**ISSN: 2582-0745** Vol. 5, No. 05; 2022

#### FOR CREATIVE STUDENTS, WE NEED CREATIVE TEACHERS: THE VIEWS OF SLOVENIAN PRIMARY SCHOOL TEACHERS ON PROMOTING CREATIVITY IN THE CLASSROOM

Andreja Kozmus<sup>1\*</sup> and Sara Kaučič<sup>2</sup>

<sup>1</sup>Department of Pedagogy, Faculty of Arts, University of Maribor, Koroška cesta 160, 2000 Maribor, Slovenia <sup>2</sup>Primary School Destrnik-Trnovska vas, Janežovski Vrh 45, 2253 Destrnik, Slovenia

https://doi.org/10.54922/IJEHSS.2022.0441

#### ABSTRACT

The purpose of this paper is to explore the views of Slovenian primary school teachers on creativity. In the theoretical part we analyse the importance of creativity in finding solutions for today's global problems, explore the didactic competences of teachers in promoting student creativity, and examine training in the field of creativity. We also emphasize the importance of the courage needed to take an autonomous stance in relation to existing curricula and educational policies, for the education of future autonomous and critical thinkers. In the empirical part, we present a survey of the attitudes of 196 Slovenian primary school teachers on creativity in teaching, according to gender, years of service, level of teaching and the subject area of taught. We were interested in the general attitudes of teachers toward creativity, their views on the amount of knowledge in the field of creativity they possess, the frequency of participation in training on different creative methods, the frequency of using various teaching methods and in actual examples of encouraging creativity in teaching. We found that teachers had positive attitudes towards creativity. Class teachers are more likely to encourage creativity than subject teachers, and among the latter, language and art teachers are more likely to promote it than science and social studies teachers. Teachers acquire knowledge in the field of creativity at seminars and through their own research. Seminars are most often attended by language teachers. According to teachers, the school management does not particularly encourage them to do so.

Key Words: Creativity, Innovation, Education, Teachers' Point of View.

### **1. INTRODUCTION**

In the past, creativity was considered as a divine revelation (Simonton, 2000), which was a gift of individuals and was expressed through art (SSKJ, 1994). Today it is more accepted that most people can be creative (Robinson, & Aronica, 2015; De Bono 2021); the difference lies only in the degree and range of creativity (Keong, 2008), as creative abilities, as with mental ones, are supposed to be distributed normally (Marentič Požarnik, 2018). A model of creative ability (Guilford, 1950) consists of 4 characteristics and is still in use. They are a) fluency (when a person produces lots of ideas), b) flexibility (when a person produces lots of different types of ideas), c) originality (when a person produces unusual ideas), and d) elaboration (when a person develops those ideas in practice). Creativity refers to inventing and producing ideas that are new; innovation is about putting new ideas into practice. Creativity is therefore a precondition for innovation to

#### **ISSN: 2582-0745**

Vol. 5, No. 05; 2022

occur (Kozina, 2016); innovation is a characteristic of the creator (Cankar, Likar, Zupan, & Deutsch, 2015).

The concept of innovation is increasingly being discussed in the school environment (Trunk Širca, 2002). Most often we talk about an innovative teacher or student, and even about innovative methods and techniques of teaching. The recently deceased author De Bono (1998, 2021) emphasized that there were many techniques through which anyone could develop his or her own creativity; he introduced the concept of "lateral thinking" (2021), where, in contrast to today's predominant vertical thinking, a person seeks new directions and solutions. Surprising reversals free us from anchored patterns and systems and offer a new perspective on the problem and thus the possibility of innovative problem solving, where humor is an important component. Trunk Širca (2002) concludes that the concepts of innovation and creativity are closely linked to quality. If we want a quality education, we need to encourage creativity in schools, not only on a declarative level.

Teachers who seek to encourage children to be creative need to be aware of a) the importance of creativity for today's world challenges and b) their own impact on the development of creativity in young people (Ahmadi, & Besançon, 2017). To be creative, teachers need to be ready for continuous education and training in the field of creative teaching and to have the courage to take an autonomous stance in relation to the curriculum and current educational policies, to implement creative teaching in practice.

### **1.1.** The importance of today's creativity

### **1.1.1. Addressing new problems**

Creativity is not just about solving problems, but also about addressing new problems that arise in different areas of our lives, and flexibility as an answer to rapid changes in the world is needed (Busharian, 2020). Students will live in a world of constant change, so they will have to adapt to and seek information in new ways (Sadar Šoba, 2014).

In order that students find and solve such problems in future, teachers should not be critical of divergent answers (Woolfolk, 2002; Marentič Požarnik, 2018); they should respect new ideas, seek new initiatives, and promote the students' confidence in personal judgment and independence (Kozmus, 2016). Encouraging the spirit of research awakens curiosity, a desire to learn something new, and prepares the student for lifelong learning, without focusing solely on school learning. Though conformism in school is necessary to some extent, mere repetition and excessive encouragement of convergent thinking can lead to mental blocks, routine, and an unwillingness to see new problems and solutions (Pečjak, 2002). Kroflič (1997) introduces the notion of self-limiting authority, where the teacher, by increasing the students' independence, limits himself to

**ISSN: 2582-0745** 

Vol. 5, No. 05; 2022

give space to the students. Teachers should be an authority that strives towards realization of independence, morality, and creativity.

