of surveillance and misclassification. When a small group of private technology companies controls the AI foundation models, existing power structures are likely to be reinforced and labor conditions are likely to worsen (Crawford, 2021; Lewchuk, 2017). Foundation models are trained on broad datasets that contain not only statistical/computational biases but also human and system biases. They may perpetuate human and system biases that deepen existing poverty (Bommasani et al., 2023; Maslej et al., 2023; Sendak et al., 2020). Often, the data for training focuses on statistical/computational biases while ignoring historical human

and systemic biases. For example, foundation models are frequently trained on data obtained from white people in developed countries and the data is naturally embedded in their values. The complex layers of these algorithms are not explainable and transparent to all users (Jin et al., 2024). The decision-makers are not held responsible for what they cannot understand. For example, the defects of the foundation model are inherited by application models in the healthcare system, which leaves users unable to understand how the AI system functions or fails. The foundation model can exacerbate social inequalities (Bommasani et al., 2024; Rajesh et al., 2023; Sendak et al., 2020).

4.1.4 Accelerating data colonization

The current data extraction and accumulation of data as capital only leads people to abstract from the material conditions of these AI devices while extracting data and resources from those least able to resist (Crawford, 2021). Potential harms of AI include privacy violations, unfair competition, and behavior manipulation (Acemoglu, 2024). Companies with more data than competitors often violate customers' privacy by processing and using their data for their own advantage, and also exploit biases and vulnerabilities that consumers do not recognize. The market will be further distorted for the interests of those AI higher achievers. When AI issues are treated as primarily technical issues solved by experts, we may ignore how AI worsens poor people's economic activities. When corporate leaders are anxious to seek opportunities afforded to them by AI and to get ahead of their competition, they have shown a willingness to take higher risks to speed up and scale their deployment of AI that may end up harming human beings and society in the long run (Murray, 2024). Given the commercial ambitions about investment in AI and the AI national race, the public may defer ethically and politically contentious AI issues to technocratic and government elites. The pending AI national race will rationalize and weaponize national surveillance on people's daily lives. Poor people's lives will be dominated and exploited more by providing data for national security.

4.2 What strategies must be adopted to strengthen human resilience to AI-induced adversity in the domain of poverty?

Multi-level resilience-building strategies involving individuals, organizations, national systems, regional alliances, and international cooperation are proposed. These include developing human capital, broadening representation in the development and implementation of government policies, building local communities and organizing an AI governance system, and increasing participation capacity in global AI governance.

4.2.1 Developing human capital

Individuals must develop critical digital literacy and develop critical awareness of how AI technologies construct and influence self-identity, social relations, and shared cultural narratives. Individuals must be equipped not only to interrogate the algorithms that increasingly govern everyday life, but also to actively participate in identifying and reporting their misuse, and in developing their own AI solutions. Cultivating reflective, community-based critique is essential for transforming public consciousness, especially in nations with fragile governance, where grassroots epistemic engagement can drive bottom-up reform and shift societal mindsets.

We need to think deeply about how we can have a broader engagement of people in the development and deployment of AI in different sectors so that AI will not "amplify and reproduce the forms of power it has been deployed to optimize" (Crawford, 2021, p. 224). We need to demand investment from AI companies in the development of safe AI first and to more thoroughly research human interfaces in AI design. Tasioulas (2022) concluded that "*our focus must be properly integrating AI technology into a culture that respects and advances the dignity and well-being of humans, and the nonhuman animals with whom we share the world, rather than on the highly speculative endeavor of integrating the dignity of intelligent machines into our existing ethical framework*" (p. 240). We need to resist the current development of AI and imagine a better ecosystem that can advance the dignity and well-being of humans and non-human animals on this planet.

AI co-evolves with society and changes our expectations about the functions of AI and the meanings of intelligence provided by AI. As AI becomes associated with prolonged processes of social

and technological co-evolution, we can collectively question how economic and political structures, power, and the dynamics of social injustices created by AI generate more dialogue on what needs to be changed for more people to economically and socially flourish. Without productive questioning, we cannot easily adapt to the changes and expect a better return without paying attention to the direction of the technology. Sheikh et al. (2023b), "*The development of system technologies is often unpredictable, and their effects cannot be fully anticipated…The generic nature of such technologies implies that they have the potential to affect all public values*" (p. 100). It is essential to provide a better environment for the development and deployment of AI for public benefit and to develop a collective vision of better ecosystems for human flourishing.

4.2.2 Broadening representation in the development and implementation of government policies

Government policies should reduce structural inequalities and provide insurance or social networks for those who are displaced or reskilled by the AI changes. Policy-makers and regulators are recommended to introduce all technical, social, economic, and scientific dimensions of AI systems in society (Bommansani et al., 2023) through the following five key tasks: clarify what AI is and focus on actual risks and opportunities (i.e., demystification); create a functional ecosystem to make AI work (i.e., contextualization); involve diverse stakeholders from civil society to address relevant values and interests affected by the use of AI technology (i.e., engagement); develop a directive framework (i.e., regulation); and engage wisely with other global actors (i.e., societies) (Sheikh et al., 2023). These five tasks steer the process of co-development between technology and society. The progress of AI and the shared benefits of AI are most likely to be maximized in democratic societies that allow many stakeholders to contribute and control the direction of AI's development, even though the wealthy "super-star companies" are mainly centered in these countries (Acemoglu & Johnson, 2023). Thus, human beings need to be conscious of the dynamics between AI and the social, economic, political, and historical context supporting and enabling AI.

4.2.3 Building local communities and organizing an AI governance system

In countries with limited governance capacity, cultivating community ethical and participatory AI oversight can serve as a strategic pathway toward strengthening democratic accountability and institutional legitimacy. By equipping stakeholders with the knowledge, tools, and organizational structures—such as ethics committees, open-source audit platforms, and inclusive data governance policies—these societies can gradually establish frameworks for transparency and civic engagement, even in the absence of robust regulatory enforcement. Stakeholders will often demand that individual developers integrate ethical and legal issues much earlier in their design stage, and for organization users to implement quality assurance and data governance policies. The collective scrutiny by local communities, particularly when focused on public sector algorithms, enables a bottom-up approach to reform where citizens actively shape norms of algorithmic accountability and demand more responsive, accountable, and transparent technologies. In this way, building the societal capacity to interrogate and influence AI systems becomes a catalyst for broader governance reform and empowers people to challenge opaque systems and assert their place in shaping equitable digital futures.

4.2.4 Increasing participation capacity in global AI governance

Effective participation in global AI governance demands that countries with limited technological infrastructure invest in foundational systems. These systems include reliable internet connectivity, stable electricity, and comprehensive digital literacy initiatives. Equally vital is the cultivation of domestic expertise in AI ethics, regulation, and policymaking. These efforts must be complemented by international cooperation and strategic resource-sharing to accelerate digital capacity building, craft inclusive AI strategies, and actively engage in global multilateral dialogues (OECD, 2019; United Nations, 2024; World Economic Forum, 2025a, 2025b). By leveraging existing global ethical AI frameworks like those developed by the OECD and the United Nations, and by expanding regional and international collaboration, countries can move from peripheral observers to influential contributors. Shared investment in resources, skills, and knowledge exchange is essential to shaping a globally inclusive AI ecosystem rooted in fairness, cultural relevance, and co-governance. To ensure

equitable outcomes from AI-driven transformations, inclusive development forums and robust social protection policies should be prioritized to support individuals displaced or reskilled by automation (Geiger & Iaia, 2024; Lee, 2024). As Png (2024) highlights, actors from the Global South must be empowered to challenge exclusionary governance structures, contribute contextually relevant alternatives, and critically interpret AI harms through locally embedded knowledge systems.

5 DISCUSSION

The findings underscore how AI technologies can exacerbate structural disadvantages in developing nations with fragile governance systems. When these countries prioritize short-term gains from rapid AI adoption—often without investing in institutional capacity—they undermine their ability to build resilient mechanisms to manage technological disruptions and mitigate AI-induced and intensified poverty. This vulnerability creates fertile ground for corruption, as some AI companies and their local political elites may exploit regulatory gaps to extract disproportionate profits. Poor governance and poverty often exist in a self-reinforcing cycle. In the absence of robust governance, AI risks deepening market dysfunction, entrenching economic underdevelopment, accelerating data colonization, and further eroding human capital.

As Acemoglu and Johnson (2023) argue, democratic environments with pluralistic participation and institutional checks guiding the trajectory of technological innovation provide the most fertile ground for realizing AI's public value. In such contexts, the integration of diverse perspectives fosters more equitable and accountable technological outcomes. To ensure that AI serves as a tool for enhancing societal resilience rather than reinforcing systemic vulnerabilities, human actors must remain critically attuned to the socio-economic, political, and historical forces that shape its design, deployment, and impact. This requires more than technical proficiency; it demands the cultivation of critical digital literacy, a foundational component of human capital development. By equipping individuals with the ability to interrogate the power structures embedded in AI systems, societies can better navigate the ethical, economic, and governance challenges posed by emerging technologies.

In summary, the deliberate cultivation of human capital—paired with the strategic mobilization of accessible regional and international resources—constitutes a vital imperative for developing nations aiming to fortify governance infrastructures and build enduring capacity to confront and recover from AI-induced adversity, particularly in the realm of poverty. As artificial intelligence becomes increasingly embedded within socio-political and economic systems, these interdependent domains must evolve not merely as reactive safeguards, but also as proactive instruments for fostering inclusive, equitable, and resilient development.

6 CONCLUSION AND FUTURE RESEARCH

AI-induced poverty is a critical form of adversity. Many countries with weak governance structures prioritize AI investment over governance reform and have shown an unwillingness to commit to tackling corruption, increasing transparency, and redistributing income. Some countries even depend more on irrelevant data sets, opaque algorithms, and non-transparent computation logics in the automated process of service delivery when they do not develop their governance capability for ethical and responsible usage of AI. They risk entrenching economic underdevelopment, eroding human capital, deepening market dysfunction, and accelerating data colonization. It is essential to consider how AI-induced poverty intensifies and multiplies when additional structural inequalities are present. It is also important to consider how data extraction from geographically distant countries may lead to economic and human capital underdevelopment. A challenge to the ubiquity and supremacy of the few superpower companies would benefit many.

More stakeholders need to be invested in the post-colonial discourse around AI systems and demand to move from treating people as data to be minded toward treating them as human beings to be regarded with dignity. With better public education about what AI is and a broad engagement of the public about the direction of AI and practices around the technology, we can rebalance the power between AI technology companies and consumers for inclusive growth and shared prosperity. We must know what AI is and understand its limitations. The effectiveness of AI depends on the contexts

that support it. We need to be conscious of our core human values, such as genuine human contact and the dignity of work, that are gradually being threatened and replaced by AI as the development of technology mainly focuses on the economics of scale, efficiency, and lower costs.

AI-innovation should be steered toward labor-using rather than labor-saving for greater justice. Advanced economies should prioritize AI innovation and integration, providing a robust regulatory framework and capital tax to ensure that these few AI companies compensate those whose lives are disrupted by the development and deployment of these technologies. Emerging markets and low-income countries should invest in digital infrastructure, institutional capacity, a digitally competent workforce, and in adapting for AI labor-using rather than labor-saving purposes. The co-development process between society and technology should involve wider stakeholder participation to increase human resilience in an AI-driven world. Inclusive global dialogues that enable emerging economies and low-income countries to have voices and be compensated fairly in the global competition policy, intellectual property rights, data and information policy, and new transparency regulations must be adopted.

More research needs to be conducted to increase human capacity to deal with and recover from adversity induced by the development and deployment of AI in our daily lives (Eshelman et al., 2012; Lyreskog et al., 2023; Vaill, 1989).

These are future research questions:

1. How can educators and policymakers increase human capital such that they become more resilient in the process?
2. How can the benefits of AI be shared by more people, specifically by those on the margins of power and wealth?
3. What new skills and knowledge do humans need to effectively communicate with AI, especially when steering AI innovation for labor-using rather than labor-saving for greater justice?
4. What global policy must be adopted to deal with structural inequalities that accelerate poverty in developing and emerging countries?
5. How can AI be regulated for inclusive growth?

Our current choices in understanding, using, and regulating AI systems will determine whether AI can eradicate poverty and increase resilience in the future. The integration of AI into our current social-political-technology systems must address current challenges such as data quality, technical infrastructure, institutional governance capacity, organizational capacity, responsible practices, global inequality and poverty, and power imbalance between the few AI "superstar" companies and emerging economies and low-income countries. Without proper interventions and steering AI innovation toward labor-using practices and greater shared prosperity, social and wealth inequality could increase even among knowledgeable workers in developed countries. Nations with strong economic governance are more resilient than those with weak governance because they can redistribute AI-driven growth to vulnerable people. More people need to be educated about what AI is and collectively demand better AI ecosystems that respect the dignity of work, autonomy, justice, and community development if we want AI to increase our resilience.

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EMPATHY AND VIRTUAL REALITY TECHNOLOGY IN CONTEMPORARY EDUCATION: OPPORTUNITIES AND CHALLENGES[1]

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ABSTRACT

It has been proven that integrating empathy with learning content in the educational process improves the understanding of topics while strengthening young people's emotional intelligence, social skills and ethical thinking. Teachers can facilitate the creation of an inclusive and interactive learning environment by designing activities that enhance the ability to understand the perspective of others. In this context, it is useful to consider methods that facilitate the development and integration of empathy into the learning process. One such method is the use of virtual reality (VR) technology, which allows students to experience challenges from another person's perspective by simulating real-life situations, thus directly promoting the development of empathy. While VR technology offers numerous benefits, it also presents some challenges that need to be considered when integrating it into the educational process. This presentation highlights these aspects, drawing on the results of a survey conducted among a sample of teachers and students in Slovenia as part of the VR4Empathy (Using virtual reality for inclusive and action-oriented empathy in schools) project. The overall aim of the VR4Empathy project is to develop, test and disseminate the informed use of VR to promote the development of cognitive empathy in the school environment, with the aim of improving the quality and inclusiveness of digital education at EU level.

Keywords: *Empathy, Virtual Reality (VR), Education, Cognitive Empathy, Adolescence.*

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1 INTRODUCTION

In recent years, rapid technological progress has had a significant impact on various aspects of social life, including education. Among the various technological innovations, virtual reality (VR) has emerged as a powerful tool that has the potential to transform traditional learning environments. Unlike conventional educational methods that rely on passive knowledge transfer, VR offers an immersive and interactive experience that engages learners in new and diverse ways. By simulating real-life situations and allowing interaction in virtual environments, VR integration has been shown to enhance the learning process by making abstract concepts more tangible and enabling deeper understanding.

In addition, the integration of VR into education has been shown to promote 'soft' skills, which are also an essential part of learning processes. Soft skills encompass a range of abilities, including empathy, which enables effective functioning in one's environment, effective engagement with others and the achievement of one's goals (Cinque and Susan Kippels 2023, 8). These skills play an important role in the learning process and influence various aspects of learning and teaching. Empathy, communication and critical thinking have been shown to positively impact the quality of the learning process by promoting better interpersonal relationships between students and teachers, increasing students' motivation and improving their academic performance (Durlak et al. 2011, 405–406).

This paper explores the use of VR technology as a tool to promote the development and integration of empathy as a 'soft' skill in the learning process of adolescents. The integration of empathy (especially cognitive empathy) into learning content has been shown to improve the understanding of learning content while promoting the development of emotional intelligence, social skills and ethical thinking (Durlak et al. 2011, 417–419).

2 THE ROLE OF EMPATHY IN THE LEARNING PROCESS

2.1 Empathy and Its Meaning

Empathy is commonly understood as the ability to understand and empathise with the emotions and experiences of other people (Decety and Jackson 2004, 71). In this context, two different but interrelated components of empathy are distinguished: cognitive and emotional. Cognitive empathy is defined as the ability to understand another person's perspective, thoughts or feelings on an intellectual level. It involves the ability to understand the mental or emotional state of another person without necessarily sharing or experiencing that state. Emotional empathy, on the other hand, is defined as the ability to share and experience another person's emotions as if they were one's own, thus going beyond a purely intellectual understanding (Preston and de Waal 2002, 2–4).

Empathy, especially cognitive empathy, enables a deeper understanding of others' perspectives, a skill that is essential for building mutual trust and collaboration. Empathy has been shown to play an important role in reducing and resolving conflict and strengthening social cohesion in a society (Baron-Cohen 2011, 183). Empathy is often seen as a facilitator of democratic dialogue, as it enables individuals to overcome an egocentric worldview and adopt a sociocentric perspective that includes the viewpoint of others (Tudor 2011, 52). Empathy is seen as a fundamental element in the formation of our collective identity and the social fabric that binds us together. Active empathy is crucial for the social and moral development of individuals. As social beings, building social bonds is a prerequisite for our physical and emotional survival. Empathy facilitates the coordination of individual actions, promotes understanding of the thoughts and intentions of others and strengthens solidarity (Anderson and Keltner 2002, 21–22). Empathy fosters the development of lasting social bonds, promotes altruistic behaviour and acts as a deterrent to interpersonal violence (Tudor 2011, 39–40). Empathy also helps us to recognise when our actions towards others are harmful, enabling us to correct them (Simonič 2020, 319).

2.2 Development of Empathy in Adolescents

It is known that empathy develops significantly from childhood to adolescence (Allemand et al. 2015, 230) and further into adulthood (Kim et al. 2020, 121–122). During adolescence, the development of empathy undergoes significant changes and plays a crucial role in shaping social interactions and prosocial behaviour (Smith and Stamoulis 2023). The development of empathy from ad-

olescence to adulthood is influenced by biological, cognitive and environmental factors, and there are gender differences in development. Girls typically show earlier and more advanced cognitive empathy beginning at age 13, while affective empathy remains consistently high throughout adolescence. In contrast, cognitive empathy increases in boys from the age of 15, accompanied by a temporary decline in affective empathy between the ages of 13 and 16. This decline usually regresses in late adolescence, reflecting a dynamic maturation process (Van der Graaff et al. 2014, 882). Neurobiological changes, particularly in the prefrontal cortex, support the development of empathy by improving perspective taking and understanding of the mental states of others (Blakemore 2008). Cognitive advances, such as abstract thinking and metacognition, strengthen the ability to consider multiple perspectives (Dumontheil 2014, 58–59). The interplay of these factors contributes to a nuanced timeline of cognitive and affective empathy, emphasising the complexity of its development during adolescence.

