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PERSONAL AND SOCIAL FACTORS RELATED TO CREATIVITY IN THE DOMAIN OF PROFESSIONAL ACTIVITY IN THE SAMPLE OF PHYSICAL EDUCATION AND OTHER DISCIPLINE TEACHERS

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INTRODUCTION

Topicality of the research and problem issues of the research field

On May 22, 2008, the conclusions drawn by the representatives of governments of the member states of the Council of Europe on the promotion of creativity and innovations by applying education and teaching state that creativity is the main source of innovations while innovations in turn are acknowledged as a major factor of economic growth and creation of welfare as well as the grounds of positive alterations in the social area and are thus a key device in dealing with universal issues. The European Union adapted the borderline between teaching creatively and teaching for creativity (NACCCE, 1999). On the grounds of this concept, teaching creatively is defined as ability to employ imagination thus providing interest and efficiency to the process of teaching while the teaching for creativity is treated as ways of teaching through which young people develop creative reasoning and other creativity-related abilities. Academic works on the education science (Jeffrey, Craft, 2001) treat the concept of teaching creatively as effective teaching while teaching for creativity is understood as the application of teaching strategies and methods promoting creativity of students.

According to Batutis et al. (2007), physical education is an inseparable part of the culture of the society and an essential condition for the development of a harmonious personality. It has been established that physical activeness and physical self-development positively affect psychical health since the psychical balance is improved, and the reaction to the stress becomes more adequate (Batutis et al., 2007; Malinauskas et al., 2007). During a longitudinal research, it was established that the level of self-regulation and stress become more adequate among physically active adolescents. In terms of statistics, the indicators are reliably higher in comparison with physically less active peers (Dumčienė and Leiputė, 2010). According to Dumčienė et al. (2007), the need for physical self-development and its skills are insufficiently developed at school, nor is the positive attitude to the subject of physical education and healthy lifestyle in its wider sense. According to Balevičiūtė and Poteliūnienė (2006), the knowledge of students on the healthy diet, physical activeness and the impact of the lifestyle on health are insufficient. It was established that the

number of adolescents practicing physical self-development significantly increases if physical education teachers work more creatively. Creativity of physical education teachers is one of the key factors imposing on the attitude of students to improve their physical preparation (Dumčienė, 2007). According to Blauzdys (2002), knowledge on physical education must be presented in a way of getting students interested, by inciting their critical and creative reasoning and by promoting their willingness to do things actively. This opinion is corroborated by data presented by Balevičiūtė and Poteliūnienė (2006) proving that creative methods of teaching and learning alter the attitude of students towards physical activeness. Still, there are only few studies considering creativity in the domain of physical activity.

Insufficient attention to analysis of creativity in the context of physical education incited to plan a research with the following target issues: I. Manifestations of the viewpoint of pedagogues to creativity in their professional activity and their relationship with the type of professional activity, i.e. with the instructed discipline. 2. Personal and social factors related to creativity of physical education and other discipline teachers.

The formulation of the target issues and consequent academic insights allows to define **the object of the research**, specifically, the creativity of physical education and other discipline teachers in their professional activity. When verifying academic insights and responding to target issues, the thesis sought the **goal** of assessing the manifestation of creativity of physical education and other discipline teachers by revealing the relationship between this manifestation and personal as well as social factors.

In order to achieve the goal, the following **objectives of the research** were set:

- 1. To analyze theoretically the concept of creativity and its alterations in psychology and education science from socio cultural and organizational viewpoint.
- 2. To study the concept of creativity among physical education and other discipline teachers in their professional activity by singling out phenomenon related to creativity.
- 3. To establish the teachers' viewpoint towards creativity in their professional activity in the sample of physical education and other discipline teachers.

- 4. To assess the personal factors related to physical education and other discipline teachers' creativity.
- 5. To single out social factors, related to creativity in teachers' professional activity.

Academic novelty and practical significance of the research

Academic novelty of the research is defined by the fact that this is the first work of this type performed in Lithuania. Manifestations of physical education and other discipline teachers' creativity are assessed by revealing the relationship between these manifestations and personal as well as social factors singled out specifically in the research. The revelation of these relationships enables the prediction of the factors related to teacher creativity in professional activity. It is also important for developing the process of teaching physical education at school and for providing recommendations concerning the increase of teacher professionalism. It is essential to note that principles of mutual integrity and comparability of data were applied in the thesis, which highlights the academic novelty of the thesis. This area has been scarcely researched in works of foreign authors as well. The presented statements support the claim that the obtained objectives of the research enrich the subject(s) of the science of physical education, instruction of movements and sports. The newly created knowledge on the teacher creativity during physical education classes may help the teachers to develop their students as socially conscious society members.

The practical significance of the research and the prospects of application of its results are defined by the fact that the obtained results allowed the development of insights about physical education teacher creativity. Exploration of the teacher viewpoint peculiarities allows objective evaluation of teacher practical activity in terms of creativity. The research data may be employed when creating and implementing education programs to develop teachers' creativity. The developed research instrument to assess teacher creativity may be used in other studies as well.

1. CONCEPT OF CREATIVITY AND ITS ALTERATIONS IN PSYCHOLOGY AND EDUCATION SCIENCE

1.1. HISTORIC DEVELOPMENT OF THE CONCEPT OF CREATIVITY

Manifestations and importance of creativity were discussed by intellectuals of the earliest civilizations. Boorstin (1992) refers to *Creation* described in *The Bible* as the earliest concept of creativity in the Western culture. This creativity of religious origin and related with the godly heritage was irrational and thus not explained by earlier schools of the Western philosophy prior to the epochs of Renaissance and Enlightenment. Academic analyses of the concept of creativity were first attempted in the 18th century. The 19th century especially contributed to the development of the understanding of creativity. The concept of creativity got established only at the beginning of the 20th century. Before it become an inseparable part of the philosophical and educational discourse, close to creativity phenomena of geniality and inventiveness were researched back in the 19th century.

