

# Teachers' Viewpoints on Creative Movement in Teaching

**Vesna Geršak and Simona Tancig**

*Educational practices exist in which teachers and students literally move around ideas, using the most universal, but severely underused educational tool available to us at all times – the body. This method of teaching and learning, through movement and the body, is the subject of this paper. Recent research of embodied cognition in various cognitive areas of education has important implications for learning and teaching and supports the wider integration of movement activity into curricula content (learning through movement). Creative movement method is one of teaching and learning approaches, which emphasizes the use of movement and dance in learning. The main goal of our research was to determine teachers' ideas and viewpoints on creative movement in teaching and to document the student outcomes noted by teachers before and after attending the educational program. The sample included 112 teachers from various regions of Slovenia, who all took part in the creative movement educational program. The program was designed and executed as continuing professional development for education practitioners. Quantitative and qualitative research approaches were employed. The main results show that the creative movement educational program encouraged teachers' positive attitude towards teaching with and through movement and dance. After the educational program, the teachers' attitudes towards using creative movement in classrooms, changed in favor of holistic and experiential teaching and learning. Improvement in the teachers' well-being was detected. Additionally, teachers reported the positive effects of this teaching method in the social-emotional and cognitive development of the children in their classes.*

From our own experience and from observing examples of good practice, it is clear that the use of creative movement in the classroom positively affects all areas of a child's development – cognitive, social-emotional and psychomotor (Geršak, 2016). We have noticed, however, that creative movement as a teaching method is not widespread in Slovenian schools, even though it offers many positive effects.

Because of the lack of systematic teacher training in this method, many teachers express the need for additional knowledge in this area by showing

interest in various seminars and professional gatherings. For many years, the author has conducted seminars, professional and academic meetings and conferences to increase teacher knowledge about creative movement. From the author's experience, this kind of exposure to learning about creative movement has a great impact on teachers' attitudes towards this approach and contributes to the integration of creative movement into the classroom.

In order to prepare a quality educational model for teachers and guidelines for teaching with creative movement, we need to do an in-depth empirical investigation of teachers' beliefs, attitudes and knowledge, and the way in which they use movement in the classroom. Through this research, we seek to ascertain the extent to which teachers believe that they can influence the behavior, understanding and well-being of pupils while using creative movement as a teaching approach, and how they foresee its inclusion in their work. Additionally, teachers' perceived well-being during creative movement integration was observed. For this reason, we prepared an education program that included theoretical basics as well as practical activities of creative movement integration in language, mathematics, science, social studies and art, which we used to educate a group of teachers in using creative movement for various classes in schools.

Based on the resulting insight into cognition of a teacher, in conjunction with the implementation of creative movement in the educational process in various subjects, we will be able to create guidelines for the future education of teachers. The results will also help us prepare a model for the implementation of creative movement in teaching.

### **Movement Integration in School Curriculum**

By integrating movement and dance activities into the educational process, we establish a holistic method of teaching. In this way, teaching can become an integrated process of perception, movement and cognition that activates the student's physical, emotional and intellectual abilities.

According to scientific evidence about the relevance of sensorimotor activities and interactions with the environment for learning it would be necessary in education to put more emphasis on sensorimotor activities integrated into curricula contents, aligned with so-called "learning with movement" or "learning through movement", which are already developed or under development, and are resulting in a more durable and richer knowledge (Tancig, 2015; Goldin-Meadow, 2014; Moeller et al., 2012; Fischer et al., 2011).

In light of recent findings in cognitive science that emphasize the meaning of movement in terms of perception, imagination, thought, communication, cognitive development, emotions and consciousness (according to Gibbs, 2010), empirical evidence from some of the aforementioned areas supports the close connection between a person's movement activity and their psychological processes (ibid.). Both Piaget

(1926, 1952) and Maria Montessori (1988) emphasized the fact that the mind also develops through physical activity, while newer research has started highlighting the human body (and its movement). Gibbs (2010) believes that a child's perception and cognition start with and are based on embodied action. Learning through movement plays "an important role in understanding theoretical concepts and knowledge, and it is a very good motivator" (Tancig, 1987). This is where the perception of your own body and the perception of others' bodies combine, which manifests as an embodied dialogue (Antilla, 2015). "The body is an extension and informant, a moving sensorium in a fluid duet with the brain" (Hanna, 2015, p. 168).