Busharian (2020) introduced 3 strategies, needed for curricula to incorporate a) appropriate respond to existing conditions, b) students to be prepared for coping with future trends and uncertainty, and c) creative guidelines according to a vision of needed reality.

#### **1.1.2. Development of an autonomous individual**

Callahan, & Missett (2011) divide characteristic traits of creative adolescents as a) rejection of social conformity, b) desire for independence, c) attraction for novelty, d) taste for risk, and e) greater perseverance to face the obstacles. Kroflič (2001) highlights two concepts of creativity to resolve the contradiction that arises between coercion and the upbringing of an independent and autonomous person. The first is about the creativity that stems from a students' curiosity and innate imagination. This will develop spontaneously if we do not expose the students too early to harsh limits and excessive demands but, instead, base the students' upbringing on promoting his independence, wherever possible. The second concept refers to the development of students as creative, autonomous people, who will be able to think independently and resist the principle of comfort and external authority.

Only the teachers' authority and the students' motivation enable the individual to resist established patterns of thinking and to construct themselves as autonomous persons. For "rich body of domain-relevant knowledge" (Simonton, 2000, p. 152) which provides a person with many well-developed skills, that enable new ideas, also disciplined and systematic training, and practice (in the field of research) is demanded.

### **1.1.3.** Development of social competences

We can also divide creativity into that which relates to things and that which relates to people and manifests itself in interpersonal relationships (Makarovič, 2003). The product of creativity is thus reflected not only in the (realized) ideas of the individual, but also in the relationships that are formed between people and more generally, in the way we live (Majerle, 2010).

On the individual level four main components for creative behaviour are recognised as cognitive, conative, emotional, and environmental (Beghetto, & Kaufman, 2014). In relations with others Hozjan, Zorman, Rutar, & Saksida (2014) note that creative individuals are more socially competent, more courageous in expression, and have more pronounced nonverbal abilities and thus better social interactions, which can also be more diverse. They are also characterized by original thinking and critical judgment of what is right and what is wrong. Today, connecting and jointly solving global problems is important, as the problems are arising and affecting the world globally.

**ISSN: 2582-0745** Vol. 5, No. 05; 2022

### **1.2. Teachers' influence on the development of student creativity 1.2.1. Quality teaching**

Hargreaves and Fullan (2000) say that teachers must plan lessons consistently, be thoughtful and able to justify the changes introduced. It is therefore conscious, planned, and creative work by the teacher that leads to changes in pedagogical practice. Teachers can counter the routine and monotony of teaching with creative teaching methods and techniques (Petrović, 2015). Marentič Požarnik (2018) also emphasizes that innovation, changes, surprises, challenges, and inconsistencies are important for maintaining curiosity in lessons. With these, the teacher gains students' attention, arouses their interest, stimulates enthusiasm and joy in the learning process, and motivates students by activating thinking. This increases the students' ability to see the importance of the subject, their own abilities and satisfaction with the work done, while also increasing the commitment and ability to use the acquired knowledge in everyday life (Lucariello, 2019). Such learning takes place because of creation, curiosity, exploration, and satisfaction and not because of rewards and grades. Juriševič (2012) highlights several suggestions that contribute to the student's creativity by finding a balance between different characteristics of the students and of learning content. Teachers should a) identify students' learning and developmental needs and the student's motivational orientation, b) recognize and consider their prior knowledge, c) use several teaching techniques, methods, approaches, and strategies, in all subjects, d) adapt unfamiliar learning content and situations to students, and e) individualize work and learning. Gibb (2002) encourages teachers to focus more on process rather than content, on the student rather than on their own role as teacher.

Simonton (1994) requires teachers to expose students to diverse experiences to help them to weaken the pattern of the conventional behaviour they were imposed to during the socialization and to expose them to challenging experiences to, to help them strengthen a capacity to persevere in the face of obstacles.

### **1.2.2.** Teacher being an example as an autonomous posture in the classroom

Teachers are always an example to students in their work, whether they are aware of it or not. Marentič Požarnik (2018) and Petrović (2015) believe that it is very important for teachers to display their own creativity for students.

Only an autonomous teacher enables an autonomous student. What gives a teacher autonomy are knowledge, professional competence, and creativity. Creativity is not so much influenced by the teacher's support for and sensitivity to students, but by the teacher's authority and motivation to resist the already existing pattern of social thinking (Kroflič, 2001). Elmore and Sykes (1992) point out that the curriculum has a considerable reserve. From the curriculum, teachers can (in some extend) independently choose the key content and adapt the method of implementation to the needs

#### **ISSN: 2582-0745**

Vol. 5, No. 05; 2022

of students. Pečjak (2002) suggests that teachers shorten materials and explanations, while simultaneously changing teaching methods.

Javornik Krečič (2008) and Fatur and Likar (2009) believe that it is important to encourage creativity in schools, but most existing Slovenian schools are simply not ready for or in favor of innovation. They prefer to follow the established paths (Jakopec, & Likar, 2009). Among the major problems, they mention cooperation and trust among employees and the lack of involvement by employees in the development aspects of the school (Kunc, 2016). Principals prefer or value obedient individuals, while they treat creative ones as disturbing, disobedient and are burdensome (Marentič Požarnik, 2018), so creativity should be commended and not just enabled (Šorgo, 2011).