Guilford (1950) emphasized the importance of creativity as phenomenon and incited academic interest in the research of creativity. In the 20th century, the concept of creativity was related with a creative personality, a product of creation, process of creation and impact of the environment on creativity. Psychology historically developed the viewpoint that creativity is first of all a process of thinking. The impact of the environment on creative thinking was realized only after a decade of intense research of creativity.

Scholars of the 20th century researched creativity from the psychological aspect. Later knowledge on creativity was successfully developed by education science. When researching practical application of psychology in developing creativity, Dineen et al. (2005) systematized the researches of creativity of the last half a century and singled out six models of creativity in educational curriculum: humanistic, cognitive, personal characteristics, social factors, holistic and classroom based creativity.

1.2. IMPACT OF SOCIO CULTURAL CONTEXT ON CREATIVITY

Creativity cannot be researched if separated from the context. In every field of human action, there is a special sense making with the concept of creativity (Westwood, Low, 2003). Creativity is manifested in the social environment and impacted by it. Creativity is a phenomenon which affects the social environment. The interaction of creativity and culture is permanent and mutual. It determines the fact that cultures are creative in their own frameworks (Westwood, Low, 2003).

Csikszentmihalyi (1988) defined a system approach to creativity. It was the first theory highlighting the influence of the socio cultural context on creativity. Csikszentmihalyi (1996) emphasizes that culture consists of various domains, and each individual creates within a specific domain. Individuals with prominent creative achievements devoted all of their energy to the domain of professional activity.

Education is the unique domain of activity where creativity is critical for successful professional activity. In the domain of education, physical education curriculum is a special sub domain where the teacher creativity is related with the development of positive attitudes toward physical activity and formation of the need for physical self-development (Dumčienė et al., 2007). According to Jankauskienė (2008), physical education curriculum must contribute to the holistic physical education of a student, i.e. to physical, psychical and spiritual harmony and strengthening of health.

1.3. MANIFESTATION OF CREATIVITY IN PHYSICAL EDUCATION TEACHERS' PROFESSIONAL ACTIVITY

The development of creativity in physical education largely depends on the applied curriculum model. Hodges Kulinna (2008) singled out nine models of curriculum with each of those being topical during a specific period. According to the author, the first model of teaching physical education strives to cover as many activities as possible. Gradually, transition happened to the model of sport exercise teaching. It was substituted by the model of tactical games. Having realized that the physical education content ideally fits for the 10

development of creativity, a model of the movement education was developed. Its objective is to develop creativity. The model of personal and social responsibility was created for the development of social skills. In order to deal with such most urgent issues of the health as adolescent obesity or diabetes, health-oriented programs of physical education were created. The conceptual content of physical education, where the usefulness of sports and physical activeness for human health was emphasized, followed after it. The latest programs of physical education are interdisciplinary. They cover the holistic attitude to the human body and health.

Summarizing the development of physical education models, it is worth mentioning that the classical models created conditions for authoritarian behavior of the teacher by demanding to adhere the defined rules of the game. When bringing the innovative curriculum of physical education, competition was substituted by creativity while the authoritarian style of the teacher's work was replaced by teacher creativity. According to Siedentop (2007), physical education provides special conditions for developing achievements in physical, movement, intellectual and social fields, but these conditions are benefited only if the teacher is creative in his/her work.

The competences of a creative physical education teacher may be defined using the model presented by Nicholson (1990). The author defined seven abilities of a creatively working physical education teacher: ability to render knowledge of the subject, ability to incite students' inquisitiveness and willingness to explore, ability to get students interested, ability to incite intrinsic motivation, ability to encourage students, not to be afraid to take risks, ability to express confidence in student skills, ability to create conditions for discovery and choice and ability to develop student skills of self-regulation.

The importance of physical education teacher creativity was first highlighted only during the most recent decades. In classical models of physical education it was possible for effective teachers not to be creative. Nowadays competent physical education teachers display personal creativity and enable their students' creativity. Abilities of a creative physical education teacher and the necessity to foster students creativity during the classes of physical education is the object of scientific interest more and mode frequently.

2. METHOD OF THE RESEARCH

2.1. PARTICIPANTS OF THE RESEARCH

When construing the sample of the qualitative research, the objective was to reveal how physical education and other discipline teachers conceive creativity. Also it was explored what personal and social characteristics are related to teachers' creativity. The size of this sample is 10 teachers (4 teachers of physical education and 6 teachers of other subjects) working at various general education schools of Kaunas city.

The size of the sample of the quantitative research was 261 teachers of physical education and other disciplines working at grades 5 to 12 at general education schools of Kaunas city. The group of physical education teachers constituted 46 per cent (n=120) while the group of other subject teachers made up 54 per cent (n=141). Analysis of socio demographic variables of the sample revealed that almost a half of the research participants had obtained the qualification category of senior teacher (n=113). Slightly more than one third of the sample was drawn of teachers possessing the qualification degree of teacher methodologist (n=90) while almost one sixth of the researched teachers had no qualification category and had the status of teachers (n=40). Only a minor group of the sample (7 per cent) were teachers with the expert qualification category (n=18). The average of the professional experience of the researched teachers was 19.87±0.72 years.

