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“*Social Inquiry into Well-Being*” publishes original scholarly articles, reviews of scholarly monographs and other publications, academic theses and other informative publications in the Lithuanian and English languages. Upon a decision by the Editorial Board, publications in other languages may be included. The academic journal “*Social Inquiry into Well-Being*” publishes articles dealing with issues in the fields of social policy, social work, sociology, psychology and education.

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I. PSICHOLOGIJA PSYCHOLOGY

A SYSTEMATIC REVIEW OF OUTDOOR ADVENTURE EDUCATION PROGRAMS IN SCHOOLS

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Abstract

Implementing outdoor adventure education (OAE) programs with school pupils brings unique challenges and outcomes. However, no previous review on OAE programs has focused on the classroom cohort. We systematically reviewed quantitative research of OAE programs in schools regarding outcomes, program types, and methodology. Data were collected from 7 databases using a syntax representing concepts of OAE and schools. Out of the 3,535 articles found, 8 were selected. These results reveal methodological limitations such as no control group, vague program description, and questionable time of measurements. The reviewed research measured 16 different outcomes and revealed ambiguous results. OAE shows the potential to improve cohesion in student groups and students' self-efficacy; however, more rigorous research with classes that remain intact after the program ends is needed. Overall, OAE programs may benefit various aspects of a pupil's life, but it is crucial to have a clear direction of where the program leads.

Keywords: outdoor adventure education, school, classroom, systematic review.

Introduction

Alongside academic knowledge, schools should ensure the well-being of students (Zeng, Hou & Peng, 2016). Norms existing in the classroom are connected to student behaviour (Peets et al., 2015); the social context predicts school satisfaction, academic results (Pawlowska et al., 2014), the probability of intervening in bullying situations, and self-efficacy (Wachs et al., 2018). This suggests a need for programs that could improve the peer context in the classroom, and outdoor adventure education (OAE) could be considered one of the answers to this requirement. With groups at the centre of their focus (Jostad, Butnhorp & Paisley 2013) and their observed effectiveness at improving group cohesion (Cooley, Burns, & Cumming, 2015), OAE programs could potentially be an effective tool in the quest to enhance classroom relationships, since these groups remain intact after the program ends. As Richmond et al. (2018) reflect, OAE interventions with pupils from the same school allow them to carry the changes in relationships that occurred during the program into the future and keep building on them. However, no previous meta-analysis or systematic review was found that described the effectiveness of OAE programs for school classes that remain intact after the program ends. That is the goal of this review.

In the field of OAE, there have been reviews and meta-analyses which focused on general outcomes (Hattie et al., 1997) and outcomes for specific groups such as students (Cooley, Burns & Cumming, 2015) and adolescents (Cason & Gillis, 1994; Fang et al., 2021), but no previous reviews focused on the school environment. It has been shown that different group types have different outcomes when participating in OAE programs (Hattie et al., 1997). Therefore, findings from adolescent groups should not be generalised with findings from school classes that remain intact afterwards. Classrooms have different pre-existing group norms, interpersonal relationships, and cultures, which could influence results (Sibthorp & Jostad, 2014). While there is qualitative support for the benefits of the OAE program for classrooms, more quantitative support is encouraged (Richmond et al., 2018). Therefore, this review aims to look at existing quantitative research involving OAE programs performed with school pupil groups (from the same school or several schools) that remain intact after the program ends. This review focuses on *program type, program outcomes, and research quality*.

OAE programs mainly involve challenging and innovative group activities in outdoor conditions (Cooley, Burns & Cumming, 2015) and include problem-solving, cooperation and reflection on the experience (Gutman & Schoon, 2015). Typically, participants learn and work in small groups led by a trainer or facilitator who provides them with mentally or physically challenging tasks and encourages them to leave their “comfort zone”. Generally, the duration of OAE programs is inclined to be more than a week (Hattie et al., 1997); however, this became more variable as the number of organisations providing such programs increased and the need for programs to be more accessible grew (Rushford et al., 2020). Now, the duration of OAE programs may fluctuate between half a day or even a year, averaging 3–5 days (Bowen et al., 2016). However, while it may seem understandable that shorter programs may have a lesser impact, the implications of the varying duration of programs need further investigation (Rushford et al., 2020). It can be noticed that the concept of OAE is broad, and similar programs have been defined using various terms such as outdoor behavioural therapy, wilderness education, wilderness programs or adventure therapy (Gutman & Schoon, 2015). In this paper, we describe OAE programs as involving several essential components: *group, outdoors, challenging activities*

and *reflection*. Given the broad spectrum of OAE programs, program type becomes one of the points of interest in our review.

Hattie et al. (1997) found 40 different measured outcomes of OAE programs that significantly improved. The authors grouped them into six main dimensions: academic achievements, leadership, self-concept, personality, interpersonal skills, and being adventurous. In the context of education, OAE programs provided similar benefits (Cooley, Burns & Cumming, 2015; Cason & Gillis, 1994). Student and pupil participants of OAE programs demonstrated increased locus of control, confidence (Neill & Richards 1998), understanding of oneself, school attendance, grades (Gutman & Schoon, 2015), self-regulation, ability to set and seek personal goals (Sibthorp et al., 2015), and resilience (Blaine & Akhurst, 2021). There is a notable rise in interest in group (rather than individual) outcomes of OAE programs (Yasim, 2016). During most OAE programs, participant groups cooperate, leading to improved group cohesion, groupwork skills, interpersonal skills, and teamwork (Gutman & Schoon, 2015). Groupwork and group cohesion are sometimes suggested as the main beneficiaries of such programs since student groups who partake in OAE programs have a more positive attitude towards groupwork and overall satisfaction with the learning environment (Cooley, Burns & Cumming, 2015). Thus, in the context of education, three categories of outcomes could be suggested based on more recent research: *social relationships*, *self-efficacy*, and *self-concept* (Cooley, Burns & Cumming, 2015; Yasim, 2016). However, these suggested outcomes stem from research with higher education students, and although relatively similar results could be expected with school pupils (Williams et al., 2018; Neill, 1997), they become another focus of this review.

Despite various benefits of OAE programs, quantitative research measuring these effects often faces substantial methodological limitations (Sheard & Golby, 2006; Cooley, Burns & Cumming, 2015; Hattie et al., 1997) which raises concerns about the validity of its findings. A review by Scrutton and Beames (2015) found that common limitations are: *lack of control group*, *inappropriate questionnaires (poor properties, unsuited for participant age, etc.)*, *poor time of measures (immediately before and after the program)*, and *small or poorly composed sample*. Similar limitations in the field have been mentioned in other literature (Neill, 2003; Shirilla, Solid & Graham, 2021). However, a recent methodological paper by Shirilla, Solid and Graham (2021) noticed that current research is moving in the right direction and avoiding these limitations. The authors also suggest acquiring longitudinal data, since measuring immediately before and after a program or intervention prevents us from knowing if we are measuring long-term change or just an emotional response after an exciting day. On the other hand, a lot of research in the field of OAE is qualitative and focuses on the different and unique experiences of a group (Davidson, 2001). This qualitative orientation enriches our knowledge of various benefits (Scrutton & Beames, 2015) and helps practitioners understand groups better. However, to establish a systematic change and the inclusion of more OAE programs in education, there is a need for more quantitative research which could reveal the long-term benefits of OAE programs (Dathatri, 2011).

One of the difficulties that research in OAE faces is operationalising qualitative results and acquiring sound quantitative data. The generalizability of OAE research has been a concerning topic of debate for a while (Allison & Pomeroy, 2000). OAE itself focuses on things that are unique to each group, and each program can be different in its duration, type, and goals. This raises the question of how the experience of one group can be compared to that of another. Lack

of generalizability leaves obvious gaps in quantitative literature. Thus, the issue is not only the lack of research in the field but also the unavoidable limitations in the methodology (Neill, 2003; Scrutton & Beames, 2015). This may occur due to varying circumstances of OAE, such as unique group dynamics, differing experience of the group facilitator (the person leading the program) and program type. However, while we may have to accept that the uniqueness of groups will always be an uncontrollable factor, it is important that the other factors are as controlled as possible.