The development of cognitive empathy during adolescence is influenced by several interrelated factors. In addition to neurobiological changes and cognitive progress, social experiences also play a central role. Adolescents increasingly participate in complex social interactions that provide valuable opportunities to observe, interpret and learn about the thoughts and perspectives of others (Dvash and Shamay-Tsoory 2014, 283–284). Peer relationships are of particular importance in this process. Peer relationships are crucial for the development of perspective-taking and empathy, which in turn shape social and emotional understanding (Van Hoorn et al. 2016, 923–924). The family environment is also crucial, with parental role modelling, open communication and emotional support being important influences on the development of cognitive empathy (Decety and Michalska 2010, 887; Van Heel et al. 2020, 22–23).

Educational practises that include the school environment and targeted programmes have the potential to promote cognitive empathy. Schools that emphasise the promotion of perspective taking and understanding the emotions of others can improve adolescents' empathy skills (Jolliffe and Farrington 2006, 548). A similar developmental process has also been shown to be influenced by media use. Media content that shows different perspectives, emotional depth and complex characters can positively influence young people's cognitive empathy (Konrath et al. 2011, 180–181). The influence of cultural and social factors is also highlighted as a factor contributing to individual differences in cognitive empathy. Cultural contexts have been shown to shape the importance placed on understanding the perspective of others and significantly influence the development of empathy (Quesque et al. 2022, 664–668).

2.3 The Importance of Empathy in Educational Processes

In an era characterised by rapid technological advances and global interconnectedness, the role of empathy in education today has become a major focus for educators and policy makers alike. Empathy is increasingly recognised as essential to cultivating a supportive learning environment that fosters student engagement and collaboration. Integrating empathic practises into the curriculum has been recognised as a key strategy for equipping students with the skills necessary to navigate complex social dynamics and collaborate effectively in a multi-layered global environment.

Empathy in education can be defined as the ability to recognise, understand and resonate with the emotional states of students and is a cornerstone of effective teaching and learning. This emotional intelligence is critical for educators, not only to create a supportive environment in the classroom, but also to improve students' academic performance. There is empirical evidence that teachers who exhibit higher levels of emotional intelligence are rated more favourably by their students, suggesting that empathetic interactions facilitate deeper connections and understanding in the learning process (Rahman et al. 2024, 13–14). Empathy is important for fostering students' critical thinking and reflection, thus going beyond traditional educational paradigms. Educators who prioritise the cultivation of empathetic relationships can foster students' emotional growth and resilience, underscoring the central role of empathy in contemporary education. Consequently, empathy has the potential to shape a more dynamic and inclusive educational landscape in which all students can flourish (Makoelle 2019, 1–2).

Empathy is widely regarded as a fundamental pillar for the development of stable student-teacher relationships, which have a significant impact on the educational experience. By cultivating an empathetic environment, educators create a sense of appreciation and understanding among students, encouraging active engagement in the learning process. Empirical evidence within the culturally responsive teaching paradigm suggests that responding to teachers' needs is critical to student motivation, reinforcing the notion that perspective taking can develop into a pedagogical advantage (Henry and Thorsen 2019, 33–36; Ushioda 2009, 239). When teachers actively engage with students' cultural backgrounds and experiences, they enrich the learning context, creating deeper connections to the curriculum. Furthermore, these empathic interactions accumulate and shape students' long-term motivational dispositions and overall educational success (Lamb 2017, 312). Consequently, empathy not only enriches immediate pedagogical encounters, but also cultivates lasting relationships that contribute to a more inclusive and effective learning environment (Makoele 2019, 5).

Integrating empathy into pedagogical practises has been shown to significantly improve student learning. By integrating empathy into pedagogical approaches, educators can create a more engaging learning environment that encourages students to actively participate and connect course content to their own experiences (Brown and Reushle 2009, 531–533). In addition, the need for collaboration between institutions and communities supports the development of curriculum that is both relevant and applied, as evidenced by effective cross-curricular approaches that prepare students for real-world challenges (Cotič et al. 2021, 3144). Cultivating empathy has been shown to enhance both individual learning experiences and the educational community as a whole.

Integrating empathy into modern education is critical not only for academic success, but also for the development of socially responsible human beings. An empathetic pedagogical approach fosters an enriching learning environment by encouraging students to engage with different perspectives, thereby improving their relational understanding and motivation. This assertion is also supported by research findings that suggest that incorporating perspective-taking exercises into lessons can have a significant impact on students' intrinsic motivation and the overall quality of their learning experience (Henry and Thorsen 2019, 35–36). Furthermore, cultivating empathy has been shown to impact not only the immediate classroom dynamic, but also extends beyond the educational sphere and contributes to altruistic behaviour in society more broadly (Bekkers 2006, 349). Consequently, prioritising empathy in educational settings has the potential to profoundly impact student trajectories and ultimately contribute to the development of more compassionate and engaged communities.

3 VIRTUAL REALITY IN EDUCATION

The integration of VR technology into modern education offers significant opportunities for innovation, but also poses significant challenges, particularly in terms of fostering empathy among learners. This technology provides immersive experiences that place students in different social contexts, giving them the opportunity to engage with perspectives that are very different from their own. By simulating real–life situations, such as tackling the challenges faced by marginalized communities, VR can foster a deeper understanding and emotional connection to various social issues. However, the integration of VR into educational practice is not without significant challenges. These include issues of accessibility, implementation costs, and desensitization potential, which raise critical concerns about VR's effectiveness in fostering genuine empathetic responses.

3.1 Virtual Reality Technology and Its Growing Role in Education

In recent years, the integration of VR technology into the education sector has increased significantly and heralded a change in pedagogical approaches. The use of VR in education facilitates experiential learning and allows students to engage with complex concepts by simulating various real-life scenarios. This approach improves understanding by allowing students to actively participate in the learning process rather than just passively absorbing information. Research shows that experiential learning with VR improves understanding and long-term retention of learning content (Remolar et al. 2021). In addition, VR enables a highly personalised learning experience that is tailored to the individual needs and learning pace of each learner. VR facilitates the understanding of abstract and complex content by allowing learners to visualise and interactively explore concepts that would

otherwise be difficult to understand. In the field of science, for example, VR has been used to visualise molecular structures and historical events in a way that promotes deep understanding (Zulfiqar et al. 2023, 143251). VR has also been shown to increase motivation and interest in learning in subjects that are often perceived as difficult or uninteresting.

In interactive VR environments, learners can actively solve problems, which helps them to develop critical thinking and problem-solving skills. By participating in simulations where students have to make decisions and see the results of their actions, they learn to analyse situations and develop strategies. Interactive VR environments have been shown to promote critical thinking and problem solving (Fowler 2015, 412). Students who use VR to solve problems show more creativity and the ability to find innovative solutions.

As educators increasingly recognise the potential of immersive experiences to improve learning outcomes, VR enables environments that promote both student engagement and empathy. This engagement is not just about retaining content better, but also about fostering emotional connections through experiential simulations that allow learners to put themselves in different perspectives. For example, VR allows students to immerse themselves in scenarios that challenge societal preconceptions and foster empathy so that they better understand the complexity of the human experience. Design and creativity play a crucial role in the development of these immersive educational experiences. Such methods promote responsible action and ethical reasoning in educational situations, ultimately enriching students' understanding of social dynamics and collaboration (De Vos et al. 2019, 605–606; Dhiman 2023, 4–8).

3.2 Enhancing Empathy Through Immersive Experiences

The integration of VR technology into educational environments represents a transformative approach to fostering empathy in learners. Because immersive experiences place individuals in different contexts, they break down preconceived barriers and facilitate deeper emotional connections with other perspectives. VR can significantly improve empathy through processes such as perspective-taking and experiential learning, ultimately contributing to social cohesion and understanding in the classroom. In particular, immersive media has been shown to break down stereotypes and promote inclusion, with studies highlighting its effectiveness in allowing students to authentically experience the lives of others (Dhiman 2023, 9–10). However, it is crucial to view the implementation of VR with a critical lens and consider the socio-political implications and cultural contexts associated with the design and use of VR that may influence users' experiences and emotional responses (Bos 2021). This balanced integration of VR technology thus paves the way for a richer educational atmosphere that fosters empathy and understanding.

Studies have shown that VR can increase both cognitive and emotional empathy in students (Trudeau et al. 2023). VR can reduce prejudice and improve understanding of cross-cultural differences, which is crucial for promoting global citizenship. VR is often referred to as the 'ultimate empathy machine' as it allows individuals to immerse themselves in an experience from another person's perspective. VR's ability to simulate real-life situations allows learners to understand other people's challenges, which directly supports the development of empathy. In education, this contributes to greater inclusivity and a better understanding of different perspectives.

3.3 Opportunities and Challenges Presented by Virtual Reality Technology in Education

The integration of VR technology into education offers unprecedented opportunities to enhance the learning experience and develop empathy in students. By immersing learners in dynamic environments, VR allows them to engage deeply with different perspectives, fostering understanding and compassion. For example, VR can facilitate experiential learning by simulating real-life scenarios that are crucial for developing empathy in contexts ranging from social issues to historical events. Immersive media not only improves perspective taking but also strengthens emotional connections, ultimately bridging the empathy gap that traditional educational methods often fail to close (Dhiman 2023, 3–5). As highlighted in (Hutson and Olsen 2023), the use of VR role-playing can increase student engagement and reduce anxiety, creating a more inclusive and effective learning atmosphere. Taken together, these attributes highlight the transformative potential of VR in training empathetic, informed and adaptable learners in modern education.

The integration of VR technology into education also presents significant challenges that should not be overlooked. Firstly, the financial implications are significant, as the introduction of VR requires considerable investment in hardware, software and ongoing maintenance, which may be prohibitively expensive for many institutions. In addition, the steep learning curve associated with adapting teachers and students to VR technology may hinder its effective use. Research suggests that promoting a responsible and ethical approach to design in educational contexts is essential (De Vos et al. 2019, 606). Furthermore, while VR has shown the potential to promote empathy and enhance cognitive understanding, the relationship between this technology and the user experience needs to be critically evaluated (Zhang and Carroll 2024, 86–88). Taken together, these factors highlight the complexity educators face when attempting to use VR for transformative learning experiences.

The use of VR technology in education brings with it significant accessibility and equity challenges that must be addressed to ensure inclusive learning environments. Undoubtedly, the immersive nature of VR offers transformative opportunities for building empathy and engagement, however, inequalities in access can exacerbate existing inequalities between different groups of students. For example, students from low-income backgrounds may not have the necessary hardware and internet connection, limiting their ability to participate in VR-based curricula. In addition, when integrating VR, care should be taken to develop inclusive experiences that meet diverse learning needs. VR technology also poses challenges in terms of accessibility and inclusion, especially for students with disabilities (such as children with visual or hearing impairments, children with autism, ADHD and other intellectual disabilities) (Graeske and Sjöberg 2021, 79–82; Quintero et al. 2019). It is important to develop VR experiences that cater to different learning styles and make these resources universally available. Accessible design practises are critical to ensure that all learners, regardless of ability, can benefit from these advanced educational tools (Almufarreh and Arshad 2023, 9–10). Bridging the digital divide and ensuring that VR tools are inclusive and accessible are critical to realising their full educational potential (Serrano-Ausejo and Mårell-Olsson 2023, 5529).

As highlighted in recent studies, implementing training modules that embed the principles of diversity, equity, inclusion and belonging in VR environments can facilitate meaningful participation for different demographic groups (Oetken 2024). Furthermore, teaching the digital skills required to use these technologies is crucial for educational equity (Hasan et al. 2023, 1263). Ensuring equal access to VR is crucial to maximising its educational potential.

4. SURVEY: MOTIVATIONS FOR USING VIRTUAL REALITY TECHNOLOGY IN EDUCATION

4.1 Method

In the following, we present these aspects in the light of the results of a survey conducted among a sample of teachers and students in Slovenia as part of the project "*Using virtual reality for inclusive and action-oriented empathy in schools – VR4Empathy*" (VR4Empathy 2004). The "VR4Empathy" project aims to explore how VR can improve students' empathy skills and motivation to learn. The main aim is to use VR as a tool to promote cognitive and emotional empathy in young people, enriching their learning experiences and outcomes. By immersing learners in virtual scenarios, the project aims to help them put themselves in the perspective of others, fostering a deeper emotional connection and engagement with educational content.

"VR4Empathy" brings together 7 partners from 4 different European countries - Portugal, Slovenia, Greece and Denmark. In this paper we present the results of a qualitative study conducted on a Slovenian sample as part of the second work package of the project.

The aims of the study were 1. to investigate the motivation for VR-based learning, 2. to identify strategies to improve lesson tracking, 3. to investigate the most inspiring lesson and 4. to evaluate the role of VR in the classroom. In our study, we focus on the last point by exploring teachers' and students' perceptions of the integration of VR technology in the classroom and its impact on teaching and learning.

4.1.1 Participants

The participants were 15 teachers and 39 students from three different secondary schools in Slovenia.

Table 1. Sample structure of teachers and students participating in the study

School	Teachers	Students
1st School – Urban Secondary School	8	16 (11 female, 5 male)
2nd School – Urban Secondary School	4	12 (all males)
3rd School – Rural Secondary School	3	11 (5 female, 6 male)

4.1.2 Procedure

Design thinking workshops were held with teachers and students from each school. The aim of the workshops was to explore the motivation for using VR-based educational resources and learning with them. The workshops for students and teachers took place at the same time to enable an exchange of experiences between the two groups of participants. The collaboration allowed for relationship building and a better understanding of the contexts that influence the learning process and that are sometimes beyond the control of students and teachers.

A detailed research protocol was developed, and a structured approach was taken during the workshop to explore students' and teachers' perspectives and experiences of educational methods and tools. The workshop was designed to create an open and collaborative environment where participants felt comfortable sharing their insights without judgement or evaluation. Activities were structured to encourage engagement, creativity and reflective thinking, ultimately contributing to a comprehensive understanding of participants' perspectives.

The researchers wrote up the key themes that emerged from the design thinking workshops and conducted a content analysis of them.

4.2 Results and Conclusions

Below we present the results in relation to the role of VR in the classroom. The responses from teachers and students were collected based on the question 'When you think of VR, could it fulfil one of the criteria of the most inspiring lesson you mentioned?'

- 1st School (Urban Secondary School)

As soon as the possibility of using VR in the classroom was mentioned by the researcher, the teachers expressed concern about their workload and lack of time. They affirmed that they were open to innovation, but not all of them necessarily had sufficient technical knowledge to develop (and sometimes apply) approaches that required additional computer skills (use of technology).

The participating students felt that it would be interesting to have VR goggles and be able to visualise more easily what the teacher is explaining, and when listing the content areas/topics where they thought they would benefit most from this type of demonstration, they highlighted, for example, history (The story of Minotavrus), geography (Amazon rainforest), etc. However, they pointed out that they would find e.g. insights into current wars (e.g. the war in Syria) too scary.

- 2nd School (Urban Secondary School)

Compared to the students, the teachers were more open to the use of VR in the classroom. In particular, they emphasised the importance of preparing the content in advance, as otherwise the teacher would have to invest too much energy and time in a single lesson. It is important that the aim of such demonstrations is clear, namely to encourage students to be active (e.g. demonstrating mathematical functions, teaching foreign languages).

The students reacted unanimously negatively to the mention of VR. They consider the use of VR unnecessary and wasteful and see no particular benefit that could not be achieved in a simpler way. They pointed out that VR is becoming boring and that they feel it offers nothing that other approaches do not already offer. It is important to point out that two students had explored VR extensively in the previous school year and indicated that it could be useful in situations where additional visualisation would be useful (e.g. biology, history, technical lessons - the inside of machines etc.). However, there was a strong consensus that if VR is to be introduced into lessons, it is important that this type of teaching is only a very small proportion (1-2 hours at most per year) and concerns were expressed that it could otherwise detract from students' knowledge.

- 3rd School (Rural Secondary School)

Teachers accepted the potential idea of using VR on the condition that it only makes up a short part of the lesson (for introductory motivation or reinforcement), as they consider it important that students do not use screens during the lesson. They see the opportunity primarily in the illustration of more abstract material (e.g. in subjects such as physics) or in supporting the concrete application of material (e.g. languages - use in daily practise). Students thought that the use of VR would be interesting and could help them to understand certain content (e.g. how certain processes in nature work, e.g. photosynthesis, physics in everyday life, historical events, the use of mathematical functions in nature).

The key message from students and teachers was very similar and can be summarised as cautious use of VR. The openness to the use of VR is due to the fact that (1) it constitutes a smaller part of the lesson and is used very rarely, (2) it is used in cases where a good visual representation is important but difficult to access with the naked eye in everyday life, (3) the preparation of the lesson is done in advance (no extra work for the teacher). Considering the findings, it is necessary to seriously reconsider the reluctance and (sometimes) resistance to the use of VR and only use it in a way that promotes and supports respectful and inclusive communication between teachers and students, in other words, that VR (also) serves as a means to build a quality relationship in the classroom.

5 CONCLUSION

To summarise, the integration of VR technology into modern education presents both significant opportunities and inherent challenges in fostering empathy. As highlighted in research on immersive media, VR has the unique ability to transcend traditional pedagogical approaches by allowing learners to adopt perspectives and make emotional connections, which is crucial for developing a deeper understanding of different experiences (Dhiman 2023, 11). Furthermore, VR role-playing games show the potential to create immersive learning environments that promote learner engagement and address sensitive issues, including cultural repatriation, which can be particularly challenging in regular classrooms (Hutson and Olsen 2023).