2.2. METHODS OF THE RESEARCH

In order to reveal manifestations of creativity among physical education and other discipline teachers as well as related factors in their professional activity, a qualitative research was performed by applying the method of interpretational phenomenological analysis.

In order to assess the creativity and other factors of the research participants, a questionnaire was employed. It was drawn on the basis of the data obtained from the qualitative research and of various scales presented in academic literature. Socio demographic variables of the sample were selected as follows: the duration of the participant work, the subject they instruct and their professional qualifications. The diagnostic block constituted 13 scales: creativity in professional activity (Cronbach alpha 0.86), creative self-efficacy (Cronbach alpha 0.81), positive and negative emotions experienced at work (Cronbach alpha 0.52 and 0.73 correspondingly), intrinsic process motivation (Cronbach alpha 0.62), goal internalization motivation (Cronbach alpha 0.88), extrinsic motivation (Cronbach alpha 0.86), work group support (Cronbach alpha 0.87), co-worker expectations for creativity (Cronbach alpha 0.86), creativity support in the organization (Cronbach alpha 0.86), leader support (Cronbach alpha 0.84), sufficiency of resources (Cronbach alpha 0.87) and creativity encouragement (Cronbach alpha 0.81).

3. RESULTS OF THE RESEARCH

3.1. RESULTS OF THE QUALITATIVE RESEARCH

Three categories of creativity in the domain of professional activity were manifested: motivation to develop students' creative skills, ability to render the curriculum creatively and ability to achieve a high level of students' knowledge by employing creative methods.

Five topics were singled out from the interviews with the teachers as affecting their creativity in the domain of professional activity: creative self-efficacy, work motivation, emotions at work, relationships with co-workers and relationship with the leaders.

A comparison of physical education teacher and other discipline teacher opinions did not reveal essential differences in the interpretations of creativity. The participants of the research defined creativity as original rendering of the curriculum materials or strive to get students interested in the instructed subject and to get them involved into active learning of the subject.

3.2. RESULTS OF THE QUANTITATIVE RESEARCH

Factor analysis yielded 13 scales which were expected theoretically. The Cronbach alpha quotients of internal reliability of all the scales show that the scales are reliable.

It has been established that creativity is only impacted by the qualification category of the participants: teachers and senior teachers are less creative (creativity scale means are correspondingly 4.08 ± 0.09 and 4.02 ± 0.04) while teachers methodologists are more creative with the scale mean of 4.14 ± 0.57 , and teachers experts are the most creative with the scale mean of 4.44 ± 0.16 . Years of work experience and the type of professional activity do not exhibit statistically significant impact on creativity in professional activity.

Physical education teacher creativity is not statistically significantly different from the creativity self-evaluations of other discipline teachers. Physical education teachers tend to experience more positive emotions when

working with students (scale mean in the sample of physical education teachers stands at 3.85±0.13 while in the sample of other discipline teachers shows 3.38±0.05). Physical education teachers are more motivated to work than colleagues instructing other subjects: extrinsic motivation scale mean in the sample of physical education teachers is 3.75±0.08 while in the sample of other discipline teachers' yields 3.49±0.05. Physical education teachers experience co-worker expectations for creativity more frequently (scale mean of their sample is 3.58±0.07 while in the sample of other discipline teachers is 3.34±0.05).

Considering the fact that the qualification category impacts creativity self-evaluation, a correlation analysis was performed four times: for teachers, for senior teachers, for teacher methodologists, and teacher experts.

Goal internalization motivation and intrinsic process motivation as well as creative self-efficacy may be considered key factors related with teacher creativity independently from the qualification category. The second group of variables, in terms of correlation coefficient strength, is composed of extrinsic motivation, co-worker expectations for creativity and work group support. Ranking by strength of correlation coefficient, the third group of variables is composed from leader behavior variables: creativity support in the organization, leader support, sufficiency of resources, and creativity encouragement. The least important to creativity are emotions and socio demographical characteristics of the sample.

Considering the established strength of the relations among the variables, model of hierarchic regression was set in the sample of physical education teachers and other discipline teachers.

Creativity among teachers of physical education was statistically significantly predicted by creative self-efficacy (B=3.74; p<0.01), creativity encouragement (B=3.16; p<0.01); intrinsic process motivation (B=2.10; p<0.05) and extrinsic motivation (B=-2.24; p<0.05). Conclusions can be drawn that teachers of physical education work creatively when they trust their skills and are process oriented. Creativity encouragement by the principal also has impact. Extrinsically motivated physical education teachers do not tend to work creatively.

Creativity among teachers of other disciplines was statistically significantly predicted by goal internalization motivation (B=7.41; p<0.01) and

creative self-efficacy (B=7.35; p<0.01). Social factors do not show statistically significant values in predicting creativity among other discipline teachers.

Results of hierarchical regression analysis reveal that both physical education and other discipline teacher creativity may be predicted by their evaluation of creative self-efficacy. Creativity in the sample of physical education teachers is related with process-orientation: creative teachers have strong intrinsic process motivation. Other discipline teachers are goal-oriented: they are motivated to work creatively by goal internalization motivation.

DISCUSSION OF THE RESEARCH RESULTS

Creativity is a multifaceted phenomenon which manifests in everyday activity of a teacher when rendering the curriculum to students in innovative and original ways. This concept essentially coincides with definition of creativity by Csikszentmhalyi (1996) and Runco (2007).