The factors that prevent a teacher from thinking creatively and innovatively and creating new ideas are therefore routine, stereotypical habits, dependence and excessive respect for authority, resistance to change and the consequent inability to adapt to many new situations, narrow interests and leadership that is not ready for innovation, and which therefore resorts repeatedly to old structures (School Leadership in Europe, 2012; Kunc, 2016).

#### **1.2.3.** Creative climate

One of the most important factors is the creative climate in the group, which requires an environment where group members trust, encourage and help each other. Only in a positive climate do individuals dare to exchange unusual ideas with each other, since risk and research work are key to creativity (Cachia, Ferrari, Ala-Mutka, & Punie, 2010), both of which are often labeled as contrary to school values that demand from students' diligence discipline and obedience. A good attitude enables students to be more adaptable, while optimizing their well-being, understanding and, ultimately, the chance of better learning success (Pečjak, & Peklaj, 2015).

### 1.3. Teachers' permanent education and training in the field of creativity

Recognition of creativity is the key to students' development (Pečjak, 2002). Teachers promote student creativity in many ways: by their didactic competences, by their willingness to constantly question their own pedagogical practice and mostly by attending training in the field of creativity, as this is an important lifelong process (Ivanuš Grmek, & Ivajnič, 2016).

Researchers (Hozjan et al., 2014) claim that teachers mostly define creativity as students' imagination, self-expression, and originality. Most of them also believe that creativity needs to be developed and encouraged, but they do not know which strategies to use, and they are even less confident about how to evaluate creativity.

According to the Creativity in Schools in Europe survey (2009), as many as 95.5% of teachers are convinced (of which more than 60% even strongly convinced) that creativity can be applied in

#### **ISSN: 2582-0745**

Vol. 5, No. 05; 2022

every field of knowledge and in every subject, and that creativity is a skill that needs to be developed in school. In practice for most teachers, creative thinking is still an alternative used only in the arts. Marentič Požarnik (2018) points out that we should think about the extent to which teachers are familiar with creative approaches to teaching, since teachers' professional development is mostly focused on classic subjects. Petrović (2015) adds that the programs are overcrowded, so both teachers and students are overburdened, and there is a consequent lack of time for creativity; students become less and less motivated.

### 2.METHODOLOGY

The purpose of the empirical part of the paper was to investigate the opinion of Slovenian primary school teachers regarding children's creativity in the classroom. We were interested in the following: (1) The general attitude of teachers towards the development of creativity in the classroom; (2) How often teachers use different teaching methods that encourage creativity; (3) Where teachers acquire knowledge of various creative methods; and (4) How often teachers attend educational workshops. We were interested in whether there were differences between teachers according to gender, years of service, the level at which they teach and the subject area of teaching.

The paper is based on a descriptive-causal, non-experimental method of pedagogical research.

The research was based on a random sample of teachers employed in Slovenian primary schools. The questionnaires were sent to 100 randomly selected (out of 454), publicly available e-mail addresses of primary schools, as published on the website of the Ministry of Education, Science and Sport (2020), which were asked in a letter to send the questionnaire to teachers. We also published a questionnaire on three groups (Teachers to Teachers, Teach and Classroom) of the social network Facebook. Within the deadline, the questionnaire was duly completed by 196 teachers.

The first part of the questionnaire was intended to obtain basic data (gender, age, years of service in education, level, and subject of teaching). We then ascertained the respondents' views on the development of creativity in the classroom, on the ways and frequency of participation in education to promote creativity and asked for specific examples of promoting creativity. In each question, respondents expressed their agreement with individual statements (from 1 - I do not agree at all to 5 - I agree strongly).

The survey questionnaire was completed by 15 male teachers (7.7%) and 181 (92.3%) female teachers; according to age group, 88 (44.9%) were persons under 40 years of age and 108 (55.1%) persons older than 40. Forty-eight (24.5%) had up to 5 years of service in education, 20 (10.2%) had 6 to 10 years of service, 26 (13.3%) had 11 to 15 years of service, 35 (17.9%) from 16 to 20 years of service, and 67 (34.2%) respondents had over 20 years of service. One hundred and twenty

#### **ISSN: 2582-0745**

Vol. 5, No. 05; 2022

(61.2%) teachers taught at the grade level (1st - 5th grade), and 75 (38.3%) at the subject level (6th - 9th grade), one person did not define the level of teaching. Subject teachers who named their subject (71; 36.2%) were divided into 5 groups: 13.3% taught language subjects (Slovenian, German, English, Spanish), 10.2% were science teachers: mathematics, physics, biology (chemistry), 4.1% were teachers of social sciences (history, geography, homeland and civic culture and ethics), 3.6% of teachers of arts (music, fine arts) and 5.1% taught other subjects (sports, technology, computer science, household).

Data were collected using a questionnaire designed specifically for the purposes of the survey. The survey was conducted via an online survey in the period from 17 June to 17 August 2020, and respondents participated in the survey voluntarily. The data were processed with the SPSS software package.

### **3. RESULTS AND DISCUSSION**

#### 3.1. Teachers' views on encouraging creativity in the classroom

We first asked teachers if they encourage creativity in the classroom; 94.4% answered in the affirmative. According to Sadar Šoba (2014), teachers are increasingly aware that fostering creativity in today's world of constant change plays a key role if we are to adapt to change.

| Encouraging creativity | Gender |       | Years of service |       | Level of<br>teaching |       | Subject of teaching |       |
|------------------------|--------|-------|------------------|-------|----------------------|-------|---------------------|-------|
|                        | χ2     | р     | t                | р     | χ2                   | р     | χ2                  | р     |
|                        | 3.683  | 0.055 | 2.813            | 0.095 | 7.19                 | 0.007 | 15.16               | 0.004 |

 Table 1: Teachers' views on encouraging creativity in students

We found no differences in teachers' opinion by gender and years of service. We can assume that teachers are aware of the importance of creativity and see the promotion of creativity as an important competence of the 21st century. Teachers also report that the vast majority encourage creativity in the classroom, regardless of their length of service.