However, research also highlights the importance of a cautious approach to VR implementation. In our research, both students and teachers emphasise that VR is most effective when it complements rather than dominates instruction. It is suggested that VR should be used sparingly when visual representations are important but otherwise difficult to achieve, and that teaching with VR should be carefully planned to minimise the additional workload for teachers. In addition, effective use of VR must ensure that respectful and inclusive communication between teachers and students is encouraged to create a supportive and collaborative classroom environment.

These considerations are compounded by logistical challenges, including unequal access to the technology, potential desensitisation to extreme scenarios, and the high costs associated with VR curricula that can exacerbate the educational divide. Ultimately, the successful adoption of VR in education requires a balanced and thoughtful approach that combines innovation with accessibility, inclusivity and ethical considerations. In this way, VR can become a transformative tool for fostering empathy, building emotional intelligence and creating more inclusive learning environments. Further development and research are key to realising these ambitious goals.

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1.08 Objavljeni znanstveni prispevek na konferenci
Published scientific conference contribution

INTERACTIVE DINING ETIQUETTE LEARNING GAME DESIGN BASED ON PIAGET'S CONCRETE OPERATIONAL STAGE[1]

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ABSTRACT

Dining etiquette is a crucial social skill, especially in formal settings, as globalization and intercultural exchange grow. In business, nearly 50% of negotiations transpire into dining tables, emphasizing table manners' significance. Gamified pedagogical approaches enhance children's motivation, engagement, and retention. Nonetheless, most games tend to concentrate on culinary preparation or hygiene, offering scant on advanced etiquette competencies like the proper table setting, utilization of utensils, and formal dining conduct. This investigation is anchored in Piaget's theory of cognitive development, particularly the concrete operational stage, which underscores the significance of experiential learning for children aged 6-12. The results inform a design that integrates visual interactions, tactile components, gamification, multiplayer functionalities, level progression, and magnetic induction-based haptic feedback. Polylactic Acid (PLA) material is utilized for the 3D printing prototypes. Informed by human-computer interaction and user experience design, the study assesses the system's operational capabilities, usability, and educational efficacy. The findings indicate that children demonstrate superior proficiency in mastering utensil placement tasks more effectively than with traditional methods. The interactive design promotes immersive learning, enhancing children's comprehension and retention of table manners. This research establishes a robust foundation for the creation of innovative educational instruments that enrich children's social and cultural learning experiences.

Keywords: *Dining etiquette, Interactive learning, Gamification, User Experience Design, Piaget's theory*

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1 INTRODUCTION

In recent years, the significance of dining etiquette has been recognized as an essential element of professional development, prompting higher education institutions to increasingly offer courses designed to equip students with the requisite skills for success within the business domain. It is defined as appropriate manners and behaviors in formal dining environments. Dining etiquette embodies not only a collection of rules governing table conduct but also represents a fundamental competency that cultivates respect, discipline, and self-assurance in social engagements (Rubenstein and Mullen 1995; O'Farrell 2012). In addition, dining etiquette reflects professionalism and embodies soft skills which have become an important skill in the 21st century.

Notwithstanding its significance, conventional pedagogical approaches to teaching dining etiquette frequently lack interactive elements hence incorporation of interactive gaming within educational contexts is experiencing a surge in popularity due to its capacity to reconcile traditional educational paradigms with experiential learning modalities (Alaswad and Nadolny 2015; Kent State University 2024). Integrating gamification techniques can change abstract constructs, such as social conventions, into immersive and pleasurable learning experiences. In addition, traditional methods do not address the cognitive and developmental requisites of children which are addressed by Piaget's theoretical framework, specifically concrete operational stage of cognitive development (ages of 6-12). The theory indicates that children use their surroundings and what their people have defined as their source of information. What children see and hear shapes them for life and sets a foundation for their development.

The global marketplace has adopted the paradigm of gamified learning, resulting in a diverse array of interactive experiences that range from reading games to role-playing exercises, all meticulously crafted to render the learning process enjoyable for children. As technological advancements continue to progress, there exists an escalating demand for innovative designs that utilize interactive technology to address the distinctive preferences and developmental requirements of children. This paper is underpinned by two principal aims: to design an interactive dining etiquette learning game for teaching dining etiquette and to assess its influence on children's understanding, and application of dining etiquette competencies specifically table setting and utensil navigation. The game will be developed in accordance with Piagetian theoretical frameworks, prioritizing tangible activities such as placement of items on the table, roleplaying, pattern identification, and adherence to rules to enhance children's grasp of appropriate dining conduct. By investigating the convergence of cognitive development theory and the design of this game, this paper not only propels theoretical discourse but also confronts a practical dilemma in early social education.

Adherence to proper dining etiquette not only fosters a favorable impression but also significantly impacts professional success. It establishes a social platform wherein individuals can observe and be observed, facilitating social acceptance and affirmation (Falcão and Price 2009). Given the compelling evidence that correlates dining etiquette with professional interactions—such as the statistic indicating that approximately fifty percent of all business negotiations are concluded over meals (Cao et al. 2010), our initiative intends to acclimate children to these vital skills through an engaging and interactive game.

2 BACKGROUND

2.1 Concrete Operational Stage in Teaching Dining Etiquette

Children in this stage are developing the ability to think logically about physical objects and events, making it an optimal time for teaching skills like dining etiquette. During this phase, they can learn best through hands-on activities that allow them to manipulate objects such as plates, utensils, and napkin-reinforcing their understanding through guided feedback (Piaget 1950).

Piaget emphasized that children in the Concrete Operational Stage benefit most from physical interaction with their environment. They learn best when engaged in activities that allow for manipulation and hands-on experimentation, making this an ideal period to introduce tangible experiences of dining etiquette. The key characteristics of this stage that justify its relevance to our study include:

1. **Physical Interaction with the Environment**: At this stage, children can manipulate objects and learn best through active, concrete engagement. The interactive design of our game, which involves physical items like utensils, napkins,and plates, supports this learning style (ibid.).
2. **Logical Reasoning and Guided Discovery**: Children at this stage begin to form cause-and- effect relationships and are capable of logical reasoning, albeit with the help of guidance. This is crucial in understanding dining etiquette, where actions like placing utensils correctly require reasoning and understanding social conventions (ibid.).
3. **Curiosity and Exploratory Learning**: Children in this stage are naturally curious and enjoy experimenting. Our design taps into this curiosity by offering challenges that engage their interest and reward correct behavior, making learning dining etiquette enjoyable (Flavell 1999).
4. **Repetition and Feedback**: The Concrete Operational Stage is marked using repetition to reinforce newly acquired skills. In our game, children practice placing utensils and setting the table until they receive positive reinforcement, reinforcing the correct behavior (Barret et al. 2019).

Dining etiquette is more than just a set of rules about table manners; it serves as a foundation for social interactions and emotional intelligence. In the context of children's development, dining etiquette becomes a means of cultivating social skills such as respect for others, patience, and self-regulation (Fiske 2010).

2.2 Gamification, Interactive Learning & User Expereince Design in Dining Etiquette Interactive Game

Gamification has emerged as a transformative advancement, extending its impact across diverse domains such as healthcare, economics, technology, and cultural studies. Within the realms of game studies and Human-Computer Interaction (HCI), both industry and academia have increasingly recognized its potential (Hamari and Koivisto 2015; Appiah et al. 2024). At its core, gamification integrates game mechanics into non-game contexts, with the aim of fostering engagement and delivering value. Previous researchers have found that integrating gamification into education makes learning fun and enjoyable and promotes a positive attitude. It is said that it supports and motivates users and can thus lead to enhanced learning processes and outcomes and allows players to explore problems and solutions actively (Kapp 2012; Anderson et al. 2019). For these reasons gamification boosts confidence, awards autonomy, promotes collaboration and enhances interaction.

In the era of technology, traditional methods of doing things are becoming more inefficient and demotivating to learners. Interactive learning is a new way of teaching whereby technology is incorporated, this use of technology enhances engagement, motivation, enjoyment, collaboration, minimal to no supervised interaction. Learning is interactive as it allows students to take actions such as processing the content shared, improving their knowledge, solving problems, and achieving certain results among other things. It is said that it encompasses learning theories such as cognitive and affective dimensions, emotional aspects, to enhance educational experiences (Törmänen et al. 2022). Together these learning theories create an unimaginable learning experience that we want to achieve with our design.

Within the domain of Human-Computer Interaction (HCI), the notion of User Experience cannot be disregarded, as it represents a fundamental principle in design. This concept is articulated as perceptions or reactions elicited from the utilization or the anticipated engagement with a product, service, or system. Such responses encompass users' emotions, beliefs, and preferences, and may manifest before, during, or after the engagement with the design. Moreover, these responses have the potential to impact individuals in diverse manners and evoke a range of feelings (Jenkins 2000; Kjeldskov and Graham 2003).

3 DESIGN

With the introduction of a new concept/discipline the learners are expected to have an attitude of interest, competitiveness, cooperation, and eagerness to learn, hence incorporation of games in learning content as games encourage learning that is not forced but enjoyable. As mentioned earlier our design is set to enrich children at the ages of 6 to 12 by understanding and cultivating their interest in acquiring proper dining etiquette, we have drawn other benefits from our design.

a) Simplicity and usability

The game is not exclusively constructed for the purpose of entertainment; rather, we have integrated educational components that will enhance children's vocabulary, life skills, problem-solving abilities, memory development, and additional life competencies.

b) Feedback feature

Our tangible user interface components are integrated with Neodymium magnets, which are affixed to Reed switches positioned beneath the tabletop mat; this configuration serves to augment the primary function of our game, namely, the arrangement of table settings. These mechanisms facilitate the detection of both accurate and inaccurate placements of utensils upon the table, wherein each magnet is associated with a specific switch that it attracts.

c) Unlockable stages

Games are designed to present challenges and offer various stages, ranging from elementary to more sophisticated levels. This characteristic fosters motivation and a desire for knowledge acquisition. The levels are determined by diverse table settings encompassing basic, casual, informal, and formal categories. These levels will progress from simple to complex in a sequential manner.

d) Collaborative enhancement

The game facilitates collaborative engagement among participants, as multiple characters can be utilized concurrently. This attribute is significant as it provides individuals with an opportunity to acquire skills in teamwork and coordination. This characteristic will further assist players in achieving the designated objective within the allocated time.

4 PROTOTYPE

The prototype development process for our design followed a User-Centered Design (UCD) approach, focusing specifically on the preferences, needs, and cognitive abilities of children. This approach ensured that the game aligns closely with the target age group's abilities, tastes, and existing knowledge base, facilitating an enjoyable yet educational experience in dining etiquette.

In addition to the UCD framework, our study has integrated Human-Computer Interaction (HCI) methodologies to enhance usability and ensure technical robustness, drawing on key factors like user acceptance, ease of use, and troubleshooting. These considerations allowed for a seamless, child-friendly interface that minimized technical barriers and supported intuitive interaction.

The game features a tangible user interface (TUI) using Neodymium magnets and Reed switches to detect correct and incorrect utensil placements, providing real-time visual and audio feedback. The design is lightweight, portable, and child-friendly, with an intuitive interface that requires minimal supervision. The game also integrates educational components to enhance vocabulary, life skills, and problem-solving, while a 3D-printed prototype ensures ergonomic and user-friendly design. Technical components such as a 7-inch TFT LCD touchscreen, Arduino Mega 2560 control system, and speakers for audio feedback support a seamless learning experience. Our design process considered safety, durability, sustainability, and cultural inclusivity, ultimately creating an engaging and effective tool for teaching dining etiquette.

User-centered design

1) *Understanding users and their needs:* We conducted surveys and collected the data that helped us understand the needs of the children concerning learning dining etiquette, their knowledge about discipline, the preferences of the parents (in terms of content to be incorporated). UCD principle is to involve the uses in the development of the product.
2) *Defining the game requirements:* Every design has an end goal to achieve, and defining the goals enabled us to create game elements that would help us achieve our goal, which is teaching children dining etiquette in a fun and engaging way. Among other things, our game incorporates unlockable challenges features that enhance the eagerness to learn, reward system which sets to reinforce motivation and engagement.

3) *Design solutions:* We have made a discovery that children did not have an interactive game that utilizes technology in the discipline of dining etiquette with TUI, so we brought that to them. Our design enables multiplayer, real time feedback mechanism, progress tracking. This game will also require no or minimal supervision for the children when they play.
4) *Design evaluation:* Our final product has incorporated elements of safety, durability, sustainability, aesthetic appeal, cultural influences, cost efficiency, and ease of use.

5 METHODS AND DISCUSSION

5.1 User experiment

This research aims to create a safe, sustainable, and adaptable interactive game that promotes the acquisition of dining etiquette from an early age. A total of 13 children aged between 6-12 living in Ningbo were recruited to participate in the user experiment. This exercise was meant to help us to test the efficacy of interactive learning over traditional ways of learning, especially for teaching table setting.

During the user testing session, we monitored the children's interaction with the game, interaction with tangible interfaces and their ability to follow the game instructions. Once the tasks were completed, each child participated in an interview designed to delve deeper into their personal experiences with the game. The final stage of our user experiment was a post activity survey whereby participants completed a survey that assessed the game's impact.

5.2 Results and Discussion

Results showed that while most children found the game fun and engaging, with 92.3% successfully completing tasks on their first attempt, some faced challenges. with instructions and feedback, highlighting the need for clearer guidance and a more adaptive difficulty level. These include refining the game's instructions, feedback mechanisms, and engagement strategies to ensure it is both fun and effective for a diverse audience. By addressing these challenges, the game has the potential to become a more universally engaging and educational tool for children learning about dining etiquette.

6 CONCLUSION

This paper offered a practical, engaging alternative to traditional methods of teaching dining etiquette, combining technology and interactive play to provide children with valuable life skills that are both fun and educational. However, there were challenges that may deem the study biased such as small sample size during the testing, which may limit the generalizability of the findings. The study's scope was restricted to a specific group of children within a controlled setting. Furthermore, the study's focus on a standardized set of dining etiquette may not have fully accounted for the varied dining practices and etiquette norms that exist across different cultures and regions. Incorporating a broader range of dining styles such as those specific to Eastern or non-Western traditions would have added depth and complexity to the game's design and could have enhanced its global applicability.

The findings of this study open several avenues for future research and development in the field of interactive learning for dining etiquette. One key direction for future work is expanding the sample size and demographic diversity. Future studies should include a broader range of participants from different cultural, socioeconomic, and geographical backgrounds to assess how the game can be tailored to accommodate diverse dining traditions and learning styles. In addition, future studies could investigate the long-term impact of the game on children's retention of dining etiquette and its transfer to real-world situations, explore integration of advanced technologies, such as augmented reality (AR) or artificial intelligence (AI) and game's accessibility and effectiveness for children with special needs or disabilities.

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1.08 Objavljeni znanstveni prispevek na konferenci
Published scientific conference contribution

CLIL AS A THEORETICAL CONCEPT AND RELEVANCE TO CONTEMPORARY EDUCATION

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ABSTRACT

Content and Language Integrated Learning (CLIL) is a dual-focused educational approach in which an additional language is used for the learning and teaching of both content and language. That is, in the teaching and learning process, there is a focus not only on content, and not only on language. Each is interwoven, even if the emphasis is greater on one or the other at a given time.

The term `Content and Language Integrated Learning' (CLIL) was adopted in 1994 (Marsh, Maljers and Hartiala, 2001) within the European context to describe and further design good practice as achieved in different types of school environment where teaching and learning take place in an additional language. There are two major reasons which underpin the interest in CLIL within a specific country or region. These involve reactive (responding to situations) and proactive (creating situations) responses to challenges or problems.

The forces of global change, converging technologies and adaptability to the subsequent Knowledge Age present challenges for education. And within education as a whole, they present challenges for the teaching and learning of additional languages. The paper concludes that CLIL is not exclusive to the promotion of English as a world language but is embedded in the socio- economic, political and cultural traditions of different nations. CLIL not only promotes linguistic competence, it also serves to stimulate cognitive flexibility.

***Keywords**: CLIL methodology, theoretical concept, linguistic competence, cognitive flexibility*

1 INTRODUCTION

In an increasingly interconnected and globalized world, the importance of equipping students with both subject-specific knowledge and the language skills necessary to navigate diverse, multicultural environments is paramount. As the demand for multilingualism and cross-cultural understanding grows, educational methodologies must evolve to meet these challenges. One such innovative approach is Content and Language Integrated Learning (CLIL), a dual-focused educational methodology in which an additional language is used as the medium of instruction for teaching both content and language. First introduced in Europe in the 1990s, CLIL has gained international recognition as an effective way to promote bilingualism and academic achievement simultaneously.

At its core, CLIL emphasizes the interconnection between content and language learning. Unlike traditional models where language and content are taught separately, CLIL aims to integrate the acquisition of knowledge in specific subjects with the development of language proficiency. In this way, students not only learn about specific topics, such as science, history, or geography, but also gain the linguistic tools necessary to articulate their understanding of those topics in a foreign language. This approach ensures that students are not simply learning the content of their courses but are also gaining the cognitive and linguistic flexibility necessary to thrive in an increasingly globalized world.

CLIL is grounded in the belief that content and language should be treated as interconnected elements, each influencing the other. In this way, the methodology offers significant advantages over traditional approaches by providing an immersive and engaging learning environment. Students are exposed to the additional language in authentic, meaningful contexts, which helps them retain both content knowledge and language skills more effectively. However, the balance between content and language can vary depending on the specific educational context and the needs of the learners. Sometimes, the focus may be on content mastery, while at other times, the emphasis may shift toward language acquisition. This flexibility makes CLIL adaptable to various educational settings and disciplines, from primary schools to universities.

The theoretical foundations of CLIL are shaped by the need to respond to the demands of the modern Knowledge Age, where learners are required to possess not only academic knowledge but also the ability to think critically, solve problems, and communicate effectively across cultural and linguistic boundaries. As such, CLIL does not merely seek to promote linguistic competence; it also serves to stimulate cognitive development, fostering skills such as critical thinking, problem-solving, and metacognition. These cognitive benefits extend beyond the classroom and prepare students to navigate complex, real-world challenges in their future careers.