Statements attributed to the self-image of a creatively working teacher should be interpreted by employing the theory of creative self-efficacy of Tierney and Farmer (2002) based on works by Bandura (1997), Gist and Mitchell (1992) and Ford (1996). Creative self-efficacy shows the choice of an employee to be creative in the field of his/her work activities.

Teacher work motivation in relation to creativity should be explored using taxonomy introduced by Leonard et al. (1999). Teacher responses reveal two types of intrinsic motivation: intrinsic process motivation and goal internalization motivation.

The importance of instrumental motivation was acknowledged, but this group of motives is considered peripheral in comparison with intrinsic motivation. It is possible that teachers are motivated for creative activity by goal internalization motivation and intrinsic process motivation.

Emotions experienced by teachers in their professional activity were explored employing the model of a creative process by Amabile et al. (2005). It was established that only positive emotions are important in the professional activity of creative teachers. However, they are not of primary importance.

The organizational climate was interpreted according to the theory of Amabile et al. (1996). It was established that teacher creativity in their professional activity is incited by their constructive cooperation in the group, mutual assistance when dealing with issues and sharing experience.

Creativity in professional teacher activity is also related with their expectations that colleagues should reveal the skills they possess. In his/her professional activity, a teacher gets involved into creative activity and feels that colleagues trust him/her and expect his/her creativity. The obtained results validate thesis of Farmer, Tierney and Kung-McIntyre (2003).

The impact of the leader on teacher creativity may be interpreted by employing the theory of creativity facilitating organizational climate defined by Amabile et al. (1996). Three aspects of positive impact on creativity proven by the theory authors should be highlighted. First of all, the leaders create favorable conditions for creativity by emphasizing the importance of creativity at school. This is reflected in the answers obtained from teachers. Another aspect is the accessibility of the leaders. Teachers value both overt cooperation with the leaders and the clarity of assignments set upon them, but none of the research participants indicated that the leader stimulates teamwork at school. The third aspect is the sufficiency of resources at school, which is understood in the broad sense, i.e. as information and human resources. Teachers in their answers also refer to the importance of material resources as creative work requires additional tools. The fourth aspect of the responses should be interpreted following the theory of creativity supporting leadership style by Oldham and Cummings (1996). Creatively working teachers appreciate individual consideration of the leader in the area of creative activities. It is manifested as guidance, consulting, enabling to develop professional competence. Data shows that majority of teacher and leader interactions are about curriculum development and lecturing.

The study confirms the thesis of other scientists that the importance of physical education as a subject is devalued in comparison with other subjects instructed at school (Griggs, 2007). Lectures of physical education in schedules are positioned at the end of a schooling day or treated as a break between other lessons thus showing teachers and students that expectations regarding this subject are not as high as regarding those subjects who are assigned the prime time of the schedule (OFSTED, 2005). These issues actual in Lithuania as well. According to Jankauskienė (2008), the situation established in Lithuania and other countries is related with the insufficient competence of physical education teachers or with devaluation of this competence. Physical education thus does not overlap with the goal(s) of the national strategy of health as the subject instruction is organized in a way that majority of curriculum does not respond to the needs of students. According to Jankauskienė (2008), the issue of ensuring the quality of physical education classes and the competence control of the teachers has not been resolved yet. These problems were reflected by our study participants. Data let to draw a conclusion, that devaluation of physical education as a subject is a barrier for physical education teachers' creativity.

The qualitative study allowed the assessment of creativity in the domain of professional activity in the samples of physical education and other discipline teachers. Physical education is a specific domain of professional activity but creativity in physical education manifest in the same way like in instruction of other subjects. Discipline of instruction is not related with teacher creativity or creative self-efficacy, i.e. both physical education and other discipline teachers define creativity in the same way. Creativity is manifested similarly in their professional activity and is directed to the same objective: the development of motivating environments to students and facilitation of learning. On the basis of the qualitative research, a presupposition can be made that physical education teachers in comparison with other discipline teachers possess equal opportunities of involving students into creative activity by encouraging self-expression via movement and by strengthening self-image via psycho-social adaptation (Šniras, Dumčienė, Dumbliauskas, 2007). Data of the quantitative research also showed no statistically significant differences in self-evaluations of creativity between teachers of physical education and other disciplines.

Results of the qualitative study estimated the similar results as in studies of foreign scientists. The difference lies in the fact that participants of our study highlight the development of the student's personality and the importance of value orientation more than participants of foreign studies. Values system was emphasized as a motive for creative action, especially emphasizing that teacher creativity promote students creativity.

It was established that the majority (70 percent) of the researched teachers indicate that they are creative by evaluating themselves in terms of various aspects of creativity.

Creativity is related with the qualification category of teachers. This data overlaps with the results of other scientists (i.e. Rupšienė and Gustienė, 2005).

Physical education teachers' creativity is related to leadership variables such as collective decision making, school policy improvement, teacher involvement in planning process. This opinion is confirmed by the thesis of Kardelienė and Kardelis (2006) stating that everyday activity of physical education teachers and their attitudes depend on the characteristics of their social network both in the past and present.

Creative self-efficacy is the variable which has the strongest relations with creativity in terms of correlation coefficient strength in both samples. According to Tierney and Farmer (2002), creative self-efficacy characterizes an individual's self-confidence in his/her talents and skills necessary for creative work. It was established that physical education teachers' creativity is related to their self-evaluation of creative abilities in the context of professional activity. Creative self-efficacy is the only variable which is important for both physical education and other discipline teachers.