Another concern is the lack of significant findings from methodologically sound research. Research by Williams and others (2018) included a control group and a relatively large number of participants (335), and measured the long-term effects of a week-long OAE program. Despite the authors mentioning significant qualitative results, there was no significant long-term quantitative improvement in various psychological aspects such as self-efficacy and well-being compared to the control group (Williams et al., 2018). Thus, while there is support for various benefits of OAE (Hattie et al., 1997; Cooley, Burns & Cumming, 2015), recent and methodologically sound quantitative research finds no statistically significant benefits (Sheard, & Golby, 2006; Williams et al., 2018). These findings raise several considerations. Firstly, significant qualitative findings suggest the limited possibility to operationalise various benefits of OAE. The second possibility could be that the effects of OAE programs are more short-term than previously thought, since this research measured lasting results. Lastly, this could occur due to a practical issue related to relative inconsistencies in how OAE programs are performed.

Despite supporting research and possible methodological risks, we cannot generalise the current findings in particular contexts such as classrooms. Most OAE researchers note the importance of group dynamics during the program (Sibthorp & Jostad, 2014); however, most groups that participate in OAE programs and research separate after the program ends. Consequently, only individual (not group) characteristics can be measured in the long term. It can be challenging to implement OAE programs and measure their effects in the context of formal education (within school classrooms) due to prominent safety regulations, budget cuts or schools' prioritisation of science topics (Prince, 2019). Therefore, an understandable lack of research with groups that remain intact after the program is finished, such as school classes, can be observed (Richmond et al., 2018). A systematic review by Becker and others (2017) reviewed the effects of regular classes in outdoor settings. Despite being similar in topic and methodology, it focused on individual rather than group aspects. Thus, while this review cannot directly help the methodological limitations of the existing literature, it seeks to minimise the gap in knowledge of existing studies on OAE in classrooms of school pupils – closed existing groups.

This research aims to systematically review existing quantitative literature on programs based on OAE that are performed with school pupils. The research seeks to answer the following questions: Which psychological and social dimensions could benefit from OAE programs? What types of programs are used in the school context? What are the common methodological issues found in the research?

1. Materials and methods

Several prepositions had to be considered in preparation for the systematic review and search strategy. Firstly, this research began based on the view that a classroom is generally a unique group; thus, generalising previous findings from research focusing on different group types should not occur. Secondly, based on previously mentioned literature, three main problems can be asserted: OAE has a broad point of focus; literature in the field faces methodological criticism; and OAE programs vary drastically. Additionally, no previous systematic review focused on the effectiveness of OAE programs with school pupils.

Based on these statements, a search strategy was created to reveal more insight into three questions: a) What type of OAE programs are used with school pupils? b) Does the research have common methodological limitations? and c) What outcomes are measured after the program? This review seeks to investigate quantitative studies which measured the effects of OAE programs performed with school pupils from the same school or schools. A systematic search strategy was implemented, and selected articles were reviewed to achieve this.

Search strategy. For this systematic analysis, PRISMA recommendations (Moher et al., 2009) were used in preparation for the acquisition of data and the creation of the diagram. Since no previous review was found, no time period was set for the search – all research up to February 2019 was included. Since the topic consists of the fields of psychology and education, a wider variety of research databases was sought. Seven databases were selected for the research: ERIC, JSTOR, SAGE journals, Science Direct, SocINDEX, Taylor and Francis, and Academic Search Complete. These databases were selected based on their focus on social sciences and their availability to our institution.

The search strategy used two main criteria: 1) research papers had to involve an OAE-based program or intervention; and 2) research had to be performed with school pupils from the same school or schools. Therefore, the search strategy involved such terms as: *Outdoor education*, *outdoor learning*, *outdoor behavioural*, *wilderness program*, *adventure education* and *school*, *classroom*, *school-based* and *class*. The syntax used in the search is shown in Figure 1. Since the syntax was acceptable in all mentioned databases, no specific changes had to be made. However, to narrow search results in some databases, additional criteria were added, if available. These criteria were: field or research (psychology, education), English language, and academic journals. Across the seven databases, the primary search found 3,535 articles. Table 1 shows the number of results according to the database.

“Outdoor adventure” OR “Outdoor learning” OR “Outdoor behavioural” OR “wilderness program” OR
“Adventure education”) AND (school OR classroom OR school-based OR class*

Fig. 1. Search syntax

Table 1. Articles found based on database

	N
Academic Search Complete	242
Science Direct	385
JSTOR	125
SocINDEX	84
ERIC	818
SAGE	546
Taylor and Francis	1,335
Overall	3,535

Article selection. The first selection step involved the selection of articles based on their title. An article was included if the title or keywords involved terms used in the search syntax (or similar) from both the OAE and school contexts. The terms used for the inclusion of articles can be found in Table 2. Since this research involved one researcher, measures were taken to reduce the chance of type I error (false negative). The researcher was permitted to select an article even if it did not include the exact mentioned terminology in its title or keywords. This exception was also supported by the common occurrence of unusual and playful article titles in the field of OAE and experiential learning. In total, 767 out of 3,535 articles were selected in this step after excluding duplicates.

Table 2. Inclusion criteria based on article title

Outdoor adventure education keywords	School context keywords
Outdoor education	School
Outdoor learning	Pupils
Outdoor behavioural learning	Students
Wilderness program	Classroom
Adventure education	School based
Outdoor adventure	Class
Adventure learning	Adolescents
	Teenagers
	Education

Abstract review. The second selection step involved reviewing the abstracts of the articles included in further research. During this stage, it was sought to select articles that matched three main criteria: a) program is based on OAE; b) research is focused on school or classroom context; and c) quantitative data is provided. In this stage, articles were rejected rather than selected. A paper was rejected if it matched one or more rejection criteria, such as specific cohorts, no research, only qualitative research, etc. A more detailed description of the rejection criteria is given in Table 3. If the abstract did not provide enough information to reject the article, it was not

rejected. During this step, 591 papers were rejected based on their abstracts, leaving 176 articles for full text review.

Table 3. Rejection criteria based on abstract

Rejection criteria
No research
Not in English
No program or intervention applied
Not with students
Not the context of school
Only qualitative results
No quantitative data
Systemic review or meta-analysis
Literature review
Non-scientific paper
Article was retracted
Research focuses on higher education students
Research done with teachers
Program not based on OAE
Specific cohort of students or pupils

Final article selection. For the final selection of articles (the third step), the selection principle was used once again. Firstly, for an article to be selected, the research had to be performed with school pupils from the same school or schools, suggesting that they potentially have interactions outside and after the program. Secondly, the study had to involve an OAE program or intervention. Thirdly, it had to have quantitative data measuring the effectiveness of the program or intervention (Table 4). Based on the final selection process, 8 articles were selected. The selected articles differed in how descriptive the group or school context was. Since the school context was the focus of this review, a brief description is given in Table 6. Some articles [No. 1; 4; 6; 8] provided enough detail to discern that the majority of participants were from the same classrooms or schools, while others were vaguer and more open to interpretation [No. 2; 3; 5; 7]. Despite this, all of the mentioned articles were selected for review.

Table 4. Final article selection criteria

School or classroom context and involved students.	Involved principles of OAE.	Quantitative evaluation of effectiveness.
<p>Research was done in the context of certain school or schools.</p> <p>Research involved students.</p> <p>Students were not from a specific cohort or selected based on specific reasoning (disability, antisocial behaviour, etc.).</p>	<p>Research involved activities based on OAE.</p> <p>Outdoor activity was not focused on a specific academic field (biology, history etc.).</p>	<p>Research involved quantitative methods for effectiveness measurement.</p> <p>Effectiveness was before and after the program.</p>

2. Results

This review focused on OAE programs with school pupils regarding program type, program outcomes and methodological quality of research. Out of 3,535 articles, 8 were selected for final review during the selection process. The small number of papers passing the selection process (Figure 2) suggests that there could be a gap in quantitative research measuring the effectiveness of OAE programs with school pupils. It should be noted that some research used both qualitative and quantitative evaluation measures [Table 5: No. 1; 3; 8]. Even when quantitative measures showed no significant results, qualitative insights supported the significance of the OAE programs. However, despite the significance of qualitative results, this review focuses on quantitative results.