Despite its growing popularity, the implementation of CLIL faces several challenges. These include issues related to teacher training, curriculum design, and the need for appropriate resources and support to ensure effective delivery of both content and language. Moreover, the balance between language and content learning remains a topic of ongoing debate, with some arguing that the emphasis on content may sometimes hinder language acquisition, while others maintain that linguistic development is key to a deeper understanding of content.

This paper aims to examine the role of CLIL in contemporary education, exploring its potential to enhance both language proficiency and content knowledge among students. Through a critical analysis of the CLIL methodology, this research will contribute to a deeper understanding of its practical applications, challenges, and benefits in the classroom. Specifically, the paper will investigate how CLIL can foster cognitive flexibility and linguistic competence in students, as well as the broader implications of this approach for educational practices worldwide.

The primary aim of this research is to assess the impact of the CLIL methodology on students' academic achievement and language development. In doing so, the study will address two central research questions:

1. How does the integration of content and language in CLIL impact students' cognitive and linguistic development, and to what extent does it enhance their academic performance?
2. What are the key challenges and benefits associated with implementing CLIL in educational settings, and how can these be addressed to maximize the effectiveness of the methodology?

By addressing these questions, the paper seeks to provide valuable insights into the effectiveness of CLIL as an educational approach and its potential to shape the future of language learning and content education.

2 LITERATURE

2.1 Connecting content learning and language learning

Connecting content learning and language learning is crucial in today's knowledge-driven society, particularly within organizations that prioritize progress and innovation. In these environments, the development of new knowledge and ideas is often facilitated through ongoing dialogue and collaboration. Unlike traditional forms of communication—narrative, exposition, argument, and persuasion—dialogue in Knowledge Age organizations serves a practical and dynamic purpose: solving complex problems, sharing expertise, and generating innovative solutions. The core of communication in such organizations lies not in simply conveying information but in actively participating in the creation and transformation of knowledge, making dialogue integral to both content and language learning and fostering critical thinking and collaborative problem-solving (Bereiter and Scardamalia 2005, 749–761). In this context, language learning becomes an essential tool for effective participation in problem-solving and idea generation; the more proficient individuals are in using language to express complex concepts, engage in discussions, and contribute to collective knowledge, the better equipped they are to navigate and succeed in these fast-paced environments. Thus, integrating content learning with language learning is not just a theoretical ideal but a practical necessity in the evolving landscape of modern organizations (Bereiter and Scardamalia, 2005, 749–761).

2.1.1 The content of learning

A useful starting point is to consider the content of learning. The concept of what constitutes content in a CLIL context is much more flexible than selecting a discipline from a traditional school curriculum such as geography, music, biology or physics. Whilst curricular subjects such as these might be appropriate for some CLIL programmes, contextual variables such as teacher availability, language support, age of learners and the social demands of the learning environment may mean that a different choice of content is more appropriate. In other words: what exactly is meant by "content" in CLIL will depend on the context of the learning institution—an issue already raised in previous chapters.

Content can range from the delivery of elements taken directly from a statutory national curriculum to a project based on topical issues drawing together different aspects of the curriculum (for example, the Olympic Games, global warming, ecosystems). Content in a CLIL setting could also be thematic, cross-curricular, interdisciplinary or have a focus on citizenship, for example. Themes might include issues-led investigations into climate change, carbon footprint or the Internet; cross-curricular studies might involve inquiry into health in the community, water or genocide; interdisciplinary work which encourages collaboration on a common theme whilst maintaining the integrity of each subject could, for example, lead to designing an eco-friendly house; and citizenship might focus on global issues such as race, global communication or learning across continents. CLIL, therefore, offers opportunities both within and beyond the regular curriculum to initiate and enrich learning, skill acquisition and development. The exact nature of these opportunities will depend on the extent to which the CLIL context demands an approach which is more content-led, more language-led, or both. However, the crucial point here is that, no matter whether issues concerning the content or the language are more dominant at a given point, neither must be subsumed or the interrelationship between the two ignored.

The learning of content: Synergies, scaffolding and social interaction

Identifying the type of content involved does not, however, automatically address a fundamental question: What is meant by content learning? It might be useful to start by considering some issues to do with content learning in general, before identifying specific challenges presented through using a second or additional language as the medium for that learning.

Syllabuses and programmes all have their aims and objectives, often with articulated goals and outcomes for teaching and learning. But these alone do not address the how of content learning—

only the what of content teaching. The impact of general learning theory and how individuals learn, based on work from eminent theorists such as Bruner, Vygotsky and Wood (Bigge and Shermis 1998, 89-100) do not always directly influence classroom practice.

But if CLIL is to build on potential synergies, then considerations of how effective learning is realized must be brought into the equation. In other words, CLIL demands an analysis of what is meant by effective pedagogies in different contexts. Different pedagogic approaches have been debated across continents in recent times (see Chapter 1). The dominant model in many Western societies has emphasized a transmission of knowledge where the expert (the teacher) deposits information and skills into the memory bank of the novice (the learner). This has been called a "banking model" (Freire 1972, 72) and tends to be teacher-controlled and teacher-led. Alternative, social-constructivist approaches to learning emphasize "the centrality of student experience and the importance of encouraging active student learning rather than a passive reception of knowledge" (Cummins 2005, 108). Social-constructivist learning in essence focuses on interactive, mediated and student-led learning. This kind of scenario requires social interaction between learners and teachers and scaffolded (that is, supported) learning by someone or something more "expert"—that might be the teacher, other learners or resources. When learners are able to accommodate cognitive challenge—that is, to deal with new knowledge—they are likely to be engaged in interacting with "expert" others and peers to develop their individual thinking. Vygotsky (1978) introduced the term "zone of proximal development" (ZPD) to describe the kind of learning which is always challenging yet potentially within reach of individual learners on condition that appropriate support, scaffolding and guidance are provided (p. 86). In settings shaped by social-constructivist approaches, the teacher's role involves facilitating cognitive challenge within an individual's ZPD. This involves the teacher in maintaining a balance between cognitive challenge for learners and appropriate and decreasing support as learners progress.

2.2 Cognitive Engagement in CLIL: Fostering Active Learning and Higher-Order Thinking

For content learning to be effective, students must be cognitively involved in the process. Teachers in Content and Language Integrated Learning (CLIL) need to find ways to actively engage students, helping them think critically and express their own learning. This process requires students to develop metacognitive skills, such as "learning to learn," which helps them reflect on their own progress (van Lier 1996, 98). Active learning environments, such as group work, student questioning, and problem-solving, encourage this engagement. In CLIL classrooms, students are encouraged to collaborate, utilizing each other's strengths and compensating for weaknesses. However, these skills shouldn't be left to develop on their own but should be nurtured through guidance. This includes fostering life skills, such as handling uncertainty, observational skills, and constructing knowledge through interaction with the world, underpinned by values and beliefs (van Lier 1996, 15–16). Therefore, for CLIL to promote effective learning, it must address not only the knowledge base but also the cognitive engagement of students. A report from the Queensland School Reform Longitudinal Study (1998–2000) emphasized that teachers should focus on higher-order thinking, beyond basic skills, to foster productive pedagogies (Department of Education, Queensland 2002, 1). Evidence suggested that intellectual challenge was essential for transforming information, solving problems, gaining understanding, and creating new meaning. Effective learning must not only cover the knowledge and skills outlined in the curriculum but also encourage creativity, problem-solving, and cognitive challenges. Students need to build a constantly evolving knowledge base and the skills to use it throughout their lives, including critical thinking, reasoning, making informed decisions, and responding creatively to challenges. They must become skilled in problem-solving and higher-order thinking to interpret meaning and understanding. Ultimately, for learning to be retained and accessible, students must construct their own knowledge and take responsibility for managing their learning (Nisbet 1991, 25–34).

2.3 Towards a thinking curriculum: Dimensions and processes

A "thinking curriculum" in the context of CLIL (Content and Language Integrated Learning) refers to a teaching approach that prioritizes cognitive engagement and the development of a variety of thinking and problem-solving skills in students. While content learning remains a key focus, it cannot be

separated from the necessity of fostering higher-order cognitive skills that are essential for students to navigate complex problems and think critically. Central to this idea is the integration of thinking processes that encourage not just the acquisition of knowledge, but also the active construction of knowledge. Since Bloom's original publication of his taxonomy in 1956, which identified levels of cognitive processes, the categorization of different types of thinking has evolved and generated significant academic discussion (Bloom 1956; McGuinness 1999; Krathwohl 2002, 212–214).

In 2001, Anderson and Krathwohl revisited Bloom's taxonomy, offering a revised model that introduced a "knowledge" dimension alongside the original "cognitive process" dimension. This version clarifies how thinking processes interact with knowledge construction and provides a more comprehensive framework for educators (Anderson et al. 2002, 214–216). The cognitive process dimension distinguishes lower-order thinking (remembering, understanding, applying) from higher-order thinking (analyzing, evaluating, creating). Lower-order processes build foundational knowledge, whereas higher-order processes drive deeper learning, critical thinking, and transfer to novel situations (Krathwohl 2002, 216–218).

Additionally, the knowledge dimension helps explain the different types of knowledge learners must acquire in CLIL: conceptual (concepts, principles, theories), procedural (knowing how to perform tasks or solve problems), and metacognitive (awareness of one's own learning and strategies). In CLIL settings, students learn content and simultaneously explore how language constructs and communicates that knowledge. This intertwined development makes a thinking curriculum especially relevant to CLIL. Effective CLIL instruction therefore balances cognitive processes across levels and explicitly supports development in both knowledge and metacognition, ensuring learners are not only knowledgeable but also able to think critically about what they learn (Pintrich 2002, 219–223; Krathwohl 2002, 215–216).

3 METHODOLOGY

This study was designed to assess the impact of the CLIL (Content and Language Integrated Learning) methodology on the development of language proficiency and content knowledge among university students. A quantitative approach was used, employing pre-test and post-test evaluations to measure progress over the course of one academic semester. The study involved a total of 120 students, divided into four university classes with 30 participants each, representing the academic discipline of Business English and Marketing English. The selection of participants was based on their enrollment in courses where the CLIL methodology could be effectively applied, ensuring a balanced integration of content and language learning.

The study followed a quasi-experimental design with two key phases: a pre-test conducted at the beginning of the semester (October 2024) and a post-test at the end of the first semester (in January 2025). The pre-test served to establish baseline scores for both language proficiency and content knowledge, while the post-test measured improvements after the intervention. The CLIL intervention spanned 14 weeks, during which lessons were carefully structured to integrate subject-specific content with language learning. Each lesson had a dual focus, addressing both linguistic and cognitive goals. Activities included group discussions, debates, and scenario-based problem-solving tasks, allowing students to practice academic language while engaging with course content. To support their language development, scaffolding techniques such as glossaries, sentence starters, and structured writing tasks were provided throughout the intervention.

Two primary instruments were used to collect data: pre-test and post-test assessments. These tests were designed to evaluate both language skills—listening, reading, writing, and speaking—and content knowledge through multiple-choice questions and scenario-based tasks. Each test carried a total score of 100 points, divided equally between the language and content components. Standardized scoring rubrics ensured consistency in evaluating students' performance, particularly in subjective tasks like speaking and writing. Formative assessments were also integrated throughout the semester to monitor progress and adjust teaching strategies as needed.

Data collection occurred in two phases: the pre-test in the first week of the semester (October 2024) and the post-test in the final week (January 2025). The collected data were analyzed quantitatively using descriptive statistics. Mean scores, percentage improvements, and class-specific progress

were calculated to provide a comprehensive evaluation of the methodology's effectiveness. Improvement rates were determined by comparing pre-test and post-test scores, both overall and by individual classes, to assess the impact of the CLIL intervention on students' learning outcomes.

Ethical considerations were carefully addressed in this study. Students were informed about the study's purpose and methodology, and their participation was entirely voluntary. Informed consent was obtained from all participants, and their data were anonymized to maintain confidentiality. Results were reported in aggregate form, ensuring that no individual student's performance could be identified. Additionally, the intervention was aligned with the academic curriculum, ensuring that it did not disrupt the students' regular learning process.

This methodological framework ensured a systematic and ethical evaluation of the CLIL approach, providing reliable insights into its potential to enhance both language and content learning in contemporary education.

4 EMPIRICAL PART

The scores in the Pre-Test and Post-Test were determined by evaluating students' performance on tasks designed to measure both language proficiency and content knowledge. Each section was scored out of 10 or 15 points, depending on its weight in the overall test, which totaled 100 points. The Pre-Test and Post-Test were divided into two main parts: the Language Proficiency Part (50%) and the Content Proficiency Part (50%).

The results of the CLIL intervention, measured by comparing the average pre-test and post-test scores across the four university classes, are summarized in the Class-Specific Performance and Improvement Table below.

Table 1: Class-Specific Performance and Improvement.

Class	Number of Students	Average Pre-Test Score (%)	Average Post-Test Score (%)	Improvement (%)	Key Observations
Class Of Business	30	65	82	+17	Significant improvement in **listening** and **speaking** skills, as students gained confidence using subject-specific vocabulary during oral tasks.
Class of Business	30	63	78	+15	Moderate improvement in **reading comprehension**, but some students struggled with writing tasks that required critical thinking and synthesis.
Class of Marketing	30	68	85	+17	Strong performance in both **content knowledge** and **language proficiency**, especially in problem-solving and applying learned concepts.
Class of Marketing	30	66	81	+15	Improved **content knowledge**, but language progress was slower in this class due to limited participation in oral tasks and classroom discussions.

The distribution of points and the types of tasks assessed are detailed in the Assessment Criteria Table (Table 2).

Table 2: Assessment Criteria and Weighting.

Assessment Criteria	Percentage	Description & Examples
Language Proficiency (50%)		
Listening	10%	Students listened to a short lecture or discussion and answered comprehension questions. *Example:* Identifying key points, summarizing the speaker's main argument.
Reading	10%	Students analyzed a text related to the subject matter and answered comprehension questions. *Example:* Multiple-choice or open-ended questions about the main idea, vocabulary, or inference.
Writing	15%	Students completed a writing task, such as summarizing a concept or explaining a topic in detail. *Example:* Write 150–200 words summarizing a historical event or explaining a scientific concept.
Speaking	15%	Students delivered a short oral presentation or participated in a discussion. *Example:* A 3-minute presentation on "Multinational Corporations," with peer and teacher feedback.
Content Knowledge (50%)		
Multiple-Choice Questions	20%	Focused on subject-specific content (e.g., history, science, or economics). *Example:* "Which of the following processes occurs during photosynthesis?"
Scenario-Based Problem Solving	30%	Students applied learned concepts to real-life or hypothetical situations. *Example:* "Analyze this case study and suggest three solutions based on what you've learned."

5 CONCLUSION AND DISCUSSION

The analysis of the pre-test and post-test results highlights the effectiveness of the CLIL (Content and Language Integrated Learning) methodology in improving both language proficiency and content knowledge among university students. Across the four classes, students showed an average improvement of **16%,** demonstrating that the integration of language learning with subject-specific content creates a beneficial environment for higher education learners.

Significant gains were observed in **listening** and **speaking skills,** where students became more comfortable using academic and subject-specific vocabulary in real-life and classroom contexts. Additionally, students demonstrated a **14% increase** in content knowledge, particularly in tasks requiring problem-solving and critical thinking. These results confirm that CLIL not only enhances linguistic competence but also promotes deeper cognitive engagement and the practical application of knowledge.

Class-specific findings revealed that **Class 3** experienced the most substantial improvement (+17%), attributed to higher levels of active participation and engagement in discussions and interactive activities. Conversely, **Class 2** showed moderate gains (+15%) but faced challenges in academic writing tasks, highlighting the need for targeted writing support. Similarly, in **Class 4,** limited oral participation slowed progress in speaking skills, underlining the importance of fostering active classroom involvement.

Despite these successes, the analysis also revealed some challenges. Certain students struggled to integrate complex content with language tasks, especially in writing and problem-solving. Additionally, variations in participation and engagement levels impacted the overall effectiveness of the methodology in some classes.

6 RECOMMENDATIONS

To address the challenges and build on the successes of the program, several recommendations are proposed. First, structured workshops and activities focused on **academic writing** should be

implemented to help students improve their ability to summarize, analyze, and synthesize information. Providing clear templates, rubrics, and model answers can also guide students in their writing development.

Second, increasing **interactive classroom activities** is essential to boost participation and enhance oral communication skills. Methods such as debates, role-playing, and group projects should be prioritized to foster collaborative learning. Peer-to-peer evaluations can also encourage students to actively engage and learn from one another.

Tailored feedback and support are critical for addressing individual challenges. Teachers should provide personalized feedback to students struggling with specific areas, such as writing or oral presentations, and offer supplementary resources or one-on-one mentoring to those who show slower progress.

To further strengthen the program, **scenario-based problem-solving tasks** should be incorporated regularly. These activities encourage students to apply their content knowledge and language skills to real-life situations, gradually increasing in complexity to build confidence and competence. Regular monitoring through mini-tests or quizzes can help track progress and adjust teaching methods as needed.

Finally, extending the duration of CLIL programs would allow students more time to adapt to the dual-focused approach, leading to greater mastery. Collecting additional qualitative data, such as student surveys or focus groups, can also provide insights into their experiences and help refine the methodology.