However, significant differences between teachers did emerge, depending on the level of teaching ( $\chi 2 = 7.19$ ; p = 0.007). Subject teachers encourage creativity to a lesser extent (6th - 9th grade; eleven to fourteen years old; 78.8%) than class teachers (1st - 5th grade; six to ten years old; 97.5%). We assume that this reflects the combination of more pronounced creativity, curiosity and playfulness in younger children and the nature of work at the class level. Cencič (2014) says that 90% of children are creative until they enter school, and then their creativity begins to decline significantly; she sees the reason in adapting to the group and getting used to respecting new rules and discipline. Teachers at the grade level spend more time with students and can organize their work more autonomously, making it easier to establish interdisciplinary connections. Despite these

#### **ISSN: 2582-0745**

Vol. 5, No. 05; 2022

differences, we must point out that we have a small sample of subject teachers, so we cannot speak with certainty about the basic population.

Depending on the subject taught, creativity is more encouraged by those who teach language subjects (100.0%) and subjects that include art (100.0%) than by those who teach science (75.0%) or social sciences (57.1%). Teachers of other subjects (this category includes teachers of sports, technology, household, and computer science; 90.0%) in the vast majority encourage creativity in teaching ( $\chi 2 = 15.16$ ; p = 0.004). The results coincide with the thinking of Marentič Požarnik (2018) that teachers too often see creativity in close connection with art subjects and language subjects, but often forget to encourage creativity in other subjects, such as science and social sciences. Požar Matijašič and Bucik (2008) see a potential solution in the intertwining and complementarity of art and (natural) sciences, which would enable students and teachers to make interdisciplinary connections. By considering common points, science and art can be connected and supplemented, and the differential approach in school could be mitigated (ibid, p. 151-157).

#### 3.2. Views on the use of various methods to promote creativity

A wide range of exercises, techniques and methods are important to encourage creativity. Cencič (2014) believes that if a school wants to promote creativity, it must include a number of teaching methods in its teaching, including creative methods. We present the frequency of use of different teaching methods, along with teachers' views on the use of different teaching methods according to gender, years of service, level, and subject of teaching.

|          |                                 | Gender   |  | Years  | s of  | Level   | of  | Subje  | et of   |
|----------|---------------------------------|--|--|--|---|---|---|--|---|
| thod N x |                                 |  |  | service  |   | teaching  |   | teaching   |   |
|          |                                 | χ2   | р  | F  | р   | χ2  | р   | χ2   | р   |
| 194      | 3.59                            | 3.12   | 0.209  | 0.83   | 0.509   | 4.31  | 0.116   | 5.26   | 0.730   |
|          |                                 |  |  |  |   |   |   |  |   |
| 194      | 3.58                            | 1.84   | 0.398  | 1.07   | 0.374   | 1.77  | 0.413   | 6.39   | 0.604   |
|          |                                 |  |  |  |   |   |   |  |   |
| 192      | 3.48                            | 0.38   | 0.827  | 1.01   | 0.402   | 2.17  | 0.338   | 14.03  | 0.081   |
|          |                                 |  |  |  |   |   |   |  |   |
|          |                                 |  |  |  |   |   |   |  |   |
| 164      | 3.43                            | 0.54   | 0.909  | 1.03   | 0.393   | 11.73   | 0.008   | 9.99   | 0.265   |
|          |                                 |  |  |  |   |   |   |  |   |
|          |                                 |  |  |  |   |   |   |  |   |
| 191      | 3.42                            | 0.47   | 0.925  | 0.87   | 0.479   | 11.06   | 0.011   | 15.79  | 0.201   |
|          |                                 |  |  |  |   |   |   |  |   |
| 194      | 3.35                            | 0.92   | 0.820  | 1.61   | 0.174   | 2.33  | 0.507   | 3.01   | 0.933   |
|          |                                 |  |  |  |   |   |   |  |   |
|          |                                 |  |  |  |   |   |   |  |   |
|          | 194<br>194<br>192<br>164<br>191 | 194       3.59         194       3.58         192       3.48         164       3.43         191       3.42 | x         χ2           194         3.59         3.12           194         3.58         1.84           192         3.48         0.38           164         3.43         0.54           191         3.42         0.47 | x         χ2         p           194         3.59         3.12         0.209           194         3.58         1.84         0.398           192         3.48         0.38         0.827           164         3.43         0.54         0.909           191         3.42         0.47         0.925 | N $\bar{\mathbf{x}}$ servic $\chi^2$ p         F           194         3.59         3.12         0.209         0.83           194         3.58         1.84         0.398         1.07           192         3.48         0.38         0.827         1.01           164         3.43         0.54         0.909         1.03           191         3.42         0.47         0.925         0.87 | $\bar{x}$ $\chi 2$ $p$ $F$ $p$ 194         3.59         3.12         0.209         0.83         0.509           194         3.58         1.84         0.398         1.07         0.374           192         3.48         0.38         0.827         1.01         0.402           164         3.43         0.54         0.909         1.03         0.393           191         3.42         0.47         0.925         0.87         0.479 | N $\bar{x}$ $\chi 2$ p $F$ p $\chi 2$ 194         3.59         3.12         0.209         0.83         0.509         4.31           194         3.58         1.84         0.398         1.07         0.374         1.77           192         3.48         0.38         0.827         1.01         0.402         2.17           194         3.43         0.54         0.909         1.03         0.393         11.73           194         3.42         0.47         0.925         0.87         0.479         11.06 | N $\bar{x}$ $\chi 2$ p $F$ p $\chi 2$ p           194         3.59         3.12         0.209         0.83         0.509         4.31         0.116           194         3.58         1.84         0.398         1.07         0.374         1.77         0.413           192         3.48         0.38         0.827         1.01         0.402         2.17         0.338           192         3.48         0.54         0.909         1.03         0.402         2.17         0.338           194         3.43         0.54         0.909         1.03         0.393         11.73         0.008           194         3.43         0.54         0.909         1.03         0.393         11.73         0.008           191         3.42         0.47         0.925         0.87         0.479         11.06         0.011 | N $\bar{x}$ $\underline{\chi 2}$ p $F$ p $\chi 2$ p $\chi 2$ 194         3.59         3.12         0.209         0.83         0.509         4.31         0.116         5.26           194         3.58         1.84         0.398         1.07         0.374         1.77         0.413         6.39           192         3.48         0.38         0.827         1.01         0.402         2.17         0.338         14.03           164         3.43         0.54         0.909         1.03         0.393         11.73 <b>0.008</b> 9.99           191         3.42         0.47         0.925         0.87         0.479         11.06 <b>0.011</b> 15.79 |