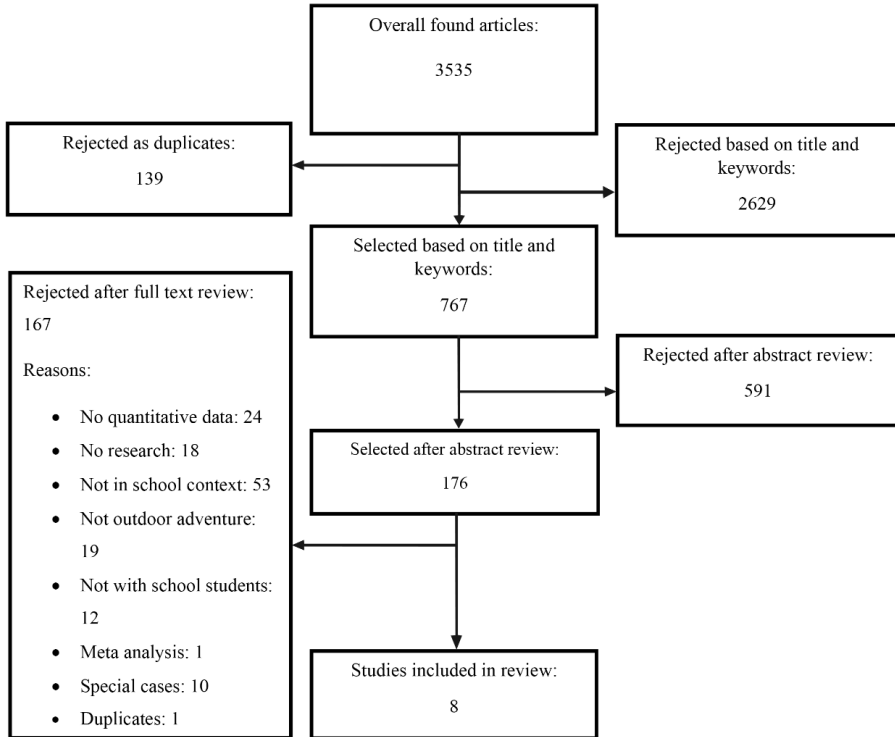


Fig. 2. Diagram of the research selection process

The analysis revealed that only one study [No. 1] focused on a particular school classroom. Other articles did not clarify whether student groups continue learning and spending time together after the program had ended; this could be left open for interpretation. This could suggest that OAE programs focus on individual rather than group goals, even when previous research suggests group benefits. Three studies focused on a single school [No. 1; 3; 6] and four were performed in multiple schools [No. 4; 5; 7; 8], while one study left a rather vague description, which cannot be fully discerned [No. 2]. Participants were primarily teenagers, the youngest group being 5th graders (age unspecified), while the oldest were 12th graders (aged 16–19). The number of participants varied from 24 to 335, with an average of 191.8 participants.

Program type. The results show that the duration, conditions, and circumstances of the OAE programs were different. Program duration varied from 1 day [No. 4] to 23 days [No. 6]. Another difference was evident in the way that programs spread throughout time. Of the 8 programs, 5 involved a one-time adventure – a single journey (independent of its duration) [No. 2; 4; 6; 7; 8] – while the other 3 [No. 1; 3; 5] had multiple regular outdoor adventures and reflection meetings with students throughout a certain time span of up to 3 years [No. 3]. Two

main categories of duration type can be noticed: single occurrence adventures and multiple adventure programs.

The program format also varied widely. Some involved programs in special outdoor residences created for experiential learning to provide participants with a challenging group experience, innovative tasks, and rope courses [No. 4; 8]. Others involved programs that took participants hiking through national parks and mountains or canyoning through rivers – a more natural environment [No. 2; 3; 6; 7]. Additionally, some programs involved a mixture of the above, with some parts of the program taking place in a school or special residence and others in natural surroundings [No. 1; 5]. Three main categories of OAE types can be noticed: a) those performed in special conditions; b) those performed in natural environments; and c) those with a combination of the two.

Program outcomes. These results reveal that OAE programs were applied to achieve various goals. Different measured constructs were observed: goals and aspirations [No. 1]; self-efficacy [No. 1; 2; 5; 8]; problem solving, empathy [No. 1]; group cohesion [No. 4]; school grades [No. 3]; self-concept [No. 2]; learning climate [No. 2]; spiritual dimension [No. 2]; relationships with nature [No. 8]; emotional intelligence [No. 6]; resilience [No. 5]; psychological strength [No. 8]; emotional difficulties [No. 8]; interpersonal connectedness [No. 8]; and growth mindset [No. 5]. Some constructs, such as emotional intelligence, psychological strengths, and emotional difficulties, had additional subscales, which in some cases could be considered as individual constructs (Table 5). However, the original definitions used by the authors are maintained in this study. Overall, 16 different constructs were measured in the reviewed studies. The most common construct, and the only one repeated in 4 studies, was self-efficacy [No. 1; 2; 5; 8]. Group cohesion and interpersonal connectedness, while named differently, could also be grouped under the theme of relationships.

Not all measured outcomes significantly improved after the OAE program. Research showed significant positive changes in *goals and aspirations* [No. 1], *group cohesion* [No. 4], *school grades* [No. 3], *spiritual dimension* [No. 2], *resilience* [No. 5], and *emotional intelligence* [No. 6] after the program was implemented. However, no significant change was found for *empathy* [No. 1], *problem solving* [No. 1], *learning climate* [No. 2], or *psychological strengths* [No. 8]. Ambiguous results were found for *relationships* and *self-efficacy*. Self-efficacy showed an increase in two studies [No. 1; 5], while no significant change in two others [No. 2; 8]. Relationships significantly increased in one study [No. 4] and showed no significant change in one [No. 8].

Unfortunately, outcomes and program type cannot be compared since only self-efficacy was measured in more than one study [No. 1; 2; 5; 8]. In this case, all programs which measured self-efficacy involved hiking, and their duration varied between 4 and 7 days and included reflection. However, despite the similarity of the programs, significant improvement in self-efficacy was revealed in only two [No. 1; 5].

Table 5. Reviewed literature: authors, adventure type and duration, participants, outcomes, findings, and group context.

No.	Authors	Adventure type and duration	Participants (quantity, country and age)	Quantitative variables	Significant findings	Group context
1.	Beightol et al. (2012)	10 meetings for 2-hour team-building seminars in school, followed by 3 day-long adventure excursions.	N = 105; 5th graders; New Mexico.	Goals and aspirations; self-efficacy; problem-solving; empathy.	Long-term improved goals and aspirations; short-term improved self-efficacy; no change in empathy and problem solving.	Entire 5th grade in a public school in Santa Fe, New Mexico.
2.	Cheung (2011)	Backpacking and mountain orienteering for 3 to 4 days.	N = 318; age: 16–19; China.	Self-concept; self-efficacy; learning climate; spiritual dimension.	Improved spiritual dimension. No change in others.	A case study in a certain school context (vague description).
3.	Fuller, Powell & Fox (2017)	Multiple different adventure activities (such as woodland archery, canoeing, mountain biking) with reflections. Two weekends a year, for 3 years.	N = 24; age: 14–16; UK.	Grades.	Improved English, math and science results.	Selected student groups at an academy school in southern England.
4.	Glass & Benschoff (2002)	1 day spent performing group exercises in a special outdoor adventure facility.	N = 167; age: 11–14; USA.	Group cohesion.	Improved group cohesion.	5–8th graders (volunteers) from three public schools in eastern North Carolina.
5.	O'Brien & Lomas (2017)	2-day introduction course; 2-day hike; 1 reflection day (total: 5 days).	N = 196; 6–9th graders; UK.	Self-efficacy, resilience; growth mindset.	Improved self-efficacy, increased resilience and mindset.	Students from three schools in the United Kingdom.