Movement is a component of several educational programs or pedagogies, an example of which is *eurhythm* – created by Rudolf Steiner – in which movement is a psychomotor element of Waldorf pedagogy. This method combines with voice, literary texts or instrumental music to create a form of expression. It has a movement system, with set forms, each of which is anthroposophically justified. An individual's creative improvement is only possible in terms of the given forms (Kroflič, 1999). In *Wambach's convergent pedagogy*, physical and musical expression (the physical expression of music) are the starting points for various drama activities, play-acting, creating text and creative writing. It uses drums to aid the development of spatial orientation, lateralization, and rhythm, while also encouraging positive communication and group creativity. This method combines activity, thought, body and spirit into a holistic method for teaching language, art, mathematics and other subject areas. The body is presented as an important source of knowledge about oneself and others, as a center of communication and as a vital part of the physical experience of learning (Wambach and Wambach, 1999). The *Total Physical Response* method was created by James Asher for the purpose of teaching languages. It is based on the theory that memory is strengthened through associations gained by physical activity. This method encourages the use of the body to express language content, which makes it easier for children to understand and remember language structures. Movement is also accorded an important place in *Montessori pedagogy*, where children gain knowledge through using their hands (writing letters in sand or on sandpaper), by manipulating various objects and through movement. Overby (2014) developed learning design with the project that integrated dance into the curriculum (*arts integration*) and linked experiences, reflection, thinking, and activity. Her students have been engaged in a creative process, which connected an art form and another subject matter, and meeting objectives in both. "Dance learning is a way of knowing, thinking, translating, interpreting, communicating, and creating thought" (Hanna, 2015, p. xii).

We could list various movement activities and motor training programs that contribute to a child's social-emotional, cognitive and psychomotor development. Movement activities are an important factor in sensory development since children in preschool are already using movement to explore their environments. Therefore, motor activities become an incredibly

effective way of learning various theoretical concepts and phenomena at a base level, which later on provides the foundation for abstraction (Tancig, 1987). Movement activities also encourage awareness of the body, of space and time dimensions, and of other sensory areas (visual, auditory, kinesthetic). A variety of movement exercises and games can be used to explain the following concepts to children in a concrete way: quantitative concepts and operations (like hopscotch), geometrical concepts (creating mathematical shapes with the body), movement activities related to science (using a ball to represent electrical currents while passing it among children), and movement games used to encourage a child's language development (movement stories). All of these approaches are active, experiential ways of learning that also support the physical experience of learning and enable dance integration into a school curriculum (Tancig, 1987; Griss, 1998; Kroflič, 1999; Overby, Post and Newman, 2005; Minton, 2008; Geršak, 2013).

### **Creative Movement Method as a Learning Process**

In primary and secondary schools in Slovenia, dance elements are included in the curriculum only as sub-unit of other subjects (e.g. physical education and music education). Even so, dance elements are used as a tool for learning at these levels of education – as a teaching approach for enhanced learning in language, science, mathematics, social studies and visual arts. Joyce (1994, p.193) called this a “reverse lesson plan”, because science, mathematics or language are subjects being taught, and dance becomes the “helper”.

Kroflič (1999, p. 127), defines the creative movement as “a method of learning in which children use movement to express, shape and create varied educational content. Movement within the educational process can be functional, i.e., used for certain everyday work or sports activities. It can also be creative, which means that it “is used to create movement forms, is a means of expressing one's inner world and of reliving inner and outer worlds (as well as educational content), all as a component of holistic learning” (Kroflič, 1999, p. 143). In creative movement, students make movement choices about how they will use their bodies to express ideas and concepts (Donovan and Pascale, 2013). Creative movement can be integrated in all school subjects; from learning the water cycle and multiplication table to learning foreign words and road signs. The rationale of this approach emphasizes that creative movement activities should encourage students to explore gestures, invents their own moves and generate links in order to create movement. In addition to its appearance and shape, movement is important for its message and expressiveness, and the fact that it unifies students during the process of creation.