Goal internalization motivation as a personality variable is also related with teacher creativity in the domain of professional activity. The significance of intrinsic process motivation for professional activity is emphasized in many contemporary creativity theories stating that employers interested in the process of activity tend to apply innovations thus introducing the aspect of creativity. Creatively working physical education teachers enjoy the process of their work, so their creative work is inseparable from their intrinsic process motivation.

Teachers of physical education are singled out among teachers of other disciplines as those who experience positive emotions more frequently. Positive emotions, in turn, are related to creativity but comparing the strength of correlation it is less significant than creative self-efficacy and intrinsic process motivation. Positive emotions can be valuated as one of the conditions of creativity, but if there are no such factors as creative self-efficacy or intrinsic process motivation, positive emotions is not sufficient condition for creativity manifestation.

The unique characteristic of physical education teachers is relations with co-workers, especially co-worker expectations for creativity. In comparison with other discipline teachers, the physical education teachers indicated that they face co-worker creativity expectations more frequently and they feel encouraged to be creative in their daily work. However, in spite of this characteristic, results of hierarchic regression analysis did not show that co-worker expectations for creativity predict creativity statistically significantly in the sample of physical education teachers.

Another aspect distinguishing the physical education teachers' creativity in comparison to other discipline teachers is the importance of extrinsic motivation for professional activity. Physical education teachers indicated

higher levels of extrinsic motivation than other discipline teachers. The results of hierarchical regression analysis showed that extrinsic motivation weakens creativity of physical education teachers. The fact that extrinsic motivation is important is indicated elsewhere (Karbočienė, Alūnas, Norkus, 2005).

Other discipline teachers are motivated by goal internalization motivation. It is likely that other discipline teachers' creativity functions as a tool for improving the education process because by applying education methods attractive to students teachers gain better results.

Extrinsic motivation is not related to creativity statistically significantly in the sample of other discipline teachers, but among physical education teachers the relation is statistically significant and negative. Extrinsic motivation for other discipline teachers' creativity mattered to the extent of its relationship with the goal internalization motivation. This shows that extrinsic motivation like provision of resources is the insufficient stimulus for creativity in the domain of professional activity in case of other discipline teachers.

Stating the lack of creativity in teacher work, special courses are suggested. Some authors state that teachers should acquire creative competences during the special courses (Malonaitienė, 2005). The data of our study allows to state that the increase of knowledge is insufficient mean for the enhancement of creativity because creativity requires creative self-efficacy, i.e. confidence in one's creative skills. Teachers may possess impressive subject knowledge on creativity in professional activity but s/he may still be resistant to work creatively if s/he has no experience and self-confidence so necessary to work creatively. It was estimated in the study that physical education teacher creativity is also associated with the organizational climate of school. Traditionally, teacher creativity has been related with the personal responsibility and competence of a teacher (Malonaitienė, 2005). It was estimated in the study that other discipline teachers' creativity is not predicted statistically significantly by any organizational climate variable at school. Meanwhile, in the sample of physical education teachers, creativity is related with the leader's efforts to encourage teacher creativity by involving them into decision making. On the other hand, physical education teachers treat the devaluation of their subject within the curriculum as one of the core obstacle for creativity in the domain of professional activity (Karbočienė, Alūnas, Norkus, 2005).

CONCLUSIONS

- 1. Interest in creativity phenomenon started at the 18th century. The term appeared in philosophy and only in 20th century psychological analysis of creativity began. Psychological analysis of creativity emphasizes abilities of creative personality, characteristics of creative process, creative product and environment encouraging creativity. In education science, the concept of creativity altered from interpretation of various viewpoints (personality, organization or education-based) to the development of creativity-enhancing strategies by highlighting the importance of the educators' personality and the environmental impact on creativity.
- 2. Qualitative analysis, using interpretative phenomenological method did not disclose significant differences in the manifestations of creativity in the samples of physical education and other discipline teachers. Qualitative analysis disclosed five groups of variables, possibly interrelated with creativity. The most important of it are personality characteristics: creative self-efficacy, work motivation and emotions in the workplace. Qualitative analysis disclosed the importance of organizational climate: co-worker expectations toward creativity and work group support. Leaders' behaviors variables, such as encouragement of creativity, sufficiency of resources and leader support were also considered as important by the qualitative study participants. The results of the qualitative study motivated to administer quantitative study for detailed analysis of variables related to teachers' creativity.
- 3. Judgments of physical education and other discipline teachers towards creativity in professional activity revealed that in both cases creativity is defined as a tool to gain students' knowledge and improve educational process. In both cases creatively working teachers are defined as possessing vivid imagination, novel ideas and are able to tackle a few problems at the same time. No significant differences were established in comparing teachers of physical education and other disciplines regarding their attitudes towards creativity in professional activity.
- 4. Physical education teachers more often experience involvement, satisfaction, as well as positive emotions in their workplace if comparing to

other discipline teachers. Rarely for the surveyed teachers is inherent despair, sorrow and fluster. Personality of creatively working physical education teachers can be defined as having high intrinsic process motivation. In the sample of other discipline teacher creativity is related to goal internalization motivation. Creative self-efficacy is important for both physical education and other discipline teachers. The relationships of creativity and personal factors in both samples showed, that teacher creativity is straightly related to creative self-efficacy. Goal internalization motivation is straightly related to creativity in the sample of other discipline teachers. Extrinsic motivation inhibits creativity of physical education teachers. It has no impact in the sample of other discipline teachers. Emotions, experienced in the workplace, are the personal factor, which is weakly related to teacher creativity.