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1.08 Objavljeni znanstveni prispevek na konferenci
Published scientific conference contribution

A MULTIMODAL AI FRAMEWORK FOR LONGITUDINAL WORKPLACE MONITORING AND WELL-BEING ASSESSMENT[1]

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ABSTRACT

Monitoring employees' states at work encompasses multiple dimensions such as performance, organizational climate perception, stress levels, and mental health. Traditionally, these are evaluated through isolated data collections using standardized questionnaires, focusing on specific dimensions at discrete moments. This research proposes a framework for modeling and generating outputs, such as stress detection to prevent burnout, identification of depression precursors, mental health issues, and performance detractors, leveraging multimodal and longitudinal data. Applications of this nature remain scarce but highlight challenges, particularly in developing models applicable across varying organizational contexts, diverse populations, or temporal stages of the same individual. The methodology integrates behavioral and contextual data into a continuous monitoring system. The research aims to create standardized metrics for identifying risk factors and delivering real-time interventions to enhance work-life balance and well-being. This contributes to strategic HR decisions, aligning AI-driven interventions with contemporary workplace challenges.

Keywords: *Employee well-being, Multimodal data, Stress detection, Longitudinal analysis, Interpretable AI*

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1 INTRODUCTION

This study proposes foundational elements for a multimodal AI framework to monitor employee well-being and performance longitudinally in workplace settings. The framework aims to: (1) establish principles for integrating behavioral, physiological, and contextual data to identify risk factors such as stress and burnout; (2) outline the development of interpretable machine learning models for actionable, real-time interventions; (3) propose strategies for scalability across organizational contexts while addressing ethical and privacy considerations; and (4) support human resource management strategies that balance employee well-being with productivity. By aligning motivational theory with advanced AI technologies, this work offers a sustainable approach to workplace monitoring.

Motivation and performance are crucial to organizational success, as they influence employee engagement, productivity, and overall well-being. Self-determination theory (SDT) highlights the role of fulfilling psychological needs—autonomy, competence, and relatedness—in fostering intrinsic motivation and workplace performance (Deci, Olafsen, and Ryan 2017; Baard, Deci, and Ryan 2004). Organizations that prioritize supportive leadership and opportunities for skill development see higher employee engagement, resilience, and satisfaction (Wright, Cropanzano, and Bonett 2007; Peccei, Van De Voorde, and Van Veldhoven 2019; Van de Voorde, Paauwe, and Van Veldhoven 2012). Manager–employee interactions and participative leadership styles further strengthen employee motivation, reduce workplace stress, and align individual and organizational goals.

Digital collaboration tools such as Microsoft Teams, Slack, and Google Meet have broadened opportunities for workplace monitoring by generating vast behavioral data streams. These platforms enable organizations to analyze login hours, meeting patterns, and task completion rates, offering actionable insights into employee engagement and stress levels (Katam 2024; Hargreaves, Clarke, and Lester 2022). Additionally, these digital traces provide insights into organizational structures and employee interactions by analyzing communication patterns across channels (Yang et al. 2022).

The proliferation of these tools has generated significant "digital exhaust," comprising behavioral data that can reveal links between work habits, health, and productivity (Polzer 2022; Yang et al. 2022). AI-enabled systems can analyze this data to predict well-being and support proactive HR interventions. Leonardi (Leonardi 2021) emphasizes that remote work environments amplify the importance of such tools in improving employee performance and engagement.

Recent studies highlight the transformative potential of AI in workplace monitoring. Machine learning models have demonstrated the ability to predict productivity using physiological and behavioral data (Awada et al. 2023), while concepts like "eigenbehaviors" provide insights into workplace engagement and efficiency (Eagle and Pentland 2009). Additionally, the GLOBEM framework illustrates how AI systems can generalize behavioral predictions across diverse organizational contexts, addressing challenges such as data variability (Xu et al. 2022).

This paper builds on these insights to propose a foundational multimodal AI framework for workplace monitoring. The key contributions include:

- Aligning motivational theory with advanced AI methodologies to enhance employee well-being and performance.
- Proposing principles for interpretable AI models tailored to HR applications, offering actionable insights for organizational decision-making.
- Addressing ethical, legal, and privacy considerations in the design of continuous monitoring systems.

The following table summarizes the foundational research insights discussed in this introduction and their contributions to the framework.

Table 1: Research Foundations and Framework Contributions

Topic	Key Terms	Main Insight	Contribution to the Framework
Defining What to Observe	Workplace motivation, performance goals, organizational structures, manager–employee interactions	Clear objectives and theoretical foundations are essential for selecting relevant aspects of workplace behavior to monitor.	Ensures the framework focuses on meaningful, organizationally relevant data aligned with employee engagement and productivity goals.
AI for Extracting Insights	Machine learning, big data, enterprise resource planning (ERP) systems, employee behavior patterns	AI can uncover patterns and generate actionable insights from large organizational datasets.	Supports advanced analytics to identify key predictors and trends, enabling data-driven HR strategies.
Advancing Multimodal Data Analysis	Multimodal workplace analytics (MWA), sensors, digital and physical workplace settings, employee interactions	Multimodal data provides a holistic view of workplace behaviors across diverse contexts.	Expands the framework's capacity to integrate diverse data streams, enriching insights into employee engagement and well-being.
Using Longitudinal Data	Longitudinal studies, stress, well-being, data integration, privacy concerns	Longitudinal data links changes in performance and well-being over time, addressing ethical and technical challenges.	Provides temporal depth for tracking trends and tailoring interventions while ensuring ethical compliance.

The subsequent sections detail the proposed framework, its methodological underpinnings, and its application in corporate environments.

2 METHODOLOGY

Conceptual frameworks are invaluable in corporate research and strategy, offering structured yet flexible networks of interconnected concepts to analyze and address complex workplace phenomena (Jabareen 2009). They play critical roles in supporting various stages of organizational decision-making, from problem identification to solution implementation. Visualization techniques, such as concept maps and network graphs (e.g., minimum spanning trees), help elucidate relationships between key concepts, emphasizing the hierarchical structures that influence employee performance, well-being, and engagement (Stockwell, Smith, and Wiles 2009). By transforming these frameworks into graph-based data models, businesses can enhance reasoning, simulations, and validation efforts (Ślusarczyk 2011).

This approach underpins the development of a multimodal longitudinal framework for workplace data, addressing the complexities of integrating diverse data sources and ensuring temporal coherence. The proposed framework builds on these methodologies to achieve the following objectives:

2.1 Defining Entities Based on Organizational Theories

Drawing from the reviewed motivational and organizational theories, the framework will define core entities such as employee behaviors, workplace goals, leadership strategies, and well-being metrics. These entities provide the foundation for structuring data and modeling relationships within corporate environments.

For example, intrinsic and extrinsic motivational factors are linked to employee engagement, while leadership styles influence team dynamics and individual performance patterns. Organizational goals, such as productivity and retention, are also incorporated as essential components.

2.2 Establishing Layers for Multimodal Data Processing

The framework incorporates layers dedicated to processing raw multimodal data, such as text-based communication logs, physiological signals from wearables, collaboration platform usage metrics, and social interaction dynamics. These layers transform raw inputs into structured datasets that align with predefined organizational entities, enabling the creation of comprehensive employee profiles indexed by metrics such as engagement, stress levels, and performance.

2.3 Integrating Machine Learning for Multimodal Data Processing

Advanced machine learning techniques, including deep learning architectures and unsupervised clustering algorithms, address the complexities of integrating diverse data streams. For instance, recurrent neural networks (RNNs) process sequential data like project timelines and task completion rates, while convolutional neural networks (CNNs) analyze facial expressions and physical posture data captured during meetings.

2.4 Structuring Relationships Between Entities Over Time

Graph-based visualizations and ontology-driven designs model relationships between entities, such as employee well-being, productivity, and leadership influence, over time. This structure facilitates the development of longitudinal datasets that capture changes in workplace dynamics and employee outcomes across various timeframes.

2.5 Extracting Actionable Insights Using Advanced AI Techniques

Sophisticated AI techniques, such as graph neural networks (GNNs) and federated learning, integrate data from different modalities to extract actionable insights. These insights enable predictions and inferences about employee well-being and productivity, supporting real-time interventions that address organizational challenges.

By integrating conceptual frameworks with graph-based visualizations, this methodology provides a robust structure for analyzing workplace data. For example, the framework can predict at-risk employees by linking engagement data with emotional states or enhance managerial effectiveness by correlating leadership strategies with employee outcomes. These innovations have the potential to transform human resources analytics, providing insights that drive sustainable interventions and foster a more productive and engaged workforce.

3 THE FRAMEWORK

The proposed framework aims to address three interconnected challenges in designing, implementing, and utilizing systems for monitoring employee performance, well-being, and workplace dynamics:

- **Technology-Driven vs. Objective-Oriented Design:** Many existing workplace monitoring tools focus on available technologies rather than aligning with meaningful organizational objectives. This framework prioritizes a goal-driven approach, ensuring that technological solutions support workplace engagement, productivity, and well-being.
- **Data Storage vs. Actionable Insights:** Organizations often collect vast amounts of employee data but struggle to translate them into meaningful insights. The proposed framework bridges this gap by structuring data processing layers that translate multimodal information into strategic decision-making tools.
- **Workplace Productivity vs. Employee Well-Being:** There is often a tension between optimizing employee performance and maintaining a sustainable work environment. This framework integrates AI-driven insights with human-centric workplace policies, aiming to balance well-being with corporate goals.

3.1 Framework Structure

The framework is structured into three hierarchical levels:

Level 1: Relevant Information Layer

This layer ensures that all collected data—whether for real-time monitoring, longitudinal analysis, or ad-hoc workplace interventions—supports informed decision-making. The information is structured into HR-friendly dashboards and AI-assisted recommendations, ensuring accessibility for managers and executives.

Level 2: Data Processing and Repository Layer

Systematized data repositories store and process employee behavioral, physiological, and contextual data. This layer incorporates robust privacy measures, including encryption and anonymization, to ensure compliance with workplace ethics and data protection laws.

Level 3: Workplace Interaction and Sensor Layer

This layer consists of various data collection mechanisms, including:

- *Workplace Behavior Sensors:* Activity tracking logs from enterprise tools (e.g., Microsoft Teams, Slack, Zoom, Google Meet) capturing digital communication patterns.
- *Physiological Wearables:* Employee well-being data from devices tracking heart rate, stress levels, and sleep quality.
- *AI-Driven Sentiment Analysis:* Real-time text and speech analysis from workplace interactions to assess employee sentiment and engagement levels.

The framework operates through a set of AI-enabled components, as defined below:

Sensor: Any workplace element that collects raw data at Level 3, including:

- Communication logs from collaboration platforms.
- Wearable sensor data capturing stress, fatigue, and overall well-being.
- Performance tracking through project management tools (e.g., Monday.com, Asana, Trello).

AI-Enabled Data Treatment Agent (AIDTA): Autonomous AI models that process raw data, apply privacy filters, and ensure noise reduction. These agents convert unstructured data into structured datasets while discarding non-essential information.

Systematic Databases (SDB): Secure repositories storing continuous workplace data, ensuring compliance with corporate policies and ethical AI principles.

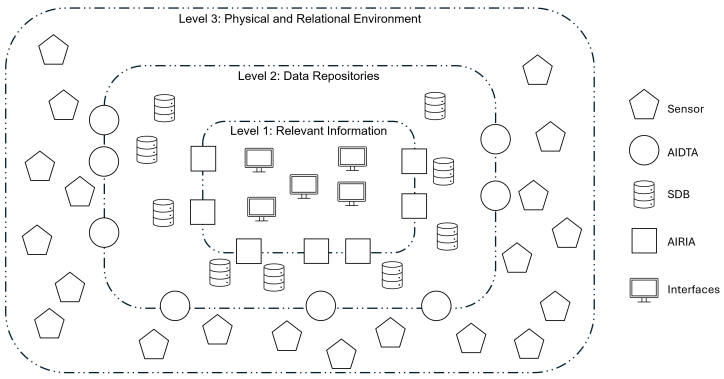
AI-Enabled Relevant Information Agent (AIRIA): Advanced AI models that synthesize systematic databases into workplace-relevant insights, including:

- Personalized wellness recommendations for employees.
- Workload optimization based on team collaboration patterns.
- Real-time alerts for burnout risk detection.

Interfaces: Predefined dashboards for HR professionals, team leaders, and executives, presenting visualizations and actionable insights from AI-generated reports.

By integrating these elements, the framework provides a structured, ethically responsible, and AI-enhanced approach to monitoring employee well-being and productivity in modern corporate environments. The following diagram visually represents the proposed framework, illustrating the interrelation between its three levels: relevant information, data repositories, and the physical and relational environment. Each level is supported by defined artifact types such as sensors, AI-enabled data treatment agents (AIDTAs), systematic databases (SDBs), AI-enabled relevant information agents (AIRIA), and user interfaces. This hierarchical representation underscores the flow of data and information, highlighting how raw inputs from sensors are processed into actionable insights through a structured and scalable architecture.

Figure 1: Visual representation of the multimodal AI framework for workplace monitoring, showcasing the three levels: relevant information, data repositories, and the physical and relational environment. Artifact types such as sensors, AIDTAs, SDBs, AIRIAs, and interfaces are also depicted.



Considering this structure in the design and planning of a system for monitoring employee performance and well-being ensures that all interdependencies between the defined levels are addressed, avoiding imbalances in the system's design. For example, if a system is primarily driven by the adoption of a new technology for collecting employee behavior data in the workplace through digital tools, there is a risk of focusing too heavily on computational outputs while neglecting organizational objectives or inadvertently exposing sensitive employee data.

3.2 Backward Goal-Oriented, Liability-Controlling, and Cost-Effective Design

The proposed framework adopts a backward goal-oriented approach, aligning all system components and processes with clearly defined organizational objectives and outcomes. This ensures that the system is not driven solely by available technologies or methods but is purpose-built to address specific goals related to employee performance, well-being, and productivity. By working backward from these objectives, the framework emphasizes relevance, practicality, and alignment with organizational mission and strategy.

3.2.1 Backward Goal-Oriented Design

Definition: This design approach starts by identifying the ultimate goals of the system (e.g., enhanced employee engagement, reduced turnover rates, improved well-being) and then works backward to define the necessary processes, data sources, and technologies.

Implementation:

- Entities, variables, and relationships within the framework are defined based on their contribution to achieving corporate and human resource management goals.
- Sensors and data processing agents (e.g., AIDTAs) are configured to capture only the data necessary for these goals, avoiding unnecessary complexity and data overload.

3.2.2 Liability Controlling

Data Privacy and Ethical Safeguards:

- The framework incorporates robust mechanisms for privacy protection, ethical compliance, and liability reduction, ensuring adherence to data protection regulations and ethical standards.
- Sensitive data is anonymized, and unnecessary data is discarded at early stages, reducing risks of misuse or unintended exposure.

Accountability:

- Systematic data logging and transparent operations ensure traceability of decisions, enabling stakeholders to understand how insights are derived and manage organizational liability effectively.

3.2.3 Cost-Effectiveness

Optimized Resource Allocation:

- By focusing on backward design, the framework eliminates redundant processes and avoids over-engineering. Resources are allocated only to technologies and methods directly contributing to system objectives.

Long-Term Financial Sustainability:

- The framework balances short-term cost savings with long-term economic benefits. For example, it demonstrates how improved employee outcomes (e.g., higher engagement and productivity) contribute to financial advantages for the organization.
- AI-enabled data agents (AIDTAs and AIRIAs) automate labor-intensive tasks such as data analysis, increasing operational efficiency while reducing costs.

3.3 Case Example: Workplace Monitoring via Digital Tools

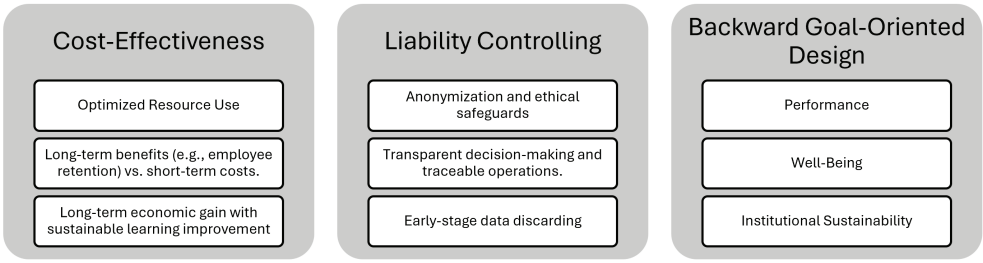
When implementing a system to monitor workplace behavior using digital tools:

1. *Goal Alignment:* Data collection is tailored to organizational objectives, such as identifying patterns in employee engagement rather than focusing on computational features unrelated to performance outcomes.

2. *Liability Control:* Sensitive data, such as activity logs or communication patterns, is anonymized at the point of collection, and ethical guidelines are strictly enforced to prevent misuse.
3. *Cost-Effectiveness:* The system avoids over-reliance on costly proprietary technologies by employing scalable AI agents to transform digital data into actionable insights.

The backward goal-oriented, liability-controlling, and cost-effective design ensures that the framework is purposeful, ethical, and economically viable. By prioritizing outcomes, safeguarding employee privacy, and optimizing resource use, the framework supports sustainable and impactful monitoring systems in corporate environments.

Figure 2: Design premises summarizing key points for framework implementation.



4 DISCUSSION AND CONCLUSIONS

The proposed framework advances the field of workplace monitoring by integrating multimodal data streams and aligning its design with organizational objectives. It addresses critical challenges in data collection, ethical management, and the generation of actionable insights. By incorporating AI-enabled agents, the framework facilitates the processing of complex multimodal and longitudinal data, ensuring a scalable and systematic approach adaptable to diverse corporate environments. This integration links employee well-being and performance metrics to organizational outcomes, laying the foundation for workplace strategies aligned with long-term economic and operational goals.

Despite its potential, the framework faces challenges that must be addressed to ensure successful implementation. Legal and regulatory compliance is critical, as organizations must navigate labor laws, union restrictions, and platform-specific privacy requirements. Potential risks include employee resistance to monitoring, workplace disputes, and the misuse of data, which could result in unintended legal or ethical consequences. Robust governance mechanisms, transparent communication, and adherence to established legal frameworks are essential for fostering trust and mitigating these risks.