Creative movement as a teaching method can be placed within the concept of active and experiential learning because it encourages the student's active emotional and social experience, and cognitive and psychomotor development. It uses group problem solving and the transferal of experiences

to an abstract level to create new knowledge, which it also reflects. This method encourages activities that promote integrated, holistic child development, while taking into account their emotional needs (safety, acceptance and self-advocacy), emphasizing relaxed, close relationships, and removing negative emotions (fear, anxiety). It bonds the child's intellectual development with their social-emotional development, physical movement, and aesthetic and ethical development. This approach wholly includes the experiential side of learning (Marentič Požarnik, 2008, p. 287).

The impact of learning through movement is reflected in all areas of a child's development, since creating through movement holds an important role in shaping one's perception of oneself, developing peer connections and group cooperation, as well as in facilitating an easier and longer-lasting understanding of the given subject matter (Tancig, 1987; Kroflič, 1999; Kroflič, 2002; Geršak, 2007; Geršak, 2014). The systematic use of creative movement enables self-expression, cooperation, in-group problem solving, mutual respect, tolerance and friendship (Geršak, 2016).

In this paper a study is described, which was undertaken: i) to observe teachers' attitudes, views, knowledge and use of creative movement in their educational work, ii) to document the children outcomes noted by teachers, and iii) to study the impact of the workshop on their teaching.

## Research Study

### Participants

Our sample of teachers was chosen intentionally. We included teachers who took part in workshops – *Learning and teaching through dance-movement activities* and *Creative movement as a teaching method* – at the Faculty of Education at the University of Ljubljana, both of which were tendered in the Catalogue of continuing education and training for professionals in education, approved annually by the Ministry of Education, Science and Sport. The sample on which we based our analysis comprises the 112 primary school teachers from ten different regions of Slovenia who were involved in both the first and second measurements from April 2012 to May 2013.

### Procedure

The workshops included the theoretical basics of creative movement and interactive lectures, as well as practical workshops, which followed Kolb's model of teaching with reflection on one's own work. During the workshops, the teachers used their own exploration to create views on creative movement and found innovative ways of including this type of work in their classrooms. After each session, they used their newly learned ideas about creative movement in practice. In the classroom, they tested and developed different creative movement activities in all school subjects and in various organized

ways. At the same time, they reflected on their own work and noted the students' reactions. After several workshops, (these were composed of multiple parts with lengthy periods of time in between for the teachers to be able to use creative movement) the teachers mutually shared their observations. Over the course of the workshops, we discussed some of their dilemmas and tried to recreate them using movement activities. In this way, we were able to integrate the participants' needs into our planned model of education.

### **Instruments**

The main section of our research included a battery of questionnaires that we used to observe the teachers' attitudes, views, knowledge and use of creative movement as a teaching method before and after the workshops.

We combined the questionnaires so that each teacher only had to fill out one questionnaire before and one after the workshop. These questionnaires consisted of the following content sections:

- A questionnaire on the teachers' attitudes towards and views on creative movement as a teaching method.
- A questionnaire on the teachers' use of creative movement as a teaching method and their feelings while using creative movement method in their class.

### **Research Methods**

We used a combination of quantitative and qualitative research methods in our research, with an emphasis on the quantitative methodology. This constitutes a triangulation of methods (see Flick, 2006), which contributes to the greater internal and external validity of the results during the collection and analysis of gathered information.

We approached this study topic using a test – a posttest for one of the groups – before and after the participants attended a workshop on the use of creative movement as a teaching method (a predictor variable). We used paired t-test to test the statistical significance of differences before and after the attendance of the workshop. The questionnaires included also open-ended questions, for which we employed qualitative data analysis. When analyzing the open-ended questions, we implemented a qualitative analysis of the materials: statement coding and categorization, category naming, and material interpretation (based on Silverman, 2001; Flick, 2006). We used open coding to interpret the answers (open codes, short descriptive words or phrases for describing the answer's contents), in order to create a variety of content categories. We also presented certain typical as well as interesting or surprising answers to aid in the understanding of our findings.