 Table 2: Teachers' views on frequency of use of different teaching methods

#### **ISSN: 2582-0745**

Vol. 5, No. 05; 2022

| Encouraging a        | 191 | 3.31 | 4.28  | 0.233 | 0.21 | 0.934 | 4.24  | 0.236 | 11.12 | 0.519 |
|----------------------|-----|------|-------|-------|------|-------|-------|-------|-------|-------|
| large number of      |     |      |       |       |      |       |       |       |       |       |
| ideas                |     |      |       |       |      |       |       |       |       |       |
| Stimulating the      | 194 | 3.25 | 2.79  | 0.247 | 0.22 | 0.927 | 13.70 | 0.001 | 13.13 | 0.107 |
| imagination          |     |      |       |       |      |       |       |       |       |       |
| Interest in          | 195 | 3.21 | 1.48  | 0.477 | 0.89 | 0.466 | 13.71 | 0.001 | 9.92  | 0.271 |
| empirical thinking   |     |      |       |       |      |       |       |       |       |       |
| Encouraging          | 190 | 3.15 | 1.18  | 0.758 | 3.51 | 0.009 | 36.45 | 0.000 | 18.49 | 0.102 |
| curiosity            |     |      |       |       |      |       |       |       |       |       |
| Interest in rational | 190 | 2.84 | 2.68  | 0.443 | 1.39 | 0.239 | 2.41  | 0.492 | 4.13  | 0.845 |
| thinking             |     |      |       |       |      |       |       |       |       |       |
| Encouraging the      | 194 | 2.70 | 1.79  | 0.617 | 0.82 | 0.512 | 29.89 | 0.000 | 13.93 | 0.305 |
| learning of facts    |     |      |       |       |      |       |       |       |       |       |
| Copying from the     | 195 | 2.70 | 12.59 | 0.006 | 0.94 | 0.444 | 16.74 | 0.001 | 34.19 | 0.001 |
| board                |     |      |       |       |      |       |       |       |       |       |
| Lecturing on the     | 192 | 2.39 | 4.17  | 0.243 | 1.12 | 0.349 | 36.34 | 0.000 | 17.86 | 0.120 |
| material             |     |      |       |       |      |       |       |       |       |       |
| Questions with       | 195 | 2.06 | 4.37  | 0.224 | 2.35 | 0.056 | 27.57 | 0.000 | 24.97 | 0.015 |
| pre-formulated       |     |      |       |       |      |       |       |       |       |       |
| answers              |     |      |       |       |      |       |       |       |       |       |
| Dictating the        | 194 | 1.89 | 6.15  | 0.105 | 0.25 | 0.908 | 1.87  | 0.600 | 11.92 | 0.452 |
| material             |     |      |       |       |      |       |       |       |       |       |

From Table 2, we can see that in the frequency of use of creative teaching methods, according to gender, the only difference is in use of the method: "I encourage students to copy from the board". As many as (23.3%) female teachers use this method every day, while usage by male teachers is lower (13.3%). Such findings could be attributed to the fact that the majority of the male population who completed this survey questionnaire were sports teachers who conducted practical classes in the gym and rarely in the classroom with a blackboard. Based on this finding alone, it cannot be argued that female teachers use fewer creative methods than male teachers.