Ethical considerations also play a pivotal role in the framework's implementation. Ensuring employee consent and transparency is crucial, requiring clear communication about data collection mechanisms and the provision of controls over personal information. Regular audits and adjustments to machine learning models are necessary to mitigate potential biases related to gender, ethnicity, or job roles. Scalability must also be prioritized, ensuring adaptability across diverse industries, corporate cultures, and operational models.

Additionally, future iterations of this framework should consider a deeper integration of the employee perspective. While the current design emphasizes organizational goals, future work should focus on empowering employees by addressing their specific needs and providing tools to support their decision-making processes. This could include personalized recommendations for workload management, stress reduction, and skill development opportunities, further enhancing the framework's relevance and value to employees.

Recent technological advancements have enhanced the feasibility of implementing sophisticated monitoring systems. Innovations in artificial intelligence, such as large language models (LLMs) and retrieval-augmented generation (RAG), have made these systems more accessible and cost-effective. Furthermore, no-code and low-code development tools simplify the creation of user-friendly interfaces, while the proliferation of IoT devices enhances the collection of relevant workplace data. These developments position the framework as a practical and scalable solution for organizations seeking to integrate well-being and performance objectives.

To fully realize the potential of this framework, future research should focus on validating its scalability and adaptability across varied organizational settings. Pilot studies are essential for testing functionality and ensuring alignment with organizational goals, particularly in industries with diverse operational dynamics. Further exploration of domain-specific AI techniques is necessary to enhance data processing and deliver tailored solutions for employers and employees alike.

Ultimately, the framework aims to establish sustainable strategies for monitoring and enhancing workplace well-being and productivity. By addressing scalability, legal compliance, ethical concerns, and the inclusion of employee-centric features, the proposed framework holds the potential to transform workplace monitoring into a tool that not only drives organizational success but also empowers employees, fostering a supportive and balanced work environment.

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1.08 Objavljeni znanstveni prispevek na konferenci
Published scientific conference contribution

THE IMPACT OF A MENTAL HEALTH PROMOTION PROGRAMME ON DEPRESSION AWARENESS[1]

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ABSTRACT

Mood disorders are widespread, with anxiety and depression predominating. Depression affects thirteen percent of the population and is a major public health problem. In 2017, Slovenia launched a mental health promotion programme called Improving Literacy on Mood Disorders (OMRA). Built on the concept of mental health literacy (MHL), the programme provides psychoeducational workshops and an online platform designed to enhance MHL, with a particular emphasis on mood disorders. We examined the level of knowledge about depression among the 1,485 participants of the online and on-site workshops, who were asked to complete a questionnaire on the characteristics and treatment of depression before and after the implementation of the psychoeducational topic set on depression. The results show that the average knowledge about depression after the OMRA workshop was 25.5% ($p<0.001$) higher than before the workshop. Of the socio-demographic variables - gender, age, place of residence, education and employment status- the gender variable had the greatest impact on knowledge of depression, with women responding better on average than men ($p=0.024$). The OMRA programme will continue to address the social and economic burden of mental disorders by improving access to information and reducing the stigma associated with mental health.

Keywords: *Mental health literacy, Mood disorders, Depression, OMRA programme*

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1 INTRODUCTION

A recent Eurobarometer survey by Eurobarometer (2023) confirms that almost half of the EU population (46%) has suffered from emotional or psychosocial problems in the last year, with depression and anxiety disorders predominating (European Commission 2023). Depression as one of the most common mental disorders is often associated with considerable negative consequences. According to the Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) 2019, depressive disorders account for the highest proportion of DALYs for mental illness (37.3 %), followed by anxiety disorders (22.9 %). These disorders often occur together and increase both the overall burden and severity of the illness (Penninx et al. 2011). Although evidence-based treatments such as psychotherapy and pharmacotherapy are available, treatment is still rarely utilised (Kamenov et al. 2017) which further emphasises the need for prevention strategies and improved early diagnosis and intervention.

Despite their high prevalence, mental disorders often go unrecognised. Research shows that there is a significant gap in the appropriate treatment of those who seek professional help (Johnson et al. 2020). The decision to seek help is also influenced by several factors. One key factor is recognition – whether a person perceives their problem as a mental disorder. Studies show that a significant proportion of the public do not recognise mental disorders (Hendersonm et al. 2013). Many equate these disorders with psychosocial distress, stress or personal vulnerability rather than a legitimate health problem (Altweck et al. 2015; Lauber et al. 2003). This perception influences help-seeking behaviour, interest in treatment and belief in its effectiveness (Amy et al. 2014).

Raising awareness and educating the public about mental disorders and their effects is most effectively achieved through the concept of Mental Health Literacy (MHL) (Kutcher et al. 2016). MHL refers to a set of cognitive and social skills that help individuals to maintain good mental health, understand mental disorders and their treatments, reduce stigma, recognise when and where to seek help, develop strategies to improve mental health care and support self-care (Jorm 2012). Recent studies are increasingly focussing on the concept of MHL competence. Research reveals that higher MHL can reduce the risk of depression and anxiety by helping people avoid unhealthy behaviours that contribute to mental health problems (Zhong et al. 2024). However, studies suggest that MHL is insufficient worldwide (Dang et al. 2020) and poor MHL may increase the risk of depression and hinder effective mental health management (Magallón-Botaya et al. 2022). Recently, specific tools are being rapidly developed to assess knowledge and understanding of specific mental disorders, e.g. knowledge of anxiety (Furnham and Lousley 2013), depression (Wei et al. 2017) and schizophrenia (Loureiro et al. 2015).

To improve MHL, psychoeducation has proven to be a highly effective approach (Salazar de Pablo et al. 2020). As a specialised form of education, it is primarily aimed at helping people with mental disorders to develop a deeper understanding of their mental health problems. In addition, patients and their families are taught practical strategies to deal with symptoms, improve coping skills and navigate the challenges of mental disorders (Walsh 2009).

2 PURPOSE AND GOALS

In 2017, we launched in Slovenia a new mental health promotion and prevention programme, OMRA (acronym: "Increasing Mental Health Literacy to Manage Mood Disorders"), in a format and with a content that was not previously established in Slovenia (Šprah 2019). The programme was based on the MHL concept, with the central aim of improving literacy about mood disorders (depression, anxiety disorders, bipolar disorder) among the general public. Various tools and approaches were developed for this purpose (www.omra.si). One of the activities was the implementation of workshops on recognising and solving problems related to stress, depression, anxiety and other mental disorders using a psychoeducational approach. The workshops were conducted both on-site and online.

The aim of the present study was to examine participants' levels of depression literacy before and after attending the workshops and to determine whether selected socio-demographic variables also influence levels of depression literacy. The main hypothesis of the study was that participation in a psychoeducational workshop on depression would increase the participants' level of depression literacy.

3 METHODS

3.1 Description of the study sample

The study involved participants from 58 on-site workshops and 35 online workshops on the topic of "Stress causes distress, empower yourself!", which took place between October 2018 and March 2024. Of the 2,152 workshop participants in total, 1,485 were included in the study. Those who submitted incomplete or invalid questionnaires or did not complete the questionnaire at all were excluded from the study. More detailed socio-demographic characteristics of the participants who took part in the study of the impact of the workshops on depression literacy are shown in Table 1.

3.2 Instruments and methods for data collection

The Depression Literacy Questionnaire (D-lit; Australian National University, National Institute for Mental Health Research) (Griffiths et al. 2004; Gulliver et al. 2012), an established questionnaire in this field, was used to assess depression literacy. The questionnaire has good psychometric properties; internal consistency = 0.70; test-retest reliability r = 0.71, $p = 0.02$. It was translated into Slovenian for use in the OMRA workshops. The D-lit questionnaire consists of 22 statements about depression and its treatment. For each statement, participants ticked TRUE if they thought the statement was true, or FALSE if they thought the statement was false. In the D-lit questionnaire, we also introduced a "DO NOT KNOW" response category if participants had no opinion on the statement or did not know the answer. This was to avoid forced choice of answers and guessing in cases where respondents were unsure of their answer. Correct answers were scored with one point, incorrect answers and not knowing were scored with zero points. The highest total score on the questionnaire was 22 points and the lowest zero points.

When registering for the OMRA workshop, participants also signed a voluntary informed consent that they would take part in the study. The research protocol was approved by the Commission of the Republic of Slovenia for Medical Ethics (No. 0120-95).

Before and after the 60-minute OMRA psychoeducation workshop on depression, participants in the online/on-site workshops were asked to complete a questionnaire on depression literacy (D-lit). In the field workshop they received a printed questionnaire, while in the online workshop they received a link to the online questionnaire on 1KA. The first group of questions in the questionnaire related to basic socio-demographic information (gender, age, education, place of residence, marital status), followed by D-lit items.

3.3 Data collection and statistical analysis

The questionnaires were completed anonymously. The data was transferred to the corresponding database. The statistical processing of the data was carried out using the software package IBM SPSS Statistics 22.

We checked whether there was a significant difference between the data collected with the questionnaires in the on-site workshops and the data from the online workshops. We found that the proportion of participants who answered the D-lit questionnaire correctly after the workshops was comparable, as the differences were not statistically significant (Mann-Whitney U test: $p < 0.05$), suggesting that the content of the workshops is appropriately designed and the effects are comparable regardless of how the workshops are conducted. Therefore, we analysed the impact of the workshops on a pooled sample of on-site and online workshops (N = 1,485).

The internal consistency coefficient (α) of the D-lit questionnaire was 0.83. As the questionnaire data deviated statistically significantly from a normal distribution (Kolmogorov-Smirnov test; $p < 0.01$), non-parametric statistical tests were used in the following data analysis. The Wilcoxon Signed Ranks Test was used to test the effect of the workshops on depression literacy, and the Kruskal-Wallis test and Mann-Whitney U test were used to test the association between the D-lit questionnaire scores and selected socio-demographic variables.

4 RESULTS

4.1 Sociodemographic characteristics of the study participants

Of the 2,152 people who took part in the workshops, 69 % were included in the analysis of the impact of the workshops. Participants who submitted incomplete, invalid or no questionnaires were excluded from the study. The detailed socio-demographic characteristics of the study sample are listed in Table 1.

Table 1: Sociodemographic characteristics of the study participants (N = 1,485).

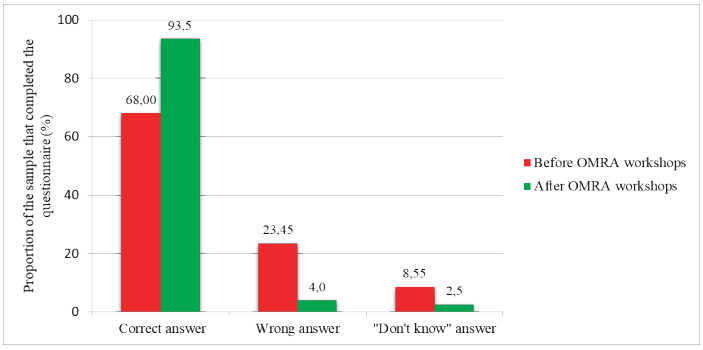
Gender (%)	Age (Mean age ± SD)	Place of residence (%)	Education (%)	Employment status (%)
Female: 87.9	M=44.27 (SD±12.12)	Urban: 48.6	Primary school or less: 2.5	Student: 3.8
Male: 12.1	M=42.70 (SD±10.95)	Rural: 51.2	Shorter school education: 0.5	Employed: 79
			Vocational school: 4.5	Not employed: 10.6
			Secondary school: 15.5	Retired: 6.6
			Higher education: 12.3	
			Faculty, university: 54.3	
			Master's or doctorate: 10.3	

The study sample was dominated by women. The age structure was similar for both genders, with an average age of over 40. In terms of place of residence, about half of the participants came from an urban environment and were educated at a faculty or university level. 79 % of the participants were employed.

4.2 Impact of the OMRA workshops on depression literacy level

The level of depression literacy was assessed in 1,485 participants of the OMRA workshops using the D-lit questionnaire before and after the OMRA workshops. The results showed that the depression literacy level after the workshops was significantly higher than before the workshops (Wilcoxon Signed Ranks Test; Z = 25,580, *p<0.001*). The proportion of participants who achieved a higher score after the workshop increased by 25.5%, and the proportion of participants who gave a wrong or 'don't know' answer significantly decreased (Figure 1).

Figure 1: Comparison of the proportions of correct, wrong and "don't know" answers on the Depression Literacy Questionnaire (D-lit) before and after the OMRA workshops.



In order to check which items were most frequently ticked incorrectly by the study participants before the workshops, we also analysed the answers to each item on the questionnaire (Table 2). The proportion of people who gave the correct answer for the same items increased after the workshops. The most outstanding items with over 40 % incorrect answers before the workshops are listed in Table 2. The most outstanding item was "Clinical psychologists can prescribe antidepressants", for which the proportion of wrong answers decreased by 39.1 % after the workshops.

Table 2: Presentation of the items of the D-lit questionnaire that were most frequently answered wrong or with "don't know" by the study participants before the psychoeducation workshops.

Questionnaire (D-lit) items	Proportion of the sample with the wrong answer BEFORE the workshops take place (%)	Proportion of the sample with the wrong answer AFTER the workshops take place (%)	Difference in the proportion of wrong answers BEFORE and AFTER the workshops (%)
Counselling is as effective as cognitive behavioural therapy for depression.	67.6	34.4	33.2
Clinical psychologists can prescribe antidepressants.	65.4	26.3	39.1
Many treatments for depression are more effective than antidepressants.	50	34.6	15.4
Moderate depression disrupts a person's life as much as multiple sclerosis or deafness.	46.2	31.2	15
People with depression often speak in a rambling and disjointed way.	42.1	16.7	25.4
Cognitive behavioural therapy is as effective as antidepressants for mild to moderate depression.	43.3	19.6	23.7

4.3 Effect of socio-demographic variables on the level of depression literacy

The results of the data analysis showed that gender had a significant influence on the questionnaire scores, with women having a higher level of depression literacy compared to men (Mann-Whitney U Test, $p = 0.024$).

Age and place of residence had no significant influence on the level of depression literacy (Kruskal-Wallis Test; $p = 0.306$; $p = 0.451$). The level of education also does not appear to be a significant factor influencing the overall level of depression literacy (Kruskal-Wallis Test, $p = 0.075$). However, when comparing specific educational categories, participants with a university degree were found to have a higher level of depression literacy than participants with a primary school degree ($p = 0.038$) or a shorter school education ($p = 0.043$). Although overall employment status had no significant effect on level of depression literacy ($p = 0.115$), comparisons between status groups showed that employed participants on average had higher level of depression literacy than students ($p = 0.018$).

5 DISCUSSION

The aim of the present study was to investigate the effects of psychoeducation workshops on depression literacy and to determine which sociodemographic variables might be associated with higher depression literacy. The study was motivated by data showing an increase in mental health problems in virtually all developed countries, and consequently the growing importance of mental health promotion and mental disorder prevention interventions (Guerrero et al. 2024), which is also promoted by the World Health Organisation in the "Mental Health Action Plan 2013-2030" (WHO 2021). The burden of mental disorders is considerable at both a societal and economic level. It is estimated that the cumulative global impact of mental disorders in terms of lost economic output between 2011 and 2030 is USD 16.3 trillion (World Economic Forum, 2011). People with mental disorders are disproportionately affected by disability and mortality (Olfson et al. 2015). For example, people with major depression and schizophrenia have a 40 % to 60 % higher risk of dying prematurely from physical health problems such as cancer, cardiovascular disease, diabetes and HIV infection, as well as suicide, than the general population. Depressive disorders, along with anxiety, are the most common mental disorders in modern society (Herrman et al. 2019), and depression alone accounts for 4.3 % of the global burden of disease and is one of the largest single causes of disability in the world (11 % of all disability-adjusted life years worldwide).

However, of all chronic, non-communicable diseases, mental disorders are those about which there are the most different views and beliefs among the lay and professional public. There is often prej-

udice and misinformation, which also has a negative impact on help-seeking (Thornicroft et al. 2026). Research shows that around half of people who need treatment for mental health problems do not seek professional help. The most common reasons are denial, lack of awareness and stigmatisation (Andrade et al. 2014). Despite the heavy burden that mental disorders place on individuals, the economy and society, it is possible to at least mitigate the situation by recognising and acting early. Researchers report various intervention modalities that can positively influence the level of information about mental health problems and the appropriate utilisation of professional help (Magallón-Botaya et al. 2023), based on the construct of MHL (Jorm 2012).

In the present study, we also used the MHL model to develop an intervention to promote depression literacy using the OMRA psychoeducational workshops (Šprah 2022). We used a well-established depression literacy questionnaire (Griffiths et al. 2004; Gulliver et al. 2012). In the present study, we included a sample of OMRA workshop participants who attended either an online or an on-site workshop between October 2018 and March 2024 (N = 2,152). 1,485 workshop participants were included in the data analysis. The sample dropout (32 %) was due to the inclusion criteria of the study, where we included only D-lit questionnaires that were correctly completed, with no missing responses and where participants had given their informed consent. Unfortunately, the sample structure was biased in several ways, as more women than men participated in the workshops, more than half of the participants had a university degree and were regularly employed (79 %). This is consistent with some research findings suggesting that women are more likely to participate in mental health promotion activities than men. This trend is influenced by various factors, including social support networks, gender roles and societal expectations (Johansen et al. 2021; Comacchio et al. 2022). Research also shows that people with higher levels of education are more likely to engage in preventive health activities (Raghupathi and Raghupathi 2020).