6.	Opper et al. (2014)	Outdoor adventure, including hikes and camping for 23 days (specifics lacking).	N = 76; 10th graders; South Africa.	Emotional intelligence (EQ) with subscales: interpersonal and intrapersonal abilities, stress management, adaptability and general mood.	Improved overall EQ and 3 of 5 sub-categories: intrapersonal skills, adaptability and general mood. No effect on interpersonal skills and stress management.	All participants were from a public all-boys school in South Africa.
7.	Wang et al. (2004)	5-day adventure camp.	N = 314; age: 12–16; Singapore.	Relationship between motivation to participate and program satisfaction.	Intrinsic motivation to participate predicts higher satisfaction with OAE program. External regulation decreases satisfaction in the program.	Students from three secondary schools in Singapore.
8.	Williams et al. (2018)	Outdoor adventure activities in a specific residence followed by a hike. Full duration of program – 7 days.	N = 335; age: 14–16; Australia.	Psychological strengths: self-efficacy, mental well-being, basic psychological needs. Emotional difficulties: anxiety, depression. Strengths and difficulties: interpersonal connectedness, nature relatedness.	No significant improvements or differences were found in comparison to control group.	2 public schools in Victoria, Australia, with Year 9 students.

Quality of methodology. Various common limitations were reviewed (Table 6), including: having a control group; validity and reliability of used measures and questionnaires; use of pre-test and chosen time of measure; measuring long term effects of the program; and clarity of program design and facilitators.

The results in Table 6 show that 4 studies had a control group [No. 1; 3; 5; 8], while 4 did not [No. 2; 4; 6; 7], which means that the findings of those studies relied on the participating group alone. All reviewed research had a certain description of the validity and reliability of their questionnaires. However, one of them did not provide reliability measures [No. 1]. All reviewed

research provided a description and reasoning for using their questionnaires to measure their constructs and used pre-test measures for effects. Of the 8 studies, 5 research designs [No. 1; 3; 5; 6; 8] performed more than one post-test, thus measuring long-term effects, while 3 research designs [No. 2; 4; 7] did not. However, 2 studies [No. 4; 6] used pre-test and post-test immediately before and after the program, 2 studies [No. 1; 2] provided no details, and 4 studies [3; 5; 7; 8] used pre-test at a separate time from the day of the program. All mentioned research provided understandable and clear results and statistical analysis; 5 studies [No. 1; 3; 4; 5; 8] provided clear and comprehensive descriptions of the OAE program, while 3 studies [No. 2; 6; 7] had abstract and non-replicable descriptions. Furthermore, 3 studies [No. 4; 5; 8] provided descriptions of facilitators or group leaders, while 5 studies [No. 1; 2; 3; 6; 7] did not.

Table 6. Methodological qualities of reviewed research

No	Authors	Control group?	Questionnaire V&R	Time of measure	Measured long-term effects	Clear program/intervention design?	Facilitator information
1.	Beightol et al. (2012)	Yes.	Validity provided. Reliability not provided.	Unclear time of pre-test and first post-test. Second post-test 4 months after program.	4 months.	Yes.	No information.
2.	Cheung (2011)	No.	Provided both validity and reliability.	Unclear time of pre-test and first post-test.	None.	No.	No information.
3.	Fuller, Powell, & Fox (2017)	Yes.	Not-applicable (measure of grades).	Several days before and after program, three years of follow-up measurements.	3 years.	Yes.	No information.
4.	Glass & Benshoff (2002)	No.	Provided both validity and reliability.	Same day as program on both pre and post testing.	None.	Yes.	8 group leaders with 3–15 years of experience.
5.	O'Brien & Lomas (2017)	Yes.	Provided both validity and reliability.	Week before program, immediately after and one month after program.	1 month.	Yes.	Professional facilitators with 3–10 years of experience.

6.	Opper et al. (2014)	No.	Provided both validity and reliability.	Same day as program on both pre and post testing. Second post-test 3 months after program.	3 months.	No.	No information.
7.	Wang et al. (2004)	No.	Provided both validity and reliability.	Week before and after the OAE program.	None.	No.	No information.
8.	Williams et al. (2018)	Yes.	Provided both validity and reliability.	Two pre-test measures, and three post program measures.	2 years.	Yes.	Each group had a facilitator and a school staff member.

3. Discussion

This review sought to gain more insight into the field of OAE in the context of schools. To this end, 8 studies involving OAE programs for school pupils were selected for final review. The review focused on three main aspects: OAE program type and duration, program outcomes, and methodological quality of the studies. The results show that the duration and type of programs varied strongly – from a day’s hike to three years of follow up meetings. Significant outcomes, while ambiguous, can be noticed in self-efficacy, group cohesion, interpersonal relationships, grades, etc. However, some studies have strong methodological limitations, such as a lack of a control group (Glass & Benshoff, 2002) or questionable times of measurement (Opper et al., 2014).

During the literature search, most research focused on qualitative evaluation methods to evaluate the effectiveness of OAE programs. Many OAE programs and interventions focused on specific student groups, delinquent teenagers, or motivated youth who wanted to participate in similar programs. It can be observed that research on OAE programs with school pupils is lacking, which is unfortunate since almost every child spends a significant amount of time with classmates, and this context can be important. This review reveals that OAE can potentially improve cohesion (Glass & Benshoff, 2002) and self-efficacy (O’Brien & Lomas, 2017). It is also known that classroom dynamics (Ghaith, 2002) and self-efficacy (Tenaw, 2013) relate to academic achievement. This was indirectly demonstrated by Fuller, Powell and Fox (2017), who performed a mixed research design involving qualitative measures of self-efficacy and quantitative measures for grades. After an OAE program with students, qualitative data revealed improvement in self-efficacy, while quantitative data showed improvement in grades. This could be a serious argument for the use of OAE in formal education as a tool to improve not only the psychological well-being of students but also their academic achievements.

While there are other interventions and programs which could improve various aspects of self-efficacy (Falco & Summers, 2019), OAE puts group processes at the centre of attention, which creates space for improved cohesiveness and interpersonal relationships. Since group

cohesion can change throughout the OAE program (Sibthorp & Jostad, 2014), this suggests that we cannot generalise results between groups that stay together after the program and those that go their separate ways. Some of the reviewed research focused on one school or class, but only one reviewed study measured the long-term effects of interpersonal relationships. However, no significant differences in interpersonal connectedness were noticed in comparison to the control group (Williams et al., 2018). Relationships did develop, but since this also occurred in the control group, it can be questioned whether this occurred due to the OAE program or due to other potential factors such as the natural dynamic of group development. Additionally, while Glass and Benschhoff (2002) observed improved cohesion after one day of OAE activities, this was measured immediately after the program, suggesting a momentary sense of cohesion rather than long-term improvement.

Similarly, the potential of OAE programs to improve group cohesion was observed in higher education; however, this was overshadowed by methodological limitations (Cooley, Burns & Cumming, 2015). Thus, while OAE is seen to improve cohesion in various groups (Sibthorp & Jostad, 2014) and qualitative research indicates significant improvements in social connectedness (Richmond et al., 2018), it appears that quantitative research does not bring certainty in an educational setting. Unfortunately, only two studies in this review provided more detailed information about the group. Details such as noting whether pupils are classmates or schoolmates, how long they have been together, and what their relationships are outside of the OAE program could be crucial in learning more about the group benefits of OAE in a school setting. Despite this, qualitative information suggests that OAE provides benefits to students even if they are not represented in quantitative data (Williams et al., 2018). This indicates that it is likely that what is measured with quantitative measures may not be the same as what is improved during OAE programs.

It is important to note that group cohesion and other group-level effects are extremely difficult to operationalise. There is more than one way to measure group cohesion. For example, some researchers measure classroom group cohesion based on an average number of sociometric nominations (Martín Babarro et al., 2017), suggesting that the more classmates an average pupil likes, the higher the cohesion. Another method, as was performed in research reviewed in this paper, is to measure cohesion based on questionnaires that evaluate the subjective perceptions of students (Glass & Benschhoff, 2002). When measuring cohesion through subjective evaluation, there should be a relative consensus between group members (Gully, Devine & Whitney, 2012). For example, if students answer questions about group cohesiveness and some members suggest high cohesiveness while others low, this could indicate that some group members had fun and made friends, while others did not. This would tell us little about the cohesiveness of the group. Secondly, even if we have a consensus between group members, we do not know if the measure of cohesion is accurate compared to other groups (Marsh et al., 2012). For example, members of a very cohesive group with norms of being highly critical of themselves could evaluate their cohesiveness lower than members of a new group who are in a “honeymoon” stage. Regardless, the complexity of measuring group cohesion could partly explain why qualitative data reveals significant results while quantitative data struggles. Overall, more research is needed to measure the development of a class as a group during OAE programs. While a lot of research has been performed with school-aged children on the individual development and interpersonal skills

levels, little research has focused on the development of the class as a group, and no research has involved OAE in this regard (Richmond et al., 2018). It could benefit our knowledge about group development after an OAE program if this kind of research involved longitudinal sociometric data; however, such a research design would require a lot of resources.