5. There are no social factors, predicting creativity in the sample of other discipline teachers. In the sample of physical education teachers only creativity encouragement predicts creativity in the domain of professional activity. This shows that leaders' role in enhancing creativity in the workplace is more important to physical education teachers than other discipline teachers. In the sample of physical education and other discipline teachers the relationships with the co-workers characterizing variables are not straightly correlated with creativity although physical education teachers indicated perceiving their colleagues encouragement to work creatively more often than other discipline teachers.

APPROBATION OF RESULTS OF THE DOCTORAL DISSERTATION

Scientific publications in the international data bases (reviewed publications) journals:

- 1. Dumčienė, A., Lapėnienė, D. (2010). Possibilities of Developing Study Motivation in E-Learning Products. *Electronics and Electrical Engineering*, 6 (102), 43–46.
- 2. Lapėnienė, D. Bruneckienė, J. (2010). Teachers' Creativity in the Domain of Professional Activity. Analysis of Individual Factors. *Economics & Management*, 15, 642–649.
- 3. Lapėnienė, D., Laskienė, S. (2009). Pedagogų kūrybingumą profesinėje veikloje lemiančių veiksnių analizė. *Ugdymas. Kūno kultūra. Sportas*, 2 (73), 64–72.
- 4. Dumčienė, A., Lapėnienė, D. (2010). Kūrybiškos profesinės veiklos sąsaja su emocine fiziologine mokytojų būsena. *Sveikatos mokslai*, 3, 3020–3023.

Scientific publications in other review publications:

1. Лапениене, Д. (2010). Формирование креативности: исторический аспект. Red. R. Keturakis, S. Grušaitė. *Česlovo Milošo skaitymai 3. Kultūrų sankirtos: patirtys ir pokyčiai* (pp. 253–262). Kaunas: VDU leidykla.

SANTRAUKA

Kūrybingumas laikomas prioritetine mokytojų kompetencija tiek Europos sąjungos, tiek Lietuvos švietimo dokumentuose, taigi svarbu įvertinti kaip profesinėje veikloje reiškiasi mokytojų kūrybingumas bei kokie asmenybiniai bei socialiniai veiksniai pozityviai susiję su kūrybingumu. Ypač svarbu analizuoti kūno kultūros mokytojų kūrybingumą, nes tiek Lietuvos tiek užsienio mokslinėje literatūroje pateikiami tyrimų duomenys liudija, jog kūrybingumas kūno kultūros pamokose – nepakankamai išplėtota tema (Mayesky, 1998; Nicholson, 1999; Bakienė, 2006). Stokojama sisteminio požiūrio į kūno kultūros bei kitų dalykų mokytojų kūrybingumą.

Nepakankamas dėmesys kūno kultūros mokytojų kūrybingumo analizei mokslinėje literatūroje paskatino planuoti tyrimą, kuriame buvo formuluoti tokie probleminiai klausimai: 1) kokia yra pedagogų požiūrio į kūrybingumą profesinėje veikloje raiška ir kaip ji susijusi su profesinės veiklos pobūdžiu (mokomuoju dalyku)? ir 2) kokie asmenybiniai bei socialiniai veiksniai susiję su kūno kultūros ir kitų dalykų mokytojų kūrybingumu profesinėje veikloje?

Ieškant atsakymo į minėtus klausimus remtasi kūrybinio savaveiksmiškumo (Tierney, Farmer, 2002), motyvacijos darbui (Leonard ir kt., 1999), emocijų ir kūrybingumo (Amabile ir kt., 2005), kognityviosios emocinės aplinkos charakteristikų (Amabile ir kt., 1996) bei vaidmens tapatumo (Farmer ir kt., 2003) teorinėmis nuostatomis, kuriose išryškinamas asmens pasitikėjimas savo kūrybiniais gebėjimais, vidinės ir išorinės motyvacijos darbui paskatos, emocijų svarba kūrybingumo raiškai, mokyklos vadovų ir bendradarbių vaidmuo skatinant mokytojų kūrybingumą.

Tyrimo objektas – kūno kultūros ir kitų dalykų mokytojų kūrybingumas profesinėje veikloje.

Darbo tikslas – įvertinti kūno kultūros ir kitų dalykų mokytojų kūrybingumo raišką profesinėje veikloje atskleidžiant jos sąsajas su asmenybiniais bei socialiniais veiksniais.

Tyrimo uždaviniai:

- 1. Teoriškai išnagrinėti kūrybingumo sampratą ir jos kaitą psichologijoje ir edukologijoje sociokultūriniu bei organizaciniu požiūriu.
 - 2. Interpretacinės fenomenologinės analizės būdu išanalizuoti kūno

kultūros ir kitų dalykų mokytojų kūrybingumo profesinėje veikloje sampratą išryškinant su kūrybingumu susijusius veiksnius.

- 3. Taikant normatyvinę nuostatą dėl tyrimo objekto kintamųjų raiškos vertinimo, nustatyti kūno kultūros ir kitų dalykų mokytojų požiūrį į kūrybingumą profesinėje veikloje atskleidžiant jo panašumus ir skirtumus.
- 4. Įvertinti asmenybinius kūno kultūros ir kitų dalykų mokytojų veiksnius bei atskleisti jų sąsajas su kūrybingumo apraiškomis profesinėje veikloje.
- 5. Išskirti socialinius veiksnius, susijusius su kūno kultūros ir kitų dalykų mokytojų kūrybingumu profesinėje veikloje.