## Results

### **The teachers' views on using creative movement in their educational work**

The teachers' attitudes towards creative movement changed in favor of holistic and experiential teaching and learning after the workshops. The differences in views on creative movement were statistically significant, when we took into account the answers before and after the workshop. All of the participants' views on creative movement, from the perspective of the teacher ( $F = 37,027$ ;  $p < 0,001$ ), the cognitive perspective ( $F = 86,157$ ;  $p < 0,001$ ) and the social-emotional perspective ( $F = 5,521$ ;  $p < 0,05$ ) statistically improved in favor of holistic and experiential teaching and learning.

The paired t-test analysis showed that the teachers' views on the role of movement activities when used with students with varying educational success changed in favor of holistic and experiential teaching and learning.

### **The ways in which creative movement is used in educational work**

There were statistically significant differences in the frequency of use of creative movement in Slovenian language ( $t = -2,871$ ;  $df = 59$ ;  $p < 0,01$ ), mathematics ( $t = 3,723$ ;  $df = 60$ ;  $p < 0,001$ ) and science ( $t = -2,527$ ;  $df = 58$ ;  $p < 0,05$ ), in which creative movement was used statistically more often after the workshop. The outliers are art class and social studies, where its use did increase but there were no statistically significant differences.

The results of the paired t-test indicated that statistical differences were found in the frequency of implementation of various creative movement activities, especially in the use of relaxation activities, which were used more often after the workshops ( $t = -2,031$ ;  $df = 78$ ;  $p < 0,05$ ). The workshops also encouraged the use of creative movement for the explanation/understanding of subject matter ( $t = 3,749$ ;  $df = 76$ ;  $p < 0,001$ ), the consolidation of knowledge ( $t = 4,454$ ;  $df = 75$ ;  $p < 0,001$ ), student motivation ( $t = 3,127$ ;  $df = 78$ ;  $p < 0,01$ ) and grading ( $t = 2,46$ ;  $df = 78$ ;  $p < 0,05$ ), since the teachers used these statistically far more often after the workshop.

Based on the value of the Euclidean distance, we used a hierarchical procedure to find that we can divide the use of creative movement into the following two possible types:

- 1) creative movement as a means of gaining and consolidating knowledge;
- 2) creative movement as a means of developing social-emotional skills.

### **The teachers' views on the role of movement activities when used with students with varying educational success**

Even before the workshops, most teachers stated that children generally react positively to movement activities, since almost half (49.4 %) rated their

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responses with a 5 (out of 5), while 31.2 % rated their responses with a 4. Only 16.9 % of teachers rated the children's response as neutral (with a grade of 3), and 2.6 % rated their response as negative (with a grade of 2).

After the workshops, the teachers evaluated the children's reactions with a higher result of statistical significance in comparison to the questionnaire before the workshops ( $t = -4,563$ ;  $df = 75$ ;  $p < 0,001$ ). Before the workshops, the average rating of the children's reactions was 4.29, while after it was 4.71.

The results of the qualitative analysis also point to the students' positive reactions, and are divided into the following three categories: i) the social-emotional, including the categories of well-being, relaxation and socialization; ii) the learning related (cognitive), including the categories of motivation, knowledge, creativity, concentration; and iii) the section on children's reactions, including the categories of student activity, method acceptance, method non-acceptance, difficulties, where negative reactions on the part of the students are the minority (Table 1).