In our study, we tested the hypothesis that OMRA psychoeducation workshops on depression (based on the MHL construct) have an impact on the level of depression literacy of workshop participants. The hypothesis can be accepted as the results showed that the level of depression literacy after the workshops was 25.5 % higher than before the workshops. Considering that the Slovenian version of the D-lit questionnaire has comparable characteristics ($\alpha = 0.83$) to the original version of the D-lit ($\alpha = 0.7$) and that a relatively large sample was included in the study, it can be concluded that the results of the study are sufficiently reliable and confirm the effectiveness of the OMRA workshops in terms of raising awareness of the characteristics of depression and the effects of treatment. Studies investigating the effects of different interventions on changes in MHL levels do not always provide clear results, not least because the interventions vary widely in design and content, as do the tools used to monitor their effects. However, there is a prevailing trend from the study findings that knowledge of certain mental disorders increases following interventions to manage mental health problems (Brijnath et al. 2016; Pérez-Flores and Cabassa 2021). For example, Taylor-Rodgers and Batterham (2014) reported that knowledge about anxiety increased after an online psychoeducational intervention, while the psychoeducational intervention had no significant effect on knowledge about depression. A meta-analysis of a widely used Australian Mental Health First Aid Training programme (Morgan et al. 2018) found that participants in this programme had a significant increase in MHL.

The results of our study also reveal that the treatment of depression is still an area in which there are many prejudices and also poor knowledge about the characteristics of the individual therapeutic interventions. The individual responses suggest that the public is still not well informed about antidepressants and other approaches to treating depression. This is particularly evident in some of the items on the D-lit questionnaire: before the workshop, over 60 % of participants thought that counselling is more effective than cognitive behavioural therapy and that clinical psychologists can prescribe antidepressants, and 50 % of participants thought that many treatments for depression are more effective than antidepressants. After the workshops, the proportion of correct answers to these items increased to an average of 30 % of the sample.

In our study, we also investigated whether the effect of psychoeducation workshops on depression is influenced by sociodemographic variables. The results showed that gender was most strongly associated with the level of depression literacy, with women having a higher level of depression literacy in compare to men. Educational level and employment status generally did not appear to have a significant effect on level of depression literacy. However, in the post-hoc analysis, participants with

a university degree were found to have a higher level of depression literacy than participants with a primary school degree and a shorter school education. Comparisons between status groups showed that, on average, employed participants had higher depression literacy than students. The results of our study are consistent with several other studies in which gender, education and employment status have been associated with higher levels of MHL. Studies have found that women generally have higher MHL than men. This disparity could be due to societal norms that encourage women to be more open with their feelings and seek help, while men may be stigmatised for expressing their vulnerability (Blom et al. 2024). A higher level of education is associated with better MHL. Educated people are more likely to recognise the symptoms of mental disorders and know the importance of seeking professional help (Burger and Strassmann Rocha 2024). Research shows that people with a stable employment relationship tend to have higher health literacy levels. This suggests that employment status, in conjunction with income and education, plays a crucial role in determining the level of health literacy (Svendsen et al. 2020).

The results of the present study are in line with comparable international studies in this field, but it is proper to point out some limitations that could also influence the nature of the results. Firstly, the depression literacy tool used is not standardised for use in Slovenia, so certain items may have led to an inconsistent understanding of their content and consequently to biased responses from participants. In addition, the sample on which the survey was conducted contains certain biases, such as the predominance of women, the predominance of university graduates and the high proportion of participants with regular employment status. The psychoeducational workshops were conducted both on-site and online. The statistical analysis showed that there were no statistically significant differences in depression literacy between the two formats. However, we cannot completely rule out the possibility that participants in the online workshops "cheated" by not completing the questionnaires themselves, or that they were connected to the online workshop but did not follow the content. The online workshops showed that they were mainly attended by people who have digital skills, have access to the internet and are predominantly under 50 years old.

6 CONCLUSION

The present study investigated the effects of OMRA psychoeducation workshops on depression literacy and examined the relationship between socio-demographic variables and levels of depression literacy. The results confirm that participation in the workshops significantly improved participants' understanding of depression, with an overall increase in depression literacy of 25.5 after the intervention. These results suggest that structured psychoeducation based on the Mental Health Literacy (MHL) model may be an effective strategy for improving public knowledge about depression and its treatment.

The study also shows that there are still misconceptions about the treatment of depression. Prior to the workshops, a significant proportion of participants had misconceptions about the effectiveness of therapeutic interventions and the role of clinical psychologists in prescribing medication. Although the workshops led to an increase in correct responses, these misconceptions remain an important area for targeted mental health education.

In terms of socio-demographic influences, the study found that gender was the most important factor associated with depression literacy, with women showing higher level of knowledge than men. While education and employment status did not show a strong overall effect, a post-hoc analysis revealed that university graduates had higher levels of depression literacy than those with lower levels of education, and employed participants had higher levels of literacy than students. These findings are consistent with previous studies suggesting that women are more engaged in mental health and that those with higher levels of education or stable employment tend to have better access to health-related information.

Overall, the results of our study contribute to the growing body of research supporting the effectiveness of psychoeducation in improving mental health literacy. Future interventions should aim to better reach underrepresented groups, address persistent misconceptions about treatment, and further investigate how different sociodemographic factors influence mental health literacy over time.

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1.08 Objavljeni znanstveni prispevek na konferenci
Published scientific conference contribution

THE INFLUENCE OF SOCIAL MEDIA USAGE AND ONLINE BEHAVIOUR ON ATTITUDES TOWARD ARTIFICIAL INTELLIGENCE

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ABSTRACT

As AI technologies become more present in everyday life, yet little is known about the psychological factors influencing public perceptions in developing countries. This study examines the relationship between social media usage and attitudes toward artificial intelligence (AI) among participants from various cities in Albania. The sample consisted of 250 participants (205 females and 45 males), aged 18 to 50 years, selected through non-probability sampling with online administration. The AI Attitude Scale (AIAS-4), developed by Grassini (2023), was employed to assess attitudes toward AI and their association with patterns of internet usage. The results revealed no significant differences in AI attitudes based on gender or age group. However, time spent online emerged as a significant factor, with participants spending over six hours daily on the internet demonstrating the most positive attitudes toward AI. Furthermore, the type of online activity influenced perceptions: individuals using the internet for gaming displayed more favourable attitudes compared to those engaging in erotic content, who exhibited the least positive views. These findings contribute to shed light on the influence of social media and online behaviours on AI perceptions, offering valuable insights into how specific usage patterns shape attitudes toward AI. The study highlights the importance of understanding these dynamics to inform the development and integration of AI technologies in various domains.

Keywords: *Artificial intelligence, Social media usage, AI attitudes, Psychological factors.*

1 INTRODUCTION

Artificial intelligence (AI) is reshaping more and more aspects of modern society, driving innovations in healthcare, education, communication, and entertainment. As this transformative technology becomes an integral part of everyday life, understanding the factors that influence public attitudes toward AI is paramount. While AI holds the promise of simplifying processes, increasing efficiency, and solving complex problems, its rapid advancement has also raised concerns about ethics, privacy, and job displacement (Brynjolfsson and McAfee 2014). These diverse perceptions underscore the importance of investigating the psychological, social, and cultural dimensions that shape attitudes toward AI. Social media has emerged as a powerful tool for disseminating information and shaping opinion in the digital age. Platforms such as Facebook, Instagram, Twitter, and TikTok not only facilitate global connectivity, but also play a crucial role in shaping users' perceptions of technological advances, including AI (Van Dijck 2013). The type and frequency of online interactions often influence how individuals perceive emerging technologies. For example, exposure to AI-related content through educational and professional networks can foster positive attitudes, while sensational or negative portrayals on social media can contribute to skepticism or fear (Koul and Ethel 2021). Research has also shown that extended internet use, particularly on platforms that emphasize user-generated content, is associated with higher familiarity and acceptance of digital technologies (Kemp 2022). Despite the global proliferation of AI technologies, studies on public attitudes toward AI have focused primarily on developed countries, leaving a significant gap in understanding within developing countries. This study focuses on Albania, a nation experiencing rapid digital transformation and increasing engagement with AI applications. The research aims to explore the relationship between social media use, online behaviour, and attitudes toward AI among Albanian internet users. By examining demographic factors, time spent online, and specific online activities, the study seeks to uncover patterns that influence perceptions of AI. This insight is essential for policymakers, educators, and technology developers who aim to foster informed and constructive engagement with AI technologies.

This investigation draws on existing theoretical frameworks and empirical evidence to address key questions: How does the amount of time spent online influence attitudes toward AI? What role do different types of online activities, such as gaming, educational content, or entertainment, play in shaping perceptions? Are there significant differences in attitudes toward AI across demographic groups, including age and gender? By addressing these questions, this study contributes to the growing literature on the interaction between digital behaviour and technology acceptance, providing a basis for future research and policy development.

2 METHODS

2.1 Research Design

This research used a quantitative design to examine the relationship between social media use, online behaviours, and attitudes toward artificial intelligence (AI). The study focused on exploring how different variables, such as gender, age, time spent online, and types of online activities, are related to individuals' perceptions of AI.

1.2 Participants

The research sample consisted of 250 participants who were selected from different cities in Albania. A non-probability sampling method was used, where participants were not selected randomly, but based on their accessibility and willingness to participate. This method enabled the collection of data from a diverse group, although it may limit the generalizability of the findings to the wider population. The sample consisted of 205 females and 45 males, with an age range of 18 to 50 years, ensuring that the sample represented a wide range of age groups. This demographic distribution was intentional to observe possible differences in attitudes towards AI across genders and age groups.

2.3 Measurement Tool

The main tool used to assess participants' attitudes towards AI was the AI Attitude Scale (AIAS-4), developed by Grassini in 2023. This scale is a psychometric instrument that measures individuals'

perceptions, feelings and attitudes towards AI along different dimensions. The AIAS-4 consists of several items that capture different aspects of AI, such as perceived usefulness, trustworthiness and potential impact on society. The scale is widely recognized for its reliability and validity, making it suitable for use in research exploring attitudes towards emerging technologies such as AI. In addition to the AIAS-4, the survey included questions about participants' internet usage habits, such as:

- Average time spent online each day (measured in hours).
- Types of online activities, categorized as:
  - Social networks (e.g., Facebook, Instagram);
  - Gaming (e.g., online gaming platforms);
  - Educational activities (e.g., e-learning platforms, academic websites);
  - Viewing erotic content (e.g., adult websites).

These questions helped provide context for participants' online behaviours and allowed for an analysis of how these activities might relate to their attitudes toward AI.

2.4 Statistical Analysis

Inferential tests, such as t-tests and ANOVA, were used to explore differences in AI attitudes based on factors such as gender, age, time spent online, and the types of online activities in which participants engaged.

2.5 Ethical Considerations

The study adhered to ethical research guidelines, ensuring informed consent from all participants and maintaining the confidentiality of the data collected.

3 RESULTS

Independent samples t-test results indicate no statistically significant difference in AI attitude scores between females and males. Female students demonstrated slightly more positive attitudes toward artificial intelligence (M = 55.83, SD = 10.18) compared to male students (M = 56.00, SD = 12.38), but the difference was not statistically significant, t(248) = .480, p=.631> .05.

Table 1: Mean Scores, Standard Deviation, and t-values of female and male students in relation to artificial intelligence.

Variable	Gender	N	Mean	SD	t (248)	F	P
AI attitudes	Female	205	56.83	10.18	.480	2.769	.631
	Male	45	56.00	12.38			

To explore potential differences in attitudes toward artificial intelligence (AI) across different age groups, a one-way analysis of variance (ANOVA) was conducted. The results revealed no significant differences in AI attitudes among the three age groups: 18–25 years (M = 71.83, SD = 11.70), 26–35 years (M = 72.73, SD = 10.75), and 36–50 years (M = 72.83, SD = 11.76), F(2, 247) = .782, p = .458 >.05.

Table 2: Mean, standard deviation, F and P for age variable in attitudes toward artificial intelligence.

Variables	Group	N	Mean	SD	F (2, 247)	P
AI attitudes	18-25	65	71.83	11.70	.782	.458
	26-35	71	72.73	10.75		
	36-50	12	72.83	11.76		

A one-way ANOVA was conducted to examine the differences in attitudes toward AI across four groups based on the type of internet activity: gaming, communication, information gathering/sharing, and engagement with erotic material. The results revealed a statistically significant difference in AI attitudes between groups F(3, 246) = 6.41, p < .001.

Post hoc comparisons using Tukey's HSD test indicated that participants who used the internet for gaming (M = 59.65, SD = 9.55) displayed significantly more positive attitudes toward AI compared to those engaging with erotic content (M = 41.88, SD = 10.83), $p < .05$. Additionally, the gaming group also scored higher, though not significantly, than the communication/connection group (M = 57.32, SD = 9.69) and the information gathering/sharing group (M = 56.26, SD = 11.26). The erotic content group demonstrated the least positive attitudes toward AI, with a mean score significantly lower than all other groups.

Levene's test confirmed the assumption of homogeneity of variances, $F(3, 246) = 0.52$, $p = .667$.

Table 3: Mean, standard deviation, F and P of internet activity groups in attitudes toward artificial intelligence.

Variables	Group	N	Mean	SD	F (3, 246)	P
AI attitudes	Gaming	23	59.65	9.55	6.412	.000
	Comunication/ Connection	136	57.31	9.68		
	Information	83	56.26	11.26		
	Erotic material	8	41.87	10.59		

ANOVA analysis revealed a significant difference in attitudes toward AI based on the time spent online $F(4,245) = .714$, $p < .05$. The results indicated that participants spending over six hours online had significantly more positive attitudes toward AI (M = 60.33, SD = 7.94) than those in the <1 hour (M = 55.00, SD=10.70) and 1-2 hours groups (M = 56.56, SD=11.56). These findings suggest that increased internet usage may influence more favourable perceptions of AI.

Table 4: Mean, standard deviation, F and P for time spent online and attitudes toward artificial intelligence

Variables	Group	N	Mean	SD	F (4, 245)	P
AI attitudes	> 1 hour	53	55.00	10.70	.714	.005
	1-2 hour	95	56.56	11.56		
	2-4 hour	66	57.16	9.61		
	4-6 hour	30	58.26	9.75		
	< 6 hour	6	60.33	7.94		

4 DISCUSSION

The present study provides critical insights into how social media use and online behaviours influence attitudes toward artificial intelligence (AI) in Albania. With limited research on this topic in developing countries, the study results contribute to understanding the psychological factors that shape public perceptions of AI, especially in a context where AI is rapidly being integrated into everyday life. The lack of significant differences in AI attitudes based on gender and age group in this study challenges some of the typical assumptions in the existing literature that demographic factors, such as age and gender, play a central role in determining how individuals view AI technologies (Binns 2018; Peters et al. 2021). This suggests that other factors, particularly those related to online behaviour and exposure to technology, may be more influential in shaping individuals' attitudes toward AI. A significant finding of this study is the association between time spent online and positive attitudes toward AI. This is consistent with previous research that has highlighted the relationship between digital exposure and more favourable views of emerging technologies (Anderson and Rainie 2018). As individuals become increasingly immersed in the digital space, it stands to reason that familiarity with technology – such as AI – may foster a more positive outlook toward its integration into various sectors. This finding is particularly relevant in the context of Albania, a developing country where internet penetration has steadily increased in recent years and access to information about AI is becoming increasingly widespread (International Telecommunication Union 2020). Another important finding is the impact of the type of online activity on perceptions of AI.

Participants who engaged in games exhibited more favourable attitudes toward AI than those who used the Internet for erotic content. This difference highlights the role that content consumption plays in shaping individuals' perceptions of technology. It can be argued that games, which are often associated with technological innovation and cutting-edge developments, may create a more positive association with AI technologies (Müller et al. 2019). Conversely, engagement with erotic content may foster a more negative view due to the potential stigma attached to such activities, leading individuals to associate AI with more controversial or undesirable aspects of society (Binns 2018). These findings contribute to the literature on AI perceptions by drawing attention to the psychological and behavioural factors that shape individuals' views of AI. Previous studies have shown that factors such as familiarity with AI, media exposure, and personal experiences with technology can influence perceptions (Fleischer 2020). The current study builds on these findings by highlighting the role of Internet usage patterns in shaping individuals' attitudes toward AI. It also opens new avenues for understanding how different forms of online engagement influence these attitudes. Furthermore, the lack of significant demographic differences may reflect broader cultural trends in Albania, where attitudes toward technology may be influenced more by collective experiences with digital media rather than individual characteristics such as gender or age. This may suggest that AI attitudes are becoming more universal across demographic groups, perhaps due to the global nature of the internet and the shared experiences of individuals engaging with online content (Zuboff 2019).

5 CONCLUSION

This study provides valuable insights into the factors influencing attitudes towards artificial intelligence (AI) in Albania, a developing country where research on this topic remains limited. The findings challenge conventional assumptions about the role of demographic factors, such as age and gender, in shaping perceptions of AI. Instead, online behaviour, particularly time spent online and the type of content consumed, appear to play a more important role in shaping these attitudes. The positive relationship between digital exposure and favourable views towards AI underscores the growing importance of technological engagement in shaping public opinion. Furthermore, the study highlights the need for further exploration of how different forms of online activity influence individuals' perceptions of emerging technologies.

6 RECOMMENDATIONS

Given the role of digital exposure in shaping attitudes towards AI, it is recommended that educational initiatives prioritize digital literacy programs. These programs can foster more positive perceptions of AI by increasing awareness of its applications and potential benefits.

Public campaigns should be designed to educate the population about the societal implications of AI. Particular attention should be paid to online behaviours that may shape these perceptions, including the positive impacts of gaming and other forms of digital engagement.

Future studies should explore the specific types of online content that influence attitudes toward AI. This research could provide deeper insights into the psychological factors that shape public opinions and help design interventions that promote a more balanced understanding of AI. Policymakers and AI developers should consider cultural factors when introducing AI technologies in developing countries like Albania. Ensuring that AI tools are consistent with local values and concerns can increase their acceptance and integration into society.