Tyrimo metodai

Siekiant atskleisti, kaip kūno kultūros ir kitų dalykų mokytojai suvokia kūrybingumą ir kokios jo apraiškos bei su jomis susiję veiksniai būdingi pedagogų profesinėje veikloje, atliktas kokybinis tyrimas taikant interpretacinės fenomenologinės analizės metodą.

Tyrimo dalyvių kūrybingumui bei su juo susijusiems veiksniams tirti naudotasi klausimynu, sudarytu remiantis kokybinio tyrimo duomenimis bei literatūroje pateiktomis skalėmis. Šio apklausos raštu metodo turinį sudarė fakto (socialiniai demografiniai) ir konstrukto (tiriamojo objekto priklausomų kintamųjų) klausimai ir teiginiai. Socialiniais demografiniais tyrimo kintamaisiais įvardintas tirtųjų amžius, pedagoginio darbo stažas, mokomasis dalykas, profesinė kvalifikacija, o diagnostinį tiriamojo konstrukto bloką sudarė 13 skaliu: kūrybingumo profesinėje veikloje (Chronbach aplha – 0.86). kūrybinio savaveiksmiškumo (Chronbach aplha - 0,81), darbe patiriamų teigiamų ir neigiamų emocijų (Chronbach aplha – 0,52 ir 0,73 atitinkamai), vidinės proceso motyvacijos darbui (Chronbach aplha – 0,62), vidinės tikslo motyvacijos darbui (Chronbach aplha - 0,88), išorinės motyvacijos (Chronbach aplha – 0,86), kolegų teikiamos paramos profesinės veiklos srityje (Chronbach aplha - 0,87), bendradarbių lūkesčių kūrybingumui (Chronbach aplha – 0,86), suvokiamos kūrybingumo vertės organizacijai (Chronbach aplha - 0,86), vadovo prieinamumo (Chronbach aplha - 0,84), išteklių pakankamumo (Chronbach aplha – 0,87) bei kūrybingumo skatinimo (Chronbach aplha -0.81).

Tyrimo dalyviai

Konstruojant kokybinio tyrimo imtį buvo siekiama atskleisti, kaip kūno kultūros ir kitų dalykų mokytojai suvokia kūrybingumą ir kokios jo apraiškos bei su jomis susiję veiksniai būdingi mokytojams profesinėje veikloje. Šios imties tūrį, atlikus bandomąjį tyrimą, sudarė 10 pedagogų (keturi kūno kultūros ir šeši kitų dalykų mokytojai), parinktų iš įvairių Kauno miesto vidurinių mokyklų.

Kiekybinio tyrimo imties tūrį sudarė 261 kūno kultūros ir kitų dalykų mokytojas, dirbantis Kauno miesto bendrojo lavinimo vidurinių mokyklų 5–12 klasėse. Kūno kultūros mokytojų grupė imtyje sudarė 46 proc. (n=120), o kitų dalykų mokytojų grupė – 54 proc. (n=141). Socio demografinių tiriamosios imties kintamųjų analizė atskleidė, kad beveik pusė tyrimo dalyvių (43,3 proc.) buvo įgiję vyresniojo mokytojo kvalifikacinę kategoriją (n=113). Kiek daugiau nei trečdalį (34,5 proc.) imties sudarė pedagogai, turintys mokytojo metodininko kategoriją (n=90), ir beveik penktadalis mokytojų (15,2 proc.) buvo dar neatestuoti (n=40). Tik nedidelę tirtų pedagogų dalį (7 proc.) sudarė mokytojai, turintys eksperto kvalifikacinę kategoriją (n=18). Tirtų mokytojų pedagoginio darbo stažo vidurkis buvo 19,87±0,72 metų.

Tyrimo mokslinis naujumas ir praktinis reikšmingumas

Mokslini tyrimo naujumą apsprendžia ta aplinkybė, jog tai pirmas tokio pobūdžio darbas, atliktas Lietuvoje, kuriame bandyta ivertinti kūno kultūros ir kitų dalykų mokytojų kūrybingumo apraiškas profesinėje veikloje, kartu atskleidžiant jų sasajas su tyrime išskirtais asmenybiniais ir socialiniais veiksniais. Šių sąsajų atskleidimas įgalino parengti hierarchinį asmenybinių ir socialinių veiksnių modelį, įgalinantį prognozuoti minėtų veiksnių poveikį mokytojų kūrybiškumo sklaidai profesinėje veikloje. Jis taip pat svarbus tobulinant kūno kultūros ugdymo mokykloje vyksma bei teikti rekomendacijas mokytojų profesionalumui plėtoti. Darbe taikyti duomenų tarpusavio integralumo ir palyginimo principai, apsprendžiantys jo mokslinį naujumą, yra mažai tyrinėti ir užsienio autorių darbuose. Gauti tyrimo rezultatai praturtina tokią ugdymo mokslo šaką kaip fizinis lavinimas, judesių mokymas, sportas. Sukurtos naujos žinios apie pedagogu kūrybinguma kūno kultūros pamokoje gali padėti kūno kultūros mokytojams ugdyti mokinius kaip visuomeniškai kryptingus narius bei puoselėti jų pilietiškumo raidą per kūno kultūrą kaip mokomaji dalyka.