In terms of OAE program duration and type, it appears that OAE programs are flexible and vary throughout studies. Despite this, two main areas of variation could be noticed – duration and activity. Some adventures were performed in special OAE facilities – they focused on challenging tasks that quickly forced groups out of their “comfort zone” and demanded group work. Other adventures were hike oriented, and the challenges were more long-term and abstract (occurring naturally – the need to build a campfire, make food, etc.). The duration of a single adventure varied from 1 day to 23 days. Some programs involved multiple shorter experiences and encounters with facilitators that occurred in a time span of up to three years. Thus, two types of programs can be discerned: single and multiple encounters. While some research suggests that longer programs show better outcomes (Hattie et al., 1997), this review cannot confidently support this statement. This is due to the very different program types, possible contexts of program conditions (facilitators, previous relationships etc.) and methodologies of these studies. Williams et al. (2018) found no significant longitudinal change in group relationships after a 7-day program, while Glass and Benschhoff (2002) noticed improved group cohesion after one day but measured it immediately after the program. Alongside methodology, there were differences in facilitators, group activities, school context etc., which are all important in OAE (Sibthorp & Jostad, 2014). A similar case is with self-efficacy, which improved in one study and did not improve in another, while both programs were reasonably similar on paper (O'Brien & Lomas, 2017; Williams et al., 2018). A study performed by Mygind (2009) revealed significant individual and relationship benefits just by having classes in the forest in various weather conditions, without adding additional challenges. This could suggest that a change of scenery and the presence of nature may benefit pupils, strengthening the importance of nature in OAE (Neill, 2008). Thus, it seems that there is no single way of creating an OAE program, and perhaps there does not have to be. It is possible that OAE programs should accommodate each unique group. However, the current review reveals an important necessity for quantitative research: *program details, facilitator details, activities and pre-existing group relationships* should be described thoroughly. Since programs differ so drastically, if research provides only narrow descriptions of context, the field of OAE could fall into a pit of non-replicable results. Since implementing longitudinal research and OAE programs in school settings can be challenging due to the demands of formal education, every study is essential and calls for methodological rigour.

The reviewed research measured various outcomes of OAE programs. Since many constructs have been measured and effects found, it seems that finding the focal point and the primary construct is difficult. Scrutton and Beames (2015) suggest that OAE programs are often associated with social development, yet this construct is too broad. Therefore, it is understandable that many researchers choose qualitative evaluation while keeping in mind the fact that different groups led by various facilitators come to different conclusions. In terms of measured outcomes, the same problem occurs as noticed in previous research (Hattie et al., 1997) – the variety of measured constructs is too broad. The 8 reviewed papers measured 16 different outcomes, and some even had additional subcategories. Throughout the reviewed research papers, only self-

efficacy and interpersonal relationships were repeated across more than one study. Essentially, this broad spectrum of potential outcomes may be a good thing, as it suggests that OAE can act as a form to acquire different results. O'Brien & Lomas (2017) showed that adding an additional intervention direction to an OAE program may bring additional benefits. The authors included growth-mindset training alongside the OAE program, and showed significant results in that regard compared to the control group. This suggests that a clear additional direction may improve the results of an OAE program. Furthermore, as mentioned before, this strengthens the idea that programs can be constructed to accommodate the group's needs.

While 16 constructs were measured, there are ways to group them. Most of them fit in the same categories as suggested by Hattie and colleagues (1997): *academic achievements*, *self-concept*, *personality*, *leadership*, *interpersonal skills* and *being adventurous*. However, more recent research has focused on *group cohesion* as an essential outcome of such programs (Sibthorp & Jostad, 2014). It could be suggested that group cohesion and interpersonal skills should not be grouped into the same category. Interpersonal skills represent individual characteristics, while group cohesion represents the subjective evaluation of current relationships in the group. It also seems that these dimensions do not fall far from the three main categories mentioned by Cooley (2015): *leadership*, *group cohesion* and *self-concept*. Based on the above presuppositions, we could propose to group these categories from the perspective of benefits to the individual and the group. In this case, self-concept would represent the individual benefits of OAE, leadership would represent the benefits of individual interactions with the group, and group cohesion would represent the relationships in the group itself. In other words, a proposition of grouping could be made stating that three points of development can be noticed during OAE programs: a) the personal development of the individual; b) the development of the interaction between group and individual; and c) the development of the group itself. While this grouping would not directly help operationalize the possible outcomes of OAE programs, it could give a direction for practitioners. A choice of direction could be important, especially regarding focusing on the group. If the OAE program is performed with a group that will dissipate after the program, there could be no benefit in focusing on group cohesion; thus, more focus should be placed on individual personal development. On the other hand, the opposite may be true in an educational setting where the group will potentially stay together after the OAE program is finished.

The final point of interest was the methodological strength of reviewed research. It can be observed that the quality varied strongly. Some research was methodologically strong, implementing strong pre-testing, a control group and measuring long-term effects through rigorous post-testing (Fuller, Powell, & Fox, 2017; Williams et al., 2018), while other research relied on a single pre-test and a single post-test, performing testing the same day as the program (Glass & Benshoff, 2002). Measuring the effect right after the program places a great shadow over the validity of the results and is not recommended (Scrutton & Beames, 2015), as it is hard to know if momentary emotion or actual change is measured in such conditions. Out of the 8 reviewed studies, 4 had no control group, which is a big concern for developing public knowledge on the effects of OAE. The lack of a control group again taints these results, since it cannot be known if the results occurred due to the program. On the bright side, it seems that research on OAE in the context of schools is growing, and new and high-quality research is being executed (Sheard & Golby, 2006; Williams et al., 2018). This will hopefully lead to a more robust understanding of

how this research should be performed and more generalisable results.

All in all, to systematically use OAE in the future to provide schools and classrooms with a measured and profound program, more research must be undertaken. This systematic review adds insights into OAE programs with school pupils. These findings mostly go alongside previous research (Hattie et al., 1997; Cooley, Burns & Cumming, 2015) showing that OAE programs performed in the school context vary in duration and type, with many outcomes that are measured. However, adding to previous insights, this study suggests a possible perspective on grouping outcomes based on three levels: individual, individual in relation to group, and group. These findings also confirm that school context is no exception to methodological limitations in OAE research (Scrutton & Beames, 2015). This study also reveals a new research gap for long-term, group-level effects in the school context. Since more recent research focuses on the group as the centrepiece of OAE, it would be very beneficial to see how OAE may help classroom cohesion develop. Additionally, it seems that OAE programs could be a great addition to boosting classroom cohesion relationships and student self-efficacy. More rigorous and longitudinal research needs to be performed to support these claims.

Limitations and recommendations. There are several recommendations that could be made based on this literature review. Firstly, future researchers in the field of OAE should keep in mind and describe the various possible influential factors which could be critical to the outcomes of the program, such as: program details, facilitator information, participants and their relationships, and methods. Without a clear description of these details, it becomes nearly impossible to build upon the existing knowledge as possible criteria are unknown. Secondly, this review reveals a wide gap in knowledge on how OAE programs affect the classroom as a group. More longitudinal research that includes OAE programs for school classrooms that stay intact after the program would be beneficial. While there are some insights that OAE may help develop group cohesion, this needs more support. A promising direction for future research would be to measure elements of classroom cohesion and development with and without OAE programs. It would also be beneficial to clearly define what is considered group cohesion in every specific case, and the collection of sociometric data could give important insights into the development of a group after an OAE program.