We found differences in the frequency of use of methods among teachers, depending on their years of service: "I encourage curiosity". Teachers with 21 years or more of service (x = 3.40) use the curiosity stimulation method several times a week or even every day, while novice teachers (x = 2.85) use this method several times a month. Teachers with less than 5 years of service use this method several times a week. We can conclude that expert teachers gain more experience over their years of teaching with motivating students than novice teachers. Cachia et al. (2010) also came to the same results in the study; they concluded that the greatest interest in creativity had experienced teachers. One reason may be that in our sample, teachers with several years of service mostly teach at the grade level, where the nature of the work is different, where there is less factual knowledge and more playfulness (Musek Lešnik, 2020). We also found a tendency among teachers

#### **ISSN: 2582-0745**

Vol. 5, No. 05; 2022

with different lengths of service to experience differences in the frequency of use of pre-formulated questions. Novice teachers (with less than 5 years of service;  $\bar{x} = 2.55$ ) use this method more often (several times a month or several times a week) compared to experienced teachers. Marentič Požarnik (2018) also writes that expert teachers have more organized knowledge, which enables them to act faster than novice teachers, who rely more on superficial knowledge and prefer to use already established procedures.

The research found that among teachers, depending on the level of teaching (grade, subject), there are also differences in the frequency of use of different teaching methods. Differences between grade and subject teachers occur both in methods that promote creativity in school and in methods that inhibit creativity in school. We found that class level teachers use more methods that encourage creativity (on a daily basis). They very often (4x per week) ask questions with multiple answers ( $\bar{x} = 62.7\%$ ), encourage cross-curricular connections of material ( $\bar{x} = 54.7\%$ ), and stimulate imagination ( $\bar{x} = 42.9\%$ ), curiosity ( $\bar{x} = 41.5$ ) and interest in students' empirical thinking ( $\bar{x} = 52.1\%$ ). Subject teachers, on average, are more supportive of the methods that we noted above that are indicators of inhibition of creativity in school. Thus, on average, subject teachers use more methods such as learning facts ( $\bar{x} = 38.7\%$ ), copying from the board ( $\bar{x} = 36.0\%$ ), lecturing ( $\bar{x} = 26.0\%$ ) and asking questions with predetermined answers ( $\bar{x} = 18.7\%$ ).

Table 2 also shows that there are differences among teachers of different subjects regarding the frequency of use of the method requiring "copying from the board". As many as 50.0% of science and social science teachers use this method every day, while teachers who teach art subjects on a daily basis do not use this method at all (0.0%). Similar findings were made by Šorgo (2011), who in his work analyzed selected basic documents and found that science teachers who would like to introduce more creative teaching methods into their classes cannot do so in an environment that does not support creativity. Another reason for these findings could be that the subject is structured differently in science than in art subjects. We also found differences in the frequency of use of the method among teachers who teach different subjects: "I ask questions with pre-formulated answers." A large proportion of teachers of science (62.5%) and social sciences (35.0%) use this method every day, while teachers of art subjects do not use this method at all (0.0%). We can assume that science subject teachers find it more difficult to use open-ended questions that allow for multiple correct answers, as science often already has a definite answer, while in arts subjects there are often several possible paths. There can also be a lot of active teaching (research, experimentation, experimentation) in science subjects, which teachers turn into traditional and fully guided teaching and thus deprive students of creative learning.

#### 3.3. Location and frequency of knowledge acquisition concerning creative methods

Teachers could choose one or more answers from the following answers to the question: "Where did you gain knowledge about different creative methods?" The results were as follows: a) I acquired knowledge in this field myself (methods, 57.1%); b) the school management organized

#### **ISSN: 2582-0745**

Vol. 5, No. 05; 2022

or sent me to workshops in this field (8.7%); c) I attended various training workshops and seminars (59.7%) and d) other. According to teachers, school management is not a place where teachers can gain knowledge about creative methods. Under option d) other, the respondents mostly mentioned that they gained knowledge about creative methods at faculties where they studied and in collaboration with colleagues on various projects.

Šorgo (2011) points out that all responsibility for promoting creativity should not be left to a specific teacher alone. The teacher's work is influenced not only by his education, motivation, attitudes, and personality traits, but also by the environment in which he teaches. For this shift to happen, a teacher needs a lot of knowledge, education, professional development, and properly oriented legislation that binds him to modern methods of work. It is not just about prescribing legislation but about educating the teacher to use many new methods and strategies (Šorgo, 2011). The Talis International Survey (2019) was created for this purpose. In a world of constant change, the teacher is expected to constantly adapt and educate in line with the new strategies offered to equip students with the competences they need now, as well as in the future, to achieve their goals if they want to be successful in life.

| Frequency of attending | Gender |       |       |       | Level of<br>teaching |       | Subject of<br>teaching |       |
|------------------------|--------|-------|-------|-------|----------------------|-------|------------------------|-------|
|                        | χ2     | р     | t     | F     | χ2                   | р     | χ2                     | р     |
|                        | 4.69   | 0.196 | 0.076 | 0.989 | 1.54                 | 0.672 | 15.16                  | 0.004 |

#### Table 3: Teachers' views on frequency of attending creativity seminars

Teachers could choose among several answers to the question: "How often do you attend various training workshops on the topic of creativity?" The results were a) every year (43.4%); b) every 5 years (30.6%); 15.8%, do not remember any training in the field of creativity, and 7.7% who had never attended such training. We found no difference between teachers regarding gender, years of service and level of teaching. Female or male teachers, novice or experienced, teaching at the grade or subject level, are all aware of the importance of lifelong learning and, to this end, mostly attend creativity training sessions each year.