Tyrimo praktinį reikšmingumą ir jo rezultatų taikymo perspektyvas nusako tai, kad gauti tyrimo duomenys leido formuluoti įžvalgas apie kūno kultūros mokytojų kūrybingumo apraiškas, galinčias paskatinti mokinių domėjimąsi ne tik mokykline kūno kultūra, bet ir būti fiziškai aktyviais laisvalaikiu. Tyrime atskleisti kūno kultūros ir kitų dalykų mokytojų požiūrio į kūrybingumą profesinėje veikloje ypatumai leidžia objektyviau vertinti praktinę pedagogų veiklą kūrybingumo aspektu. Tyrimo duomenys gali būti panaudoti kuriant ir įgyvendinant pedagogų kūrybingumo profesinėje veikloje ugdymo programas bendrojo lavinimo mokyklose, taip pat tobulinant pedagogų veiklos organizavimą ir vadybą. Sukurtas mokytojų kūrybiškumą vertinantis apklausos raštu metodas gali būti panaudotas tiriant socialinės aplinkos veiksnių sąsajas su pedagogo kūrybingumu profesinėje veikloje tiek bendrojo lavinimo mokyklose, tiek ir kitose ugdymo institucijose.

IŠVADOS

- 1. Kūrybingumo sampratos traktavimas, prasidėjęs XVIII amžiuje, keitėsi nuo genialumo sąvokos filosofijoje atsiradimo iki šių dienų postuluojamo asmens gebėjimo kurti ir diegti naujoves. Šios sampratos raida psichologijoje keitėsi nuo mąstymo procesų analizavimo iki kūrybingo proceso modelių sukūrimo, kartu įvertinant sociokultūrinės aplinkos, o ypač organizacijos, įtaką kūrybingumui. Ugdymo mokslo kontekste kūrybingumo samprata kito nuo įvairių požiūrių (asmenybinių, organizacinių bei edukacinių) interpretavimo iki kūrybingumo ugdymo strategijų kūrimo, išryškinant kūrybingos ugdytojo asmenybės svarbą bei kūrybingumui daromą aplinkos poveikį.
- 2. Interpretacinė fenomenologinė interviu duomenų analizė neatskleidė kūno kultūros ir kitų dalykų mokytojų kūrybingumo profesinėje veikloje sampratos skirtumų. Išreikšdami savo nuomonę apie kūrybingumą profesinėje veikloje, ir vieni, ir kiti mokytojai neakcentavo mokomojo dalyko išskirtinumo, tačiau kūno kultūros mokytojai labiau susirūpinę dėl žemo jų mokomojo dalyko statuso bei dėl nepakankamos šio dalyko svarbos mokinių raidai vertinimo. Tirti pedagogai kūrybinio darbo prielaidomis įvardija demokratišką darbo aplinką, ugdymo metodų įvairovę, efektyvų mokinių motyvavimą mokomajam dalykui. Nepriklausomai nuo mokomojo dalyko, apklausti pedagogai pabrėžia savo patirties, gebėjimų ir motyvacijos kūrybinei veiklai svarbą bei kūrybingo darbo teikiamą džiaugsmą. Analizuodami socialinės aplinkos poveikį jų kūrybingumui, mokytojai akcentavo pozityvius santykius su vadovais bei išskyrė teigiamus santykių su kolegomis aspektus.
- 3. Kūno kultūros ir kitų dalykų mokytojų požiūrio į kūrybingumą profesinėje veikloje kiekybinio tyrimo rezultatai atskleidė, kad ir vienų, ir kitų požiūryje dominuoja mokinių kūrybingumo ugdymo svarba, noras tobulėti, būti kūrybingiems. Kiek kukliau pagal atsakymų į pateiktus teiginius dažnį tirti mokytojai vertino savo kūrybinį savaveiksmiškumą. Jie mano, kad yra kūrybingai dirbantys pedagogai, t.y. turi lakią vaizduotę, naujų idėjų, geba susidoroti su keletu problemų tuo pačiu metu.
- 4. Tyrimo duomenimis, kūno kultūros mokytojai profesinėje veikloje dažniau nei kitų dalykų mokytojai išgyvena teigiamas susidomėjimo, pasiten-

kinimo atliktu darbu bei jame patiriamo džiaugsmo emocijas. Rečiau tirtiems pedagogams būdingas nusivylimas, liūdesys, pasimetimas. Kūno kultūros mokytojus profesinei veiklai dažniausiai skatina vidinė proceso motyvacija. Kitų dalykų mokytojų kūrybingumui ypač svarbi vidinio tikslo motyvacija. Kūrybingumo raiškos ir asmenybinių veiksnių sugretinimas parodė, kad tampriausiai su mokytojų kūrybingumu susijęs kūrybinis savaveiksmiškumas, vidinio tikslo ir išorinė profesinės veiklos motyvacija. Darbe išgyvenamos emocijos – silpniausiai su pedagogų kūrybingumu susijęs asmenybinis veiksnys.

5. Analizuojant socialinių veiksnių raišką tirtų pedagogų imtyje pastebėta, kad kitų dalykų mokytojų imtyje socialiniai veiksniai nėra susiję su kūrybingumu. Kūno kultūros mokytojų imtyje kūrybingumo skatinimas pozityviai prognozuoja kūrybingumą profesinėje veikloje. Tai atskleidžia, kad kūno kultūros mokytojams santykiai su mokyklos vadovais yra svarbesni nei kitų dalykų mokytojams. Tiek kūno kultūros tiek kitų dalykų mokytojų imtyje santykius su bendradarbiais apibūdinantys kintamieji nėra tiesiogiai susiję su kūrybingumu, nors kūno kultūros mokytojai nurodė dažniau jaučiantys kolegų skatinimą dirbti kūrybingai nei kitus dalykus mokantys jų kolegos.

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