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1.08 Objavljeni znanstveni prispevek na konferenci
Published scientific conference contribution

TEACHERS' PERCEPTIONS AND RESISTANCE TO CHANGE REGARDING THE INTEGRATION OF AI IN THE TEACHING PROCESS[1]

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ABSTRACT

The technological transformation that came from AI brought a huge impact in recent years and mainly in the field of education, also transforming the teaching process. This study aims to explore the experiences and perceptions of teachers regarding the resistance to change they show regarding the integration of AI in the teaching process. The population of this study was chosen as a random sampling for qualitative studies, 20 public high school teachers in Albania, a diverse sample, teachers of different subjects, from different areas. The qualitative design was used in the study, conducting 20 semi-structured interviews with the participants in the study. To analyze the data, thematic analysis was used to identify and analyse the issues and themes of the transcripts of the conducted interviews. The analysis resulted in four main topics: benefits from technology but also dependence on technology, obstacles in the adoption of AI, resistance to change, as well as the need for further training in this

field. This study contributes to the understanding of the ways in which teachers perceive and react to the integration of AI in today's education and offers recommendations for improving the process of training and implementing technologies.

Keywords: *Artificial Intelligence (AI), Education, Teachers' perceptions, Resistance to change, Technology integration, AI in teaching.*

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1 INTRODUCTION

The introduction of AI brought about a very big historical change, affecting various fields, most notably in the field of education. In countries with a somewhat average level of technological development like Albania, the greatest impact of AI was also in the field of education. The use of artificial intelligence in recent years, mainly in the field of education, constitutes a very complex process, greatly affecting the perceptions and willingness of teachers to use new technologies (Alshorman 2024; Celik et al. 2022). Our study investigates the attitudes of teachers in Albania towards the use of AI in the educational context, with a particular focus on their perceptions of the use of AI tools in education.

The rapid advancement of AI in the last two years has also had an impact on the field of education, bringing new approaches to use in both teaching and learning processes (Celik et al. 2022; Zhang et al. 2023). The use of AI tools in the educational context has enabled the personalization of the learning process, enabling student engagement. The various AI tools that are in use in the educational field can provide very fast feedback and offer support to both teachers and students. However, the integration of AI in the field of education is not without challenges, and it is necessary to have a team such as administrators, teachers, and school staff who adapt to the new methods and tools that AI offers (Cheng and Wang 2023). We can say that the way teachers perceive something new like AI is very important because it is precisely this way that determines how successful the implementation of AI can be in the educational environment (Asanre, Taiwo, and Odupe 2024). Numerous studies show us that teachers' attitudes are influenced by many factors and among the most important are factors related to self-efficacy or confidence in using technology, beliefs about student learning, and the impact and importance of AI in their teaching (Bakhadirov et al. 2024; Yim and Wegerif 2024). Many teachers see the use of AI as something positive that helps them in their work, in the creation of various educational materials, and on the other hand in the engagement of students (Cruz, Duque, and Carvalho 2024; Moylan, Code, and O'Brien 2025). However, there are several research studies that emphasize that very often these positive perceptions of the use of AI are accompanied by teachers' concerns regarding issues related to the ethics of using AI in education, data confidentiality, and a major concern remains the impact that the use of AI may have on the learning process for students (Kalra 2024).

If we focus on resistance to change among teachers, we can say that it constitutes a barrier to integrating AI into the educational environment (Lasisi and Oreagba 2024; Nazaretsky et al. 2022). Resistance to change as a psychological component usually results from a lack of awareness about something or a lack of knowledge about the advantages that the use of AI can bring to the educational field (Shamsuddinova, Heryani, and Naval 2024). Given the great attention that the use of AI in education has received in the media, predictions for the future use of AI in education have made it possible for many teachers to perceive AI as a threat to their profession rather than an innovative tool that improves the teaching process (Priya Gupta and Bhaskar 2020; Nazaretsky et al. 2022). Considering the great change that AI has brought in every field, and even more so in education, some teachers still prefer to use traditional teaching methods over innovative ones (Yim and Wegerif 2024). The emergence of such resistance to the use of AI in teaching may be related to the lack of knowledge about how AI tools can be used, as well as the perception that they can be difficult to integrate into the teaching process (Zhang et al. 2023).

This study is based on the Technology Acceptance Model (TAM) and Self-Efficacy Theory, two scientific frameworks that provide a panorama of how teachers perceive and adapt the use of technology such as artificial intelligence tools in the field of education. These two models provide a deeper understanding of the factors that influence teachers' attitudes towards the use of this innovative technology in the educational environment.

The TAM model presented by suggests that two key factors play a role in the adaptation of technology in the work environment, such as the perception of the need to use it and the ease of use. Teachers are more likely to accept AI if they believe that it improves the effectiveness of teaching and is easy for them to use. Similarly, Bandura's self-efficacy theory (Bandura 1977) emphasizes the role of self-confidence in accomplishing a certain task. In this context, teachers who feel capable of using AI are more likely to use it in educational settings (Venkatesh et al. 2003; Bogdan and Biklen 1998).

To understand the variation in adaptability or resistance, the study considered the Unified Theory of Acceptance and Use of Technology and the Diffusion of Innovations Theory. UTAUT (Venkatesh et al. 2003), as a theory, identifies factors such as performance, expectations, effort, social influence, and enabling conditions as key elements in influencing the adaptation to technology in the educational environment.

Similarly, the Diffusion of Innovations Theory (Rogers 1983) emphasizes the way in which ideas and innovations are disseminated within a given time among people and how they are accepted. The acceptance of ideas and innovations is influenced by a series of factors ranging from relative advantage, complexity, compatibility, testing, and observability (Moore and Benbasat 1991). Together, these theoretical frameworks establish a logical theoretical framework for interpreting teachers' perspectives regarding adaptation to resistance in the educational context. Referring to such complexities, it is very important to research teachers' perceptions regarding the use of AI in education as well as the resistance they experience to change, in a context like Albania. It is very important to understand the factors that influence the above-mentioned dimensions as a precise understanding helps in the design of effective trainings by policymakers, schools or various centers that provide training for teachers.

This study addressed teachers' perceptions in Albania and resistance to change regarding the use of Artificial Intelligence in the educational process. Due to the very rapid developments that are taking place regarding AI tools, and especially in the field of education, it is very important to understand how teachers perceive the advantages and challenges that AI brings to the field of education. This study aims to identify factors that influence the acceptance or resistance of the use of AI in education by teachers in Albania as well as to suggest recommendations to remove barriers to the adequate adaptation of AI in schools in Albania.

This qualitative study aims to answer these research questions:

1. What are teachers' perceptions regarding the advantages and disadvantages of integrating AI into the educational process in schools?
2. How do Albanian teachers perceive the impact of AI on pedagogy, the learning process, and classroom management?
3. What are the factors that influence teachers' resistance to change in relation to the adaptation of AI in the educational process?

2 METHODS

This study used a qualitative research approach. The use of qualitative research methods is appropriate for exploring the subjective experiences of teachers, helping to explore their perspectives on the adoption of AI in education, resistance to the use of AI, and pedagogical challenges. A semi-structured interview was used to collect data in this study. This method was used because of its convenience and depth, offering us the opportunity to explore the lived experiences of participants regarding the use of AI tools in the classroom. This method is appropriate for studies that are exploratory in nature, where the objective is to understand the development of attitudes rather than testing predetermined hypotheses (Bogdan and Biklen 1998).

Purposive sampling was used to select the sample in order to ensure a diverse and representative sample of teachers in public high schools in Albania, located in rural and urban areas. 20 teachers from different fields participated in this study, in order to have a representation of the perspectives of teachers of core subjects such as mathematics, physics, social sciences and foreign languages. Referring to the principle of geographical representation, teachers from both urban and rural areas were included in the study, taking into account the fact that there are differences in these regions regarding the infrastructure necessary to use or adapt AI in education. Also, an important condition for inclusion in the sample was teaching experience, which should include teachers who were in the initial stages of their careers (1-5 years), as well as teachers with teaching experience (10+ years), considering that years of employment can influence perceptions regarding the use of AI in education. Finally, an equally important element was taken into account, such as the level of digital literacy, thus having participants ranging from those who have already integrated AI into the teaching process to those who show resistance to using it or are skeptical of AI as a tool in education.

Table 1. Demographic data

Variables	Category	N	Percent (%)
Gender	Female	12	60.0
	Male	8	40.0
Age	25-34 years old	4	20.0
	35-44 years old	6	30.0
	45-54 years old	7	35.0
	55+ years old	3	15.0
Teaching Subject	Gjuhë dhe Letërsi	4	20.0
	Mathematics	3	15.0
	Natural Sciences	4	20.0
	Technology and Informatics	2	10.0
	Social Sciences	3	15.0
Geographical area	Urban	12	60
	Rural	8	40
Teaching experience	1-5 years of experience	6	30
	10+ years of experience	14	70
Perceived level of digital literacy	Have integrated AI	7	35
	Resistant to AI	8	40
	Skeptic to AI	5	25

The data collection phase lasted 2 months (September 2024-October 2024) and took place in 5 public secondary schools in Albania. Taking into account factors such as availability and preferences, the interviews were conducted all face to face. Each interview lasted 40-50 minutes. The interviews were audio-recorded with the consent of each participant, and were then transcribed verbatim.

2.2 Data Analysis

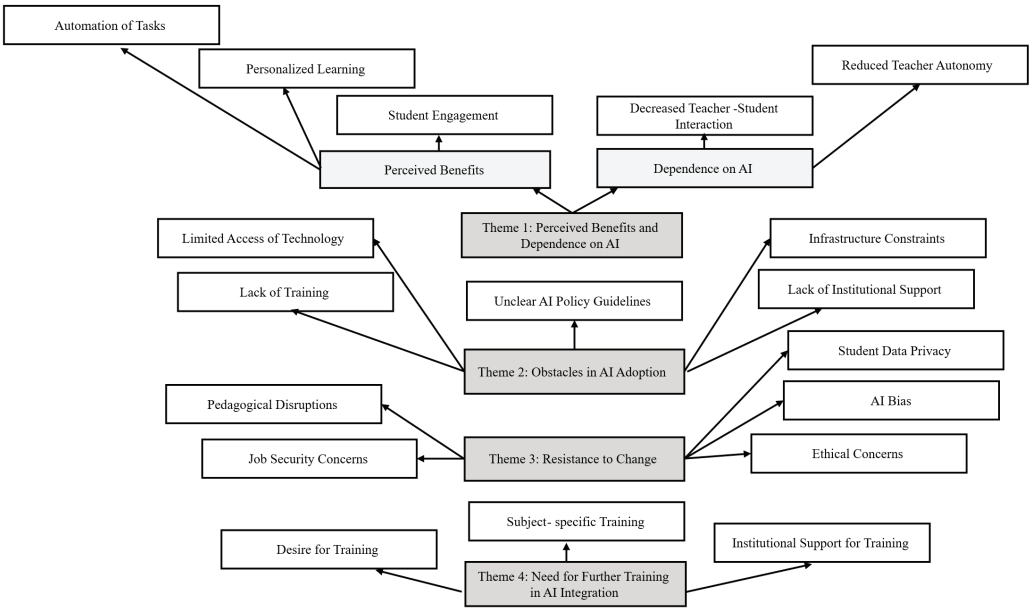
The data for this study were analyzed using thematic analysis, a qualitative approach that allows researchers to systematically identify, organize materials, and interpret themes that emerge from a data set (Braun and Clarke 2006). This study used the 6-phase framework of Braun and Clarke to ensure the appropriate methodology. Data analysis was carried out through thematic analysis, as an effective method to examine the experiences, beliefs, concerns and challenges experienced by teachers regarding the use of AI in education. Ethical standards were used throughout the study, from informed consent to rigorous data protection of participants, ensuring anonymity from the data analysis phase to data storage. The coding of the interviews was carried out by both researchers of this research independently to increase coding accuracy and objectivity.

3 RESULTS

During the thematic analysis, four main themes emerged: (1) perception of the advantages and dependence on AI, (2) barriers to adapting AI in the educational context, (3) resistance to change, and (4) the need for training in integrating AI into education.

Each of the main themes is based on the statements of the interviewees, conveying a picture of their perspective. The coding approach and thematic categories are schematically presented in Figure 1.

Figure 1: Schematic Diagram of Themes and Subcategories in AI adoption



(Source: Authors')

Theme 1: Perception of the advantages and dependence on AI

Many teachers agree on the potential of using AI in the educational process, as an opportunity to improve teaching efficiency, as well as to influence the fuller engagement of students. AI tools are also seen as facilitating processes such as preparing learning materials or various tests. However, some of the study participants expressed concerns about the addiction that the use of such AI tools could cause.

"I often use AI to prepare materials related to the day's lesson, as well as for lesson plans, and it really saves me a lot of time. On the other hand, I often worry because I think that very soon we will become dependent on this technology, which can greatly affect our decision-making role."
(Teacher 14, High School, urban)

From this category, a perception related to the risk that may come to teacher-student interaction emerged as a sub-theme, as some teachers expressed concern about the somewhat negative impact that artificial intelligence tools may have on teacher-student engagement.

Theme 2: Obstacles to the adoption of AI in the educational context

Teachers express that they face many obstacles regarding the possibility of integrating artificial intelligence tools into the educational environment, given the fact that many schools face obstacles related to the lack of appropriate technological infrastructure in schools, where in addition there is a marked lack of training related to this new skill that teachers really need. Rural schools, in particular, face a lack of digital infrastructure, making the implementation of AI very difficult.

"We do not have an ICT room in our school. We can say that this makes it difficult to properly integrate AI into the educational environment, even though students use it at home."
(Teacher 7, Secondary school, rural)

Another evident obstacle is the lack of institutional support, with many teachers stating that they are not aware of any policies regarding the use of AI in education. Furthermore, the lack of training modules in this area makes this challenge even more difficult.

Theme 3: Resistance to change

A large percentage of teachers expressed reluctance regarding the use of AI, expressing concerns regarding job security as well as the ethics of using AI in the educational environment. Some stated that they see AI as a threat to their professional identity, and leading to an underestimation of the expertise of teachers.

"If AI does not make lesson plans and answer students' questions, what happens to us as teachers? It seems like we are slowly being replaced."
(Teacher 3, High School, Urban)

Theme 4: The need for training in integrating AI into education

The last theme emphasizes the urgent need for structured training programs that take into account the digital competencies of teachers and focus on the needs of the subjects they teach in school.

"I am not against the use of AI in school, but we need training, as it seems like something that is moving at an extremely fast pace and we see that students know more than we do about using it. On the other hand, we need training on how to use it ethically within the teaching process."
(Teacher 19, High School, Urban)

Most participants highlighted the need for workshops, training, collaboration and government initiatives that facilitate capacity building in knowledge on the use of AI. Finally, it is worth noting that although the sampling was very diverse in terms of demographic factors, during the research we did not identify any single factor that was more predisposing to the acceptance or not of Ai in the learning process.

4 DISCUSSION

This study presents an overview of Albanian teachers' perceptions of AI adoption in Albanian pre-university education in public schools (located in urban and rural areas). The findings of our study are in line with existing findings regarding teachers' digital skills, their concerns regarding the ethics of use (Dieterle, Dede, and Walker 2024), as well as professional resistance to changes brought about by technology in the educational environment (Luckin et al. 2022). On the other hand, the findings of this study highlight such obstacles in the education system as inadequate infrastructure, a lack of written policies regarding the use of AI that are consistent with the findings of other studies (Vazhayil et al. 2019), training in these areas, etc. This field of study remains understudied in the Albanian context.

According to the findings of this study, AI is perceived by many teachers as an advantage in reducing administrative workload, improving student engagement during the learning process, and helping to facilitate the personalized learning process. Similarly, other scientific research in these fields demonstrates that AI tools used in educational environments help simplify assessment processes, help automate feedback mechanisms, and improve classroom efficiency (Luckin et al. 2022).

An important finding of this study is the resistance of teachers to the use of AI, which comes as a result of concerns about job security, putting their role as teachers at risk, ethical risks that may arise, etc. Previous studies have also emphasized the anxiety about the automation of education in the future (Zawacki-Richter et al. 2019). Despite these findings, we can say that resistance to change, the use of AI in the educational environment, is not absolute. Taking into account that many teachers express that they are ready to integrate the use of AI in the teaching process, but in such conditions where there is a clear development policy as well as appropriate training regarding the use of AI.

5 LIMITATIONS OF THE STUDY

This study certainly presents some limitations that are present in qualitative studies, on the other hand it offers perspectives for other studies in the future. Initially we are dealing with a limitation that is related to the data that come from individual perceptions of the study participants. Second-

ly, the number of study participants limits the generalization of the data. Finally, we can say that artificial intelligence tools are evolving from day to day, offering simpler ways and in the Albanian language to be used, which may bring changes in perception and resistance regarding their use in the field of education.

6 CONCLUSIONS

In our study, we interviewed, through the qualitative method of the study, 20 teachers of different educational profiles and employed in public pre-university education in schools in different geographical areas, regarding their perceptions and resistance regarding the integration of artificial intelligence in education. By analyzing the in-depth interviews, we found that teachers perceive both the advantages but also the obstacles they encounter regarding the adaptation of AI in education in Albania, emphasizing the special role of technological infrastructure, institutional support referring to written policies, financial resources, professional development, etc., professional training which can enable an easy and very effective adaptation. Through qualitative analysis, four main themes emerged: (1) the perceived benefits and growing dependence on AI, (2) barriers to AI adoption, (3) resistance to change, and (4) the pressing need for AI training.

While many teachers recognize the importance and potential of using various artificial intelligence tools in education in aspects such as increasing the efficiency of the teaching process, automating routine tasks, and personalizing learning, some teachers express concern about the fact that a dependence on the use of various AI tools may be created, expressing concern and fear regarding the possible impact it may have on classroom dynamics and mainly on the interaction between the teacher-student dyad. We also found that the resistance to change exhibited by some teachers stems mainly from concerns about job security, numerous uncertainties regarding the use of AI in education related to the long-term effects it may have, and ethical doubts regarding data privacy in this field. Finally, our findings highlight the urgent need for structured professional training programs that not only provide direct training in the use of AI tools, but also provide mentoring and guidance from educational institutions themselves. The findings also suggest that for a successful implementation of AI in the field of education in Albania, it is essential that teachers are empowered with the skills and confidence to use these new artificial intelligence tools. It is also very important to build adequate policies that define the framework for the use of these tools in the pre-university education system.

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