**Table 1.** *Examples of teachers' answers.*

<b>The social-emotional category</b>	<b>The learning related (cognitive) category</b>	<b>Children's reactions category</b>
<i>"./.../ it gives the children the feeling of safety – they can express themselves in their own way."</i>	<i>"The movement improved the children's attention during the following tasks."</i>	<i>"All were involved, without exception." "Students were excited about new ideas."</i>
<i>"Every time we work with children, there is a different atmosphere. These relationships form differently every time ./.../ they work harmoniously."</i>	<i>"Their ideas surprised me. I wouldn't think of them myself." "It helped with the development of things that wouldn't have developed otherwise."</i>	<i>"Even older students, fifth graders were impressed by such learning."  "Even those who have problems with self-regulation were included in the group."</i>
<i>"It's a special chemistry that happens in a different, intangible sphere, ./.../ there is a special chemistry between what we are, either teachers or students, and all of our individual personalities and the qualities we offer."</i>	<i>"Movement aids a child's memory and creativity." "The knowledge really sticks. You can see progress".  "It's something you never forget. You just know. ./.../ because you lived it, something lasts."</i>	<i>"At the beginning the children were a little reluctant, then they relax and enjoy increasingly." "Students are guesses, and I can hardly slowed down again."</i>

**What impact did the workshop have on the way the teachers now teach, and how do they feel about using creative movement in the classroom**

Most of the teachers (94.6 %) who took part in the workshops on creative movement stated that the workshops affected the way they now teach. The teachers stated that after the workshops they gained a new view on teaching, they started using the new techniques regularly in their classes, and they started using movement activities to enrich their classes – the workshops encouraged the teachers to use more active methods of teaching. They gained knowledge and new ideas by using creative movement in practice (ex. *“Primarily as encouragement and the argument that teaching should not only happen with students sitting at their desks or on the carpet but that various movement activities can be used to gain the same or even better results”*).

The workshops also had an effect on certain aspects of the teachers' psychological wellbeing; it benefitted their confidence, wellbeing, and personal growth and gave them the feeling that what they were doing was beneficial (ex. *“The greatest satisfaction was in seeing the children doing the activities that I prepared and having fun, expressing their imaginations, all while learning”*). The teachers highlighted the meaning of these workshops for their own knowledge, creativity and motivation to teach.

After the workshops, almost two-thirds of the teachers (64.9 %) stated that they felt very good using creative movement with children, while a high percentage of them (29.7 %) said they felt good using this method. The differences the teachers' experienced working with children before and after the workshops are statistically significant ( $p < 0.001$ ). Before the workshops, their average rating of wellbeing was 4.25, while after the workshops it was 4.70, which we assess as a very high score.

## Discussion

Creative movement is a holistic teaching method since it encourages the students to hold an active role in class, to participate and to solve problems in a creative way. We define it as a collaborative way of teaching because knowledge is acquired in a social context. Tancig and Kordeš (2010) discuss student participation in group discussions and negotiation a compromise in collaborative methods of teaching. Creative movement activities often include children receiving group tasks or problems, which they need to solve through collaboration in the form of movement. Each group then presents its ideas to the other groups. Peklaj (2001) believes that collaborative teaching encourages children to take an active role in their own education, while they are taught various strategies and processes for problem-solving and end by gaining social skills. Based on our experience and the results of our research, including creative movement in class enables the development of said competencies. Encouraging student-student and teacher-student dialogue (both verbal and non-verbal) connects the students into a community, where they are given the

chance to present their ideas and hear others' ideas in return. Rutar (2013) highlights the fact that dialogue is characterized by self-expression, as well as expression of one's feelings and views. When seeking physical solutions, it is important to remember to encourage the child to express themselves and to take part in the dialogue, where there is no right answer: this method is directed towards success, since there are no wrong movements in a child's self-expression.

The impact of creative movement on a child's social-emotional development has been proven in previous studies (Kroflič, 1999; Griss, 1998; Skoning, 2008; Geršak, 2007), and at the same time, the teachers in our study emphasize the way in which creative movement is beneficial for a child's wellbeing (and the teacher's) and for establishing good interpersonal relationships. This is why we can place creative movement among the teaching methods advocated by positive psychology, in connection with the students' wellbeing and the elements of psychological wellbeing that the teachers highlighted in our study. Positive psychology is the pursuit of understanding optimal human functioning and well-being.

This method also encourages the students' and teachers' creativity (Kroflič, 1999), and is based on learning with and through art. Renfro (1982, p. 15) believes "that the inclusion of activities from the aesthetic-creative area (such as theater, movement, music, and puppets) greatly increases the efficiency of traditional teaching". This is also confirmed by the opinions of the teachers who were included in our study.