Among teachers who teach different subjects, we found differences in the frequency of participation in various seminars on creativity. Teachers of language subjects (58.3%) and teachers of science subjects (55.0%) mostly attend training every year. Social science teachers chose to attend training every 5 years, as the most common answer. There are 62.5% such teachers. That education about creativity is never attended is surprising in the proportion of teachers who teach the subject of art: 28.6%.

### 4. CONCLUSIONS

#### **ISSN: 2582-0745**

Vol. 5, No. 05; 2022

In this paper we explored the views of Slovenian primary school teachers on promoting creativity in the classroom, the use of different methods for promoting creativity, the place and frequency of knowledge acquisition on the topic of promoting creativity and specific examples of promoting creativity in the classroom, depending on gender, age, level, and subject matter.

By analyzing the results, we found that teachers have a mostly positive attitude towards encouraging creativity in the classroom. We also found that grade level teachers are more supportive of creativity than subject teachers and teachers of language and art subjects more than teachers of science and social science subjects. Differences in the frequency of use of creative teaching methods, according to gender, appear only in the use of the method: "I encourage copying from the blackboard", which is used more often by female teachers compared to male teachers. We attribute these findings to the fact that most of the male teachers involved in the research teach sports and are rarely in front of a blackboard. Also, expert teachers are more likely to "encourage curiosity" than novice teachers. We can conclude that expert teachers gain more experience over their years of teaching in motivating students and have the courage to be autonomous in their work. Another reason could be that in our sample, teachers with several years of service mostly teach at the grade level, where, as already established, the nature of the work is different. The methods "Copying from the board" and "I ask questions with pre-formulated answers" are used every day by many teachers of science and social sciences; in contrast, those who teach art subjects daily do not use these methods at all. Teachers most often chose the answer that they had acquired knowledge in the field of creativity at various trainings and seminars and that teachers themselves are engaged in acquiring knowledge about creative methods of work. According to them, the school management does not encourage them to do so. Teachers of language science subjects attend training on the topic of creativity every year, whereas social science teachers every 5 years, but it is surprising that art teachers do not attend these kinds of seminars.

Finally, we asked teachers about their own actual examples of creative teaching. Only a few cited concrete examples, which we grouped together under descriptions, creative methods, and open-ended questions.

#### REFERENCES

- Ahmadi, N., & Besançon, M. (2017). Creativity as a Steppingstone towards Developing Other Competencies in Classrooms. *Education Research International*, 2017(2), 1-9.
- Beghetto, R. A., & Kaufman, J. C. (2014). Classroom Contexts for Creativity. *High Ability Studies*, 25(1), 53–69.
- Busharian, O. (2020). Introduction and Summary of Principal Recommendations. Adapting Curricula and Study Materials for the 21st Century. Retrieved from: https://www.academia.edu/49268058/Adapting\_Curricula\_and\_Study\_Materials\_for\_the \_21st\_Century\_Introduction\_and\_Summary\_of\_Principal\_Recommendations

#### **ISSN: 2582-0745**

Vol. 5, No. 05; 2022

- Cachia, R., Ferrari, A., Ala-Mutka, K., & Punie, Y. (2010). *Creative learning and innovative teaching: final report on the study on creativity and innovation in education in the EU member states.* Spain, Seville: Institute for Prospective Technological Studies.
- Callahan C. M., & Missett, T. C (2011). Creativity in Adolescence. In M. Runco, & S. R. Pritzker (Eds.), *Encyclopaedia of Adolescence* (115–123). San Diego, USA: Academic Press, Calif.
- Cankar, F., Likar, B., Zupan, B., & Deutsch, T. (2015). O ustvarjalnosti, inovativnosti in podjetnosti. V F. Cankar, & T. Deutsch (Eds.), *Mladi, šola in izzivi prihodnosti* (30-39). Ljubljana: Zavod RS za šolstvo.
- Cencič, M. (2014). Spodbujanje ustvarjalnosti v šoli z učnimi metodami. V D. Hozjan, *Izobraževanje za 21. stoletje - ustvarjalnost v vzgoji in izobraževanju* (163-176). Koper: Univerzitetna založba Annales.
- Creativity in Schools in Europe: A survey of Teachers. (2009). Retrieved from: https://www.pef.uni-

lj.si/fileadmin/Datoteke/CRSN/branje/Creativity\_in\_Schools\_in\_Europe\_A\_Survey\_of\_T eachers\_\_2009\_.pdf

De Bono, E. (1998). Naučite svojega otroka misliti. Maribor: Rotis.