This research also provides a recommendation for practitioners to choose a clear point of focus. It could be beneficial to know whether the OAE program is oriented towards group-level effects, individual skills, or interpersonal skills. Additionally, this review provides insights in support of adding additional interventional goals, such as a growth mindset, for OAE programs. This could improve the benefits of OAE in an additional desired direction.

In terms of the limitations of this study, a few must be mentioned. Firstly, the search and review in this study was performed by one researcher, which always leaves a greater possibility of a Type 1 error – rejecting an article that should have been included. Secondly, not all databases were included in the search. Thus, there is a chance that more studies could have been found. Thirdly, only 8 articles met the criteria for this review, and several articles had strong methodological flaws. While these articles provide important insights into the existing state of research in the field, they also cloud the mentioned benefits of OAE.

Conclusion

A systematic review of OAE programs in the context of schools was performed. These findings go alongside previous research conducted in different contexts. OAE programs differ in duration and type throughout different studies and face common methodological issues. These include lack of control group, bad timing of measurement and lack of longitudinal testing, and unclear description of participants and program details. Additionally, many outcomes are measured as possible results of OAE programs, which casts doubt on what the point of focus should be. Several insights regarding measuring group cohesion are provided. A new gap in knowledge is revealed concerning the long-term effects of OAE programs with school classrooms that remain intact after these programs. Overall, this review shows that there is a lack of rigorous research regarding OAE programs with school pupils and suggests several important notes for future research.

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SYSTEMATIC REVIEW OF OUTDOOR ADVENTURE EDUCATION PROGRAMS IN SCHOOLS

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Summary

Outdoor adventure education (OAE) programs have shown success at improving the self-efficacy, interpersonal skills, and group cohesion of adolescent groups. These findings suggest that OAE programs could be a successful method of intervention for school classrooms in order to enhance pupils' personal and interpersonal skills. Such programs and other similar measures are being implemented in various schools in Lithuania; however, as yet no papers have investigated existing research on the effectiveness of these programs in schools. This systematic literature review assessed quantitative research which was performed on programs based on OAE and performed with school children. Three main points of interest were investigated: a) What psychological and social dimensions benefit from OAE programs? b) What types of programs are used in the school context? c) What methodological issues are common? Data were collected from 7 databases using a syntax representing the concepts of OAE programs and schools. Out of the 3,535 articles identified, 8 were selected which fit the criteria of involving quantitative results measuring the effectiveness of OAE programs performed with school pupils. The 8 reviewed studies measured 16 potential outcomes of OAE programs, out of which goals and aspirations, group cohesion, grades, the spiritual dimension, and resilience showed a significant improvement; problem solving, learning climate and psychological strengths showed no significant improvement; and self-efficacy and interpersonal relationships showed ambiguous results. However, these studies varied both in program type and methodological rigor. Program duration varied from 1 day to 23 days, and some involved a one-time adventure while others included multiple separate brief adventures. Additionally, serious methodological differences may also skew these results. Out of these 8 studies, only 4 included a control group, and 3 studies performed only one post-test measurement – 2 of which did so immediately after the intervention. Only 3 studies provided a broad description of the OAE program, which would allow for replication, while 5 studies did not. These results indicate that while OAE programs are a tool of great potential for improving various personal and interpersonal skills of pupils in school classrooms, there is a need for more and more rigorous research which could support these claims. In the reviewed literature, highly rigorous studies showed no significant improvements in self-efficacy, while less methodologically rigorous studies provided significant results. However, qualitative data shows that OAE programs help students and that this change is noticeable. This suggests potentially incorrect outcomes, or that a different approach could be necessary to build a stronger claim for the use of OAE programs in schools. We recommend that future studies involving OAE and other interventions use methodological rigor, include elaborate descriptions of the intervention, use a control group, and

use pre and post testing at separate time points from the intervention. Additionally, we suggest that professionals choose a point of focus for the intervention – is it oriented towards the individuals in the classroom or the classroom as a group? To conclude, OAE programs are a potential tool to improve life in the classroom; however, more rigorous quantitative research is needed.

Keywords: *outdoor adventure education, school, classroom, systematic review.*

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LINKS AMONG BULLYING, PSYCHOLOGICAL RESILIENCE, AND THE WORK ENGAGEMENT OF EMPLOYEES: CAN PSYCHOLOGICAL RESILIENCE AS A MEDIATOR REDUCE THE NEGATIVE EFFECT OF BULLYING ON WORK ENGAGEMENT?

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Abstract

Although the prevalence of bullying at work varies from country to country, organizations of all types, natures, and sizes face this problem. The phenomenon of bullying at work is identified as a critical stressor, with serious consequences at both the individual and organizational levels. The aim of this research is to determine the links among bullying, psychological resilience, and the work engagement of employees. It is hypothesized that: a) more frequent bullying in the work environment will be negatively related to employees' psychological resilience and work engagement; b) psychological resilience will be positively related to employee work engagement; and c) the psychological resilience of employees acts as a mediator between the bullying they experience in the workplace and their work engagement. This research involved 187 participants from Lithuanian organizations of various types and sizes. Three measures were used for the research: the Negative Acts Questionnaire – Revised (NAQ-R); the Resilience Scale (RS-14); and the Utrecht Work Engagement Scale (UWES-9). In addition, sociodemographic questions were included in the research questionnaire. The main results of the research revealed that bullying in the workplace is significantly negatively related to the psychological resilience and work engagement of employees.

The correlation analysis indicated that the psychological resilience of employees had significantly positive correlations with the work engagement of employees. The mediation analysis demonstrated that psychological resilience mediates the relationship between the bullying of employees at work and their work engagement. It was found that the inclusion of a mediator reduced the magnitude of the effect, i.e., psychological resilience slightly reduced the negative effect of bullying in the workplace on the work engagement of employees.

Keywords: *bullying in workplace, psychological resilience, work engagement.*

Introduction

Globalization processes are challenging organizations to remain competitive, open and dynamic in the global marketplace. Often, various stressful situations, competition, tension and other difficulties become inseparable parts of work for contemporary employees. Bullying at work is no exception. It is observed that bullying is widespread in today's world of work, and although its prevalence varies from country to country, organizations of all types, natures, and sizes face this problem (Mathisen et al., 2011; Astrauskaitė & Kern, 2011). The phenomenon of bullying at work is identified as a critical stressor, with serious consequences at both the individual and organizational levels (Podsiały & Gamian-Wilk, 2017). Bullying in the work environment can influence the organizational climate, work efficiency, and productivity (Bano & Malik, 2013). It is observed in the scientific literature that bullying in the work environment is associated with higher intentions of employees to leave the organization, more frequent morbidity, chronic fatigue, increased anxiety, and various psychosomatic pains (Salin, 2015; Nielsen & Einarsen, 2018; Skuzinska et al., 2019). It also entails lower work efficiency and commitment to the organization, along with reduced work satisfaction and organizational citizenship (Podsiały & Gamian-Wilk, 2017; Bano & Malik, 2013; Tuckey et al., 2009; Muazzam et al., 2020). Employees who have experienced bullying at work have been found to feel less useful and generally needed by their organizations (Park & Ono, 2017). In addition, Rai and Agarwal (2017) found that bullying at work is significantly related to the employee's work engagement. Trepanier et al. (2013) agreed, adding that bullying at work not only reduces employees' work engagement but also reduces employees' identification with the organization. According to Koyuncu, Burke, and Fiksenbaum (2006), work engagement results from employees' contact with their work environment.