Another argument in favor of including creative movement in the classroom is the children's physical activity. Obesity in children in the United States has tripled in the last thirty years (ArtsEdge, 2013). The integration of movement into teaching contributes to flexibility, agility, coordination, spatial awareness, expression and motor skills, and it is an activity that can also include children with disabilities (ibid). Creative movement is a "universal language that also allows for alternative ways of determining the students' understanding of class topics" (Fowler, 1994), especially in children who have difficulties with communication (e.g. stuttering) or learning disabilities.

In addition to these kinesthetic and physical benefits, Griss (2013) believes that creative movement also positively affects the cognitive and social-emotional areas of development, since movement aids in the learning processes in the brain, enables expression, non-verbal creation, attention, perseverance in learning and self-exploration, while increasing self-trust, interpersonal relationships, emotional experiences, creativity and the development of collaborative skills.

The teachers believed that this type of teaching offered holistic, harmonious development and the development of social competencies, while encouraging affective development, imagination, creativity and a positive class atmosphere. The advantages of this type of teaching can also be found in the cognitive field, where the emphasis is on gaining longer-lasting knowledge and communication skills. It is important to note that integrating movement

into the classroom encourages the teacher to change their own teaching methods, while also encouraging innovation and personal growth.

### **Conclusion**

More than half of the teachers in our study (58.9 %) had very little or no experience with creative movement before the workshops, which points to the unsystematic education of teachers in this teaching method. As a result, Slovenian teachers are not familiar with creative movement as a teaching method. Our workshops had an important effect on increasing the level of knowledge about this method and, consequently, on the use of this method. In practice, increasing interest is being shown in this type of workshop, which is why it would be prudent to think about a more in-depth study of this area within regular study programs.

All of the groups of teachers improved their attitudes towards creative movement after the workshops. The most perceptible change in attitude towards holistic learning could be noted in teachers who had had no previous knowledge of or experience in creative movement.

After the workshops, the teachers showed the most agreement with the three statements about the children's cognitive aspect: i) teaching with creative movement enables a better understanding of the given subject matter and longer-lasting knowledge, ii) works as motivation and increases students' attention, and iii) affects their imagination and creative thought processes. The teachers believed that using creative movement also boosted the children's social-emotional development. Namely, they believed that this method encourages the development of a child's confidence and enabled them to relax while affecting their relationships and their wellbeing.

The teachers highlighted the fact that integrating creative movement into their classes made them change their teaching strategies, while also affecting their personal growth, satisfaction and enjoyment of teaching, which are all indicators of psychological wellbeing.