- De Bono, E. (2021). Lateralno mišljenje. Maribor: Rotis.
- *Dictionary of Slovenian Literary Language (Slovar slovenskega knjižnega jezika,* 1994). Retrieved from: http://bos.zrc-sazu.si/sskj.html
- Elmore, R., & Sykes, G. (1992). Curriculum policy, in: P. Jackson (Ed.) *Handbook of research on curriculum (185-215)*. New York: Macmillan.
- Fatur, P., & Likar, B. (2009). Vključevanje zaposlenih v inoviranje kot vir trajne konkurencne prednosti. *Management 4(3)*, 243-257.
- Gibb, A.A. (2002). In pursuit of a new entrepreneurship paradigm for learning: creative destruction, new values, new ways of doing things and new combinations of knowledge. *International Journal of Management Reviews*, 4(3), 233-269.
- Guilford, J. P. (1950). Creativity. American Psychologist, 5, 444–454.
- Hargreaves, A., & Fullan, M. (2000). Mentoring in the New Millennium. *Theory Into Practice*, 39(1), 50-56.
- Hozjan, D., Zorman, M., Rutar, S., & Saksida, I. (2014). *Izobraževanje za 21. stoletje-ustvarjalnost v vzgoji in izobraževanju*. Koper: Univerzitetna založba Annales.
- Ivanuš Grmek, M., & Ivajnšič, A. (2016). Pomen učiteljevih pojmovanj in prepričanj za profesionalni razvoj učiteljev. *Revija za elementarno izobraževanje, 2(2/3)*, 89-104.
- Jakopec, F., & Likar, B. (2009). Kultura inoviranja kot ključni dejavnik trajnostnega razvoja šole. *Trajnostni razvoj v šoli in vrtcu 3(1)*, 31-37.
- Javornik Krečič, M. (2008). Pomen učiteljevega profesionalnega razvoja za pouk. Ljubljana: I2.
- Juriševič, M. (2012). Motiviranje učencev v šoli. Ljubljana: Pedagoška fakulteta.
- Keong, Y. (2008). Vsi smo ustvarjalni. Dopustite svoji ustvarjalnosti, da razcveti! Varaždin: Katarina Zrnsi.
- Kozina, J. (2016). Življenjsko okolje ustvarjalnih ljudi v Sloveniji. Ljubljana: ZRC.
- Kozmus, A. (2016). The Overall Child's Development in Slovenian Elementary Schools. In V. Afrić (Ed.). *Knowledge Society and Active Citizenship: Collection of Papers* (57-67). Varaždin: University North.

Kroflič, R. (1997). Avtoriteta v vzgoji. Ljubljana: Znanstveno in publicistično središče.

#### **ISSN: 2582-0745**

Vol. 5, No. 05; 2022

- Kroflič, R. (2001). Ali lahko govorimo o ustvarjalnosti, pogojeni z avtoriteto? Vzgoja in izobraževanje, 32(4), 42-48.
- Kunc, P. (2016). Pogledi učiteljev na inovativnost in ustvarjalnost. *Vzgoja in izobraževanje*, 47(2), 36-42.
- Lucariello, J. M. (2019). Dvajset najpomembnejših psiholoških načel za poučevanje in učenje ustvarjalnih, talentiranih in nadarjenih učencev od vrtca do srednje šole. Ljubljana: Pedagoška fakulteta.
- Majerle, M. (2010). Vpliv vzgoje in drugih družinskih dejavnikov na razvoj ustvarjalnosti. *Panika*, *15*(1), 20-22.
- Makarovič, J. (2003). *Antropologija ustvarjalnosti: biologija, psihologija, družba*. Ljubljana: Nova revija.
- Marentič Požarnik, B. (2018). *Psihologija učenja in pouka: od poučevanja k učenju*. Ljubljana: DZS.
- Musek Lešnik, K. (2020). *Pozitivna psihologija in pozitivna edukacija*. Retrieved from: https://www.abced.si/post/radovednost-ustvarjalnost-inovativnost-kaj-lahko-predam-mojim-otrokom-in-u%C4 %8Dencem
- Pečjak, S., & Peklaj, C. (2015). *Psihosocialni odnosi v šoli*. Ljubljana: Znanstvena založba Filozofske fakultete Univerze v Ljubljani.
- Pečjak, V. (2002). Ustvarjalnost v šoli. V B. Likar, *Uspeti z idejo! Tehnike in metode ustvarjanja, razvoja in trženja idej* (123-132). Ljubljana: Korona plus.
- Petrović, Z. (2015). Kreativne in inovativne metode poučevanja. Vodenje v vzgoji in izobraževanju, 13(3), 103-115.
- Požar Matijašič, N., & Bucik, N. (2008). *Kultura in umetnost v izobraževanju popotnica 21. stoletja*. Ljubljana: Pedagoški inštitut.
- Robinson, K., & Aronica, L. (2015). Creative Schools the grassroots revolution that's transforming education. Nova Gorica: Eno, Penguin Books.
- Sadar Šoba, N. (2014). Ustvarjalni gib: ustvarjalnost v gibanju. Didakta, 24(171), 8-13.
- School Leadership in Europe: Issues, Challenges and opportunities: ETUCE School LeadershipSurvey.(2012).Retrievedfrom:https://www.csee-etuce.org/images/attachments/SchoolLeadershipsurveyEN.pdf
- Simonton, D. K. (1994). Greatness: Who makes history and why. New York: Guilford Press.
- Simonton, D. K. (2000). Creativity: Cognitive, Personal, Developmental, and Social Aspects. *American Psychologist, Vol.* 55(1), 151-158.
- Šorgo, A. (2011). Ustvarjalnost in inovativnost: manjkajoči sestavini naravoslovnega izobraževanja. *Vzgoja in izobraževanje*, 42/43(6/1), 60-65.
- Talis International Survey (2019). Retrieved from: http://talispei.splet.arnes.si/files/2019/06/Talis-2018-Slovenija.pdf
- Trunk Širca, N. (2002). Uspeti z idejo! Tehnike in metode ustvarjanja, razvoja in trženja idej. V Z. i.-n. šole, Uspeti z idejo! Tehnike in metode ustvarjanja, razvoja in trženja idej. Ljubljana: Korona plus.

Woolfolk, A. (2002). Pedagoška psihologija. Ljubljana: Educy.