Employee work engagement is particularly important for organizations because, as Rana and Chopra (2019) point out, it is related to an organization's competitive advantage. Park and Ono (2017) found that bullying had a negative impact on employees' work engagement and their perceived health, and bullying increased employees' feelings of insecurity in the workplace, which influenced their level of work engagement. Employees who experienced bullying at work indicated that they felt less useful and needed in their work. Rai and Agarwal (2017), who surveyed 835 workers in the manufacturing and service sectors in India, also indicated that bullying was significantly related to work engagement. Further research by Trepanier, Fernet, and Austin (2013) found that bullying at work harms employees' emotional health and reduces their identification with the organization, thereby increasing the risk of burnout and reducing work engagement. They explained their results based on self-determination theory, according to which the satisfaction of basic psychological needs is a necessary condition for the optimal

functioning of a person and the maintenance of motivation. It is important to emphasize here that social environment plays an important role in meeting the most important psychological needs of a person (employee). Trepanier et al. (2013) argued that a supportive social environment promotes employees' satisfaction of needs, ensures optimal functioning, and promotes subjective well-being – and vice-versa. The results of their research indicated that bullying at work reduces the resources available to employees, influences their needs for autonomy, connectiveness and competence, and disrupts their optimal functioning in the work environment (involvement decreases, risk of burnout increases) (Trepanier et al., 2013). Goodboy, Martin, and Bolkan (2020) found that bullying at work indirectly reduced employee work engagement. Cases of bullying at work, such as ignoring, teasing, or gossiping, made it difficult for employees to meet their basic psychological needs (autonomy, connection, competence) at work. Based on this approach, the frustration of needs in the work environment leads to a decrease in employee motivation and decreased work engagement (Goodboy et al., 2020).

Thus, it is important to identify factors that, in case of bullying in the workplace, would help employees reduce or eliminate adverse components and help maintain work engagement. Researchers agree that a person's psychological resilience is critical to their mental and physical health (Wagnild, 2016). In the organizational context, resilience is seen as the ability of employees to overcome difficulties in the workplace (Maidaniuc-Chirila, 2015; Coco et al., 2021). In New Zealand, a case study by van Heugten (2012) of social workers who identified themselves as victims of bullying at work demonstrated that despite the negative factors they experienced in the work environment, not all workers suffered long-term negative effects on their physical or psychological health. According to the author, it is clear that the relationship between bullying at work, effects on health, and work factors is influenced by mediators, one of which may be a person's psychological resilience. Therefore, the question is: Can psychological resilience be a protective factor for employees who face the risk of bullying?

Research by Meseguer de Pedro, together with co-authors (2019), indicated that bullying in the work environment led to greater deterioration in the health of employees with lower levels of resilience; meanwhile, employees with higher levels of resilience were able to adapt better to unfavorable stressful work conditions and were able to reduce their discomfort. They found that bullying situations at work can lead to the use of personal resources (Meseguer de Pedro et al., 2019). Resilience has played the role of a partial mediator between bullying in the work environment and subjectively perceived health. Psychological resilience mitigated the negative effects of bullying on the subjectively perceived health of individuals. However, bullying in the work environment can weaken employees' personal resources and their ability to 'stand for themselves' (Meseguer de Pedro et al., 2019).

The results of research by Maidaniuc-Chirila (2015) revealed that employees with higher levels of psychological resilience, even after experiencing bullying in the workplace, felt less tension (mental and physical) compared to employees with lower levels of resilience. According to the author, resilience can be a personal resource of an employee that is used to overcome difficulties which are incurred by the phenomenon of bullying in the work environment. Bano and Malik (2013) observed that resistance may play a protective role. Gatiss (2019), who examined strategies for overcoming bullying at work in a sample of women, agreed that the use of psychological resilience as a personal resource can help protect employees from the harmful effects of bullying

on health. Dai and co-authors (2019) argued that greater psychological resilience of individuals can reduce employees' intentions to leave the organization and enhance their work engagement. The authors found that greater personal resilience allowed employees to recover faster from work difficulties and helped maintain a positive work attitude and engagement (Othman & Nasurdin, 2011). Wang, Li, and Li (2017) found that psychological resilience was positively associated with work engagement, predicting that more resilient employees have more personal resources and are more likely to engage in their work. Personal and work resources are important for achieving work goals and employee work engagement (Wang et al., 2017).

Thus, it can be seen that employees with higher levels of psychological resilience, even after experiencing bullying at work, felt less tension and were better able to adapt to stressful work conditions, and were able to reduce discomfort (Maidaniuc-Chirila, 2015; Meseguer de Pedro et al., 2019) and to manage the stressful situation itself (Luthans & Youssef, 2004). Rook and co-authors (2018) considered psychological resilience as one of the most important factors enabling an employee to successfully overcome difficulties. While there are many different views on the importance of resilience and how much attention we should pay to it in the workplace (Rabenu & Tziner, 2016; Britt et al., 2016; Bec et al., 2018), we can assume that resilience can reduce the impact of bullying at work on work engagement. Thus, research suggests that bullying at work is negatively related to work engagement and that psychological resilience helps to overcome existing difficulties at work. In this research, the assumption is made that not only will bullying at work be negatively related to work engagement and psychological resilience, but employees' psychological resilience will also act as a mediator between bullying in the work environment and work engagement. The latter will thus serve as a protective factor, reducing the impact of bullying at work on work engagement.

Thus, the aim of this study was to determine the links among employee bullying at work, psychological resilience, and work engagement. It is hypothesized that: a) more frequent bullying in the work environment will be negatively related to employees' psychological resilience and work engagement; b) psychological resilience will be positively related to employee work engagement; and c) the psychological resilience of employees acts as a mediator between the bullying they experience in the workplace and their work engagement.

1. Materials and methods

Participants. In total, 187 research participants working in Lithuanian organizations of various types (public and private) and sizes (very small, small, medium and large) in March–April 2021 participated in this research. Due to the extraordinary situation and the quarantine announced after the outbreak of COVID-19 in the country, the entire sample of this research was collected through an online survey. Research participants were selected by availability sampling. Participants were informed and assured that their responses were completely anonymous and confidential, and that they were under no obligation to participate and could withdraw at any stage. Participants gave their informed consent to participate in this study. They were also informed that there was no right or wrong answer: we only required an honest answer, one that represents their true perception and experience. A larger share of participants (63%; $n = 117$) were female than male (37%; $n = 70$), and the age of the research participants ranged from 21 to 67 years, with an average age of 39 ($SD = 11.17$). The distribution of the sociodemographic data

of the research participants is presented in Tables 1 and 2.

Table 1. Research participants' gender and education level

Indicators		N	Percent
Gender	Female	117	63%
	Male	70	37%
Education level	Basic	8	4%
	Secondary	53	28%
	Vocational	40	22%
	Post-secondary/vocational	34	18%
	Higher (college)	52	28%
	Higher university		

Note: $N = 187$

Table 2. Participants' working time and type and size of organization

	Indicators	N	Percent
Working time in current position	Up to 1 year	21	11%
	1–5 years	60	32%
	5–10 years	44	24%
	10+ years	62	33%
Organization type	Public	72	39%
	Private	115	61%
Organization size*	Very small (less than 10 employees)	26	14%
	Small (less than 50 employees)	56	30%
	Medium (more than 50 but less than 250 employees)	62	32%
	Large (more than 250 employees)	42	22%

Note: $N = 187$

* $N = 186$ (1 participant did not specify the size of their organization)

Methods. The questionnaire was divided into four parts in order to identify the links among bullying at work and the psychological resilience and work engagement of employees:

a) *Sociodemographic questions for the participants of the research.* The gender, age, education and length of service in the current position of the research participants were recorded. Participants of the research were also asked what type of organization (private or public) they currently worked in and what size (very small, small, medium, large) it was. Sociodemographic questions were presented to the research participants following the recommendations of a number of authors (Wagnild, 2016; Einarsen et al., 2009; Notelaers & Einarsen, 2012; Gupta et

al., 2017).

b) *The Negative Acts Questionnaire – Revised (NAQ-R)* (Einarsen et al., 2009; Notelaers & Einarsen, 2012). To assess the participants' subjectively perceived experiences of bullying in the work environment, the use of the NAQ-R was chosen for this research, which assesses how often employees have experienced negative behaviors in the work environment (Gupta et al., 2017). The NAQ-R consists of three subscales that reflect different experiences: 1) *bullying related to the work being done* (e.g., “your work has been over-controlled”), which describes negative behavior of others aimed at the person's ability to work competently and perform their professional role in the work environment (includes all work activities) (Einarsen et al., 2009; Notelaers & Einarsen, 2012); 2) *bullying related to a person individually* (e.g., “gossip and rumors have been spread about you”), which describes negative behaviors of others that are directed at degrading a person's dignity (including gossip, excessive teasing, social exclusion, etc.) (Einarsen et al., 2009; Notelaers & Einarsen, 2012); and 3) *bullying associated with physical intimidation* (e.g., “you were shouted at or targeted with spontaneous anger”), which reflects negative and aggressive (physical) behavior that is directed toward a person's safety (includes intimidation, threats, and physical violence) (Einarsen et al., 2009; Notelaers & Einarsen, 2012).