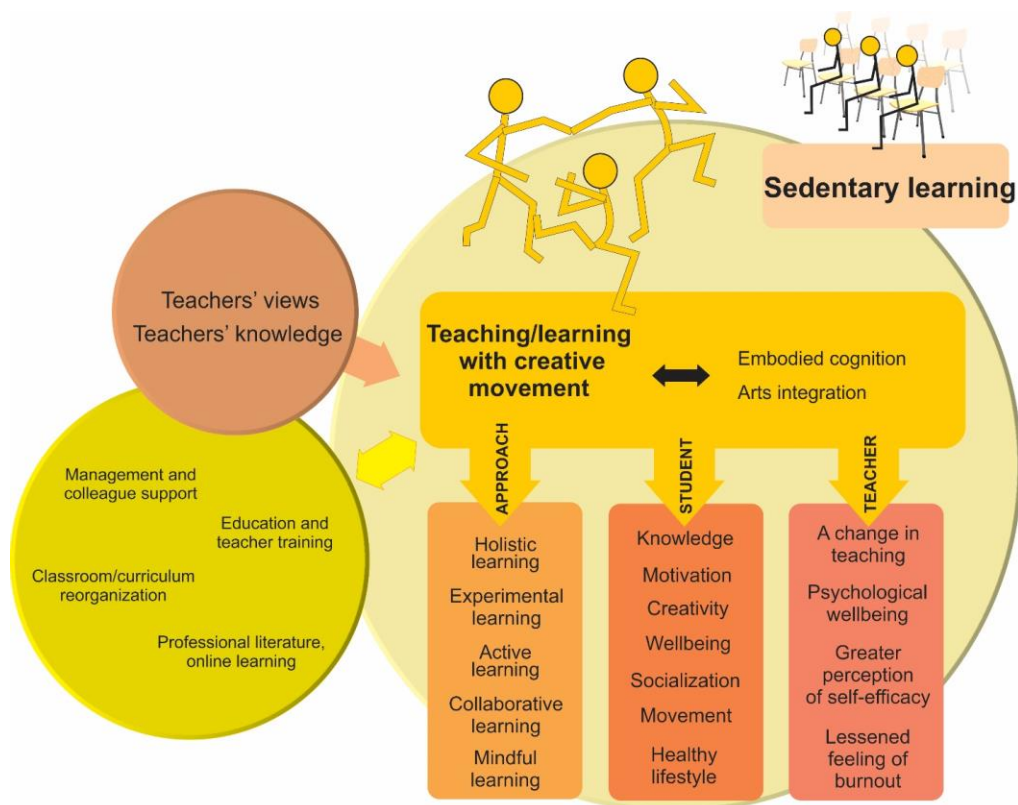
After the workshops, the teachers' methods and frequency of integrating creative movement into their classes changed in the direction of holistic and experiential teaching and learning. After the workshops, the teachers often used creative movement to teach new subject matter, to consolidate knowledge and to test knowledge gained. Previous studies showed that teachers mostly used creative movement to motivate and relax students, while its use in other areas was negligible (Geršak, 2007), which is why our findings are very encouraging.

The teachers stated that after the workshops they mostly used creative movement in music class, Slovenian language class, mathematics and science, while they did not use it quite as frequently in art class or social studies. Further workshops will therefore need to focus more on the latter areas.

The students' reactions to creative movement were decidedly positive, even before the workshops took place. After the workshops, the teachers' answers about students' attitudes were statistically significantly more positive than before the workshops. The qualitative analysis of the teachers' answers also confirmed this. These results are consistent with other studies from this field that reported high student motivation, good subject understanding and student wellbeing (Geršak, 2007; Griss, 2013; Anttila, 2015).

We can conclude that integrating creative movement into the classroom makes learning more meaningful, because the students connect their physical, emotional and cognitive understanding of the subject matter with their contextual surroundings, which aids in the process of remembering. We can say that the effects of creative movement are expressed on physical, cognitive, behavioral, emotional, social and artistic levels of learning. It is necessary to stress that the positive effects, as stated by the teachers, are visible not only in the students, but also in the teachers. Certainly, it is important for the teacher to feel positive about creative movement to successfully integrate it into their classes. The teachers also mentioned other important factors, such as management and colleague support, as well as curriculum flexibility and spatial organization within the classroom. We believe that in future it should be obligatory for teachers to be acquainted with creative movement in the form of workshops, even if they do not have a natural affinity towards this method of teaching. The method's recognition could be improved with the help of professional literature and other forms of education and communication, which we need to devise (Figure 1).

By conducting in-depth research on the theories of the role of movement activities in the child's overall development and in primary school learning, and by conducting a comparative analysis of theoretical concepts and methods, we defined creative movement as a holistic and experiential teaching method in primary school, which encourages active participation and collaborative forms of learning.



**Figure 1.** A model of teaching using creative movement.

Aside from that, our research also highlighted the integration of creative movement into the classroom in terms of teaching and learning with art and through art. The art of dance does not have its own place in the current Slovenian school curriculum, which is why integrating creative movement into various school subjects should enable the achievement of curricular goals as well as the achievement of goals in arts – in our case these goals lie in the art of dance. Teaching through creative movement also encourages children’s motor development, explores various elements of dance and gives students the chance to express themselves.

These results provide encouragement for moving towards a more systematic integration of creative movement into various formal and informal trainings for teachers.

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