The statements in the questionnaire reflect the indirect and direct bullying that a person can experience in the work environment. Research participants had to read each statement carefully and mark the response option that reflected how often they had encountered such behavior in their work over the *past six months*. The statements were rated on a 5-point Likert-type scale, ranging from 1 *never* to 5 *daily* (answer variants describe frequency). The overall score of the NAQ-R can range from 22 points to 110 points. Higher scores indicate that a person is more likely to encounter bullying in their work environment (Einarsen et al., 2009). The NAQ-R is reported to have high reliability and validity rates, with overall internal consistency coefficients (Cronbach's alpha) of 0.90 (Einarsen et al., 2009; Notelaers & Einarsen, 2012). The internal consistency coefficients (Cronbach's alpha) of the NAQ-R questionnaire obtained in this research are presented in Table 3.

Table 3. Internal Consistency Coefficients of the Negative Acts Questionnaire – Revised (NAQ-R)

General scale/subscales	Internal consistency coefficients (Cronbach's alpha)
General NAQ-R	0.95
Bullying related to work being done	0.90
Bullying related to a person	0.91
Bullying related to physical intimidation	0.60

Note: $N = 187$

c) *The Resilience Scale (RS-14)*. To assess the psychological resilience of the research participants, the short version of the Psychological Resilience Scale (RS-14), developed by Wagnild, was chosen for this research. This consists of five main sub-scales of psychological

resilience: perseverance, purposeful life, self-reliance, equanimity and existential aloneness (authenticity) (Wagnild, 2016). The short version of the Resilience Scale consists of 14 statements on a 7-point Likert-type scale, ranging from 1, *strongly disagree*, to 7, *strongly agree* (e.g., “I often take life events calmly”). The overall score on the Psychological Resilience Scale (RS-14) can range from 14 to 98 points, and higher scores indicate a person’s higher psychological resilience. Wagnild (2016) reported an internal consistency coefficient (Cronbach’s alpha) of 0.93 of the scale (RS-14). The internal consistency coefficients (Cronbach’s alpha) obtained in this research are presented in Table 4.

Table 4. Internal Consistency Coefficients of the Psychological Resilience Scale (RS-14)

General scale/subscales	Internal consistency coefficients (Cronbach’s alpha)
General RS-14	0.96
Perseverance	0.83
Purposeful life	0.83
Self-reliance	0.92
Equanimity	0.61
Existential aloneness (authenticity)	0.86

Note: $N = 187$

d) *The Utrecht Work Engagement Scale, UWES-9* (Schaufeli & Bakker, 2004, 2006). To assess the work engagement of the research participants, the shortened version of the Utrecht Work Engagement Scale, UWES-9, was used (Schaufeli & Bakker, 2006). The Work Engagement scale consists of three sub-scales that reflect dimensions of work engagement: vigor, dedication, and absorption. The statements of the scale reflect employees’ potential feelings at work (e.g., “I am completely immersed in my work,” “my work inspires me”). All nine statements on the scale are rated on a 7-point Likert-type scale, and research participants are asked to indicate the frequency with which they feel the corresponding mood at work, from *never*, 0, to *daily*, 6 (Schaufeli & Bakker, 2004). Higher scale values indicate the greater work engagement of the person. According to the authors, Cronbach’s alpha on the UWES-9 ranges from 0.89 to 0.97 (median 0.93). The Cronbach’s alpha of the vigor subscale ranges from 0.75 to 0.91; the dedication subscale from 0.83 to 0.93; and the absorption subscale from 0.70 to 0.84 (Cronbach’s alpha) (Schaufeli & Bakker, 2004). The internal consistency coefficients (Cronbach’s alpha) obtained in this research are presented in Table 5.

Table 5. Internal Consistency Coefficients of the Utrecht Work Engagement Scale (UWES-9)

General scale/subscales	Internal consistency coefficients (Cronbach's alpha)
General UWES-9	0.93
Vigor	0.77
Dedication	0.85
Absorption	0.77

Note: $N = 187$

Statistical analysis of the research data was performed using the SPSS 21.00 (*Statistical Package for Social Science*) software package. Prior to the analysis of the research data, it was checked whether the data corresponded to the normal distribution. According to the Shapiro-Wilk criterion, the distribution of all study variables was significantly different from statistically normal ($p < 0.05$), and the graphs of the distribution of the variables did not visually correspond to normal distribution. Therefore, non-parametric statistical criteria were chosen for further data analysis, which involved the Spearman correlation coefficient. The Hayes PROCESS plugin for the SPSS software package was used to calculate mediation, which is appropriate for data that do not conform to the normal distribution because of the use of the Bootstrap method (Hayes, 2017).

2. Results

Descriptive statistics. This part of the work presents the descriptive statistics of the variables that were calculated to identify the general characteristics of the researched constructs (bullying at work, psychological resilience, and work engagement). Therefore, the tables below (Tables 6, 7, and 8) show the means, medians, standard deviations, and minimum and maximum values of the scales and subscales.

It can be seen in Table 6 that, when assessing the parameters of employee bullying in the work environment and its components, the largest bullying at work score was 88 points, while the maximum score of the questionnaire is 110 points. The mean of bullying in the work environment was 29.97, the median was 26.00, and the standard deviation was 11.09.

Table 6. Parameters obtained from bullying in the work environment and its components

Bullying in the work environment and its components	Parameters				
	Mean	Median	Standard deviation	Minimum value	Maximum value
Bullying related to work being done	11.96	10.00	5.24	8	35
Bullying related to a person	14.30	12.00	5.31	11	45
Bullying related to physical intimidation	3.71	3.00	1.37	3	15
General bullying in the work environment	29.97	26.00	11.09	22	88

Note: $N = 187$

We can see from Table 6 that the highest value obtained in any subscale of bullying in the work environment was for bullying related to a person ($Md = 12.00$; $SD = 5.31$).

Table 7. Parameters obtained from psychological resilience and its components

Psychological resilience and its components	Parameters				
	Mean	Median	Standard deviation	Minimum value	Maximum value
Perseverance	10.58	11.00	2.60	2	14
Purposeful life	16.21	17.00	3.61	3	21
Self-reliance	27.32	29.00	5.88	5	35
Equanimity	10.22	11.00	2.54	2	14
Existential aloneness (authenticity)	10.80	12.00	2.61	2	14
General psychological resilience	75.13	80.00	16.00	14	98

Note: $N = 187$

Analyzing Table 7, it is evident that the highest score in assessing the overall psychological resilience of employees was 98 points – the maximum possible score of the questionnaire. ($Md = 80.00$; $SD = 16.00$). The lowest score in assessing the overall psychological resilience of employees was 14 points, which is the minimum possible score of the questionnaire (RS-14).

Table 8. Parameters obtained from work engagement and its components

Work engagement and its components	Parameters				
	Mean	Median	Standard deviation	Minimum value	Maximum value
Vigor	11.90	12.00	3.87	2	18
Dedication	12.07	13.00	4.05	0	18
Absorption	13.11	14.00	3.77	1	18
General work engagement	37.09	39.00	10.51	9	54

Note: $N = 187$

From Table 8, we can see that the highest score in assessing employee work engagement was 54 points (maximum score), and the lowest 9 points (minimum score) ($Md = 39.00$; $SD = 10.51$). When describing the components of work engagement, the lowest value in this research was obtained on the dedication subscale ($Md = 13.00$; $SD = 4.05$). Table 9 shows that the vigor subscale had a mean of 11.90 and a median of 12.00 when looking at the parameters of absorption.

The links between employee bullying, psychological resilience, and work engagement. Further analysis of the data sought to examine the links between employee bullying, psychological resilience, and work engagement. These results are shown in Tables 9, 10 and 11.

Table 9. Correlation between bullying and psychological resilience

	Bullying related to work being done	Bullying related to a person	Bullying related to physical intimidation	General bullying in work environment
Perseverance	-0.188**	-0.134	-0.091	-0.184*
Purposeful life	-0.148*	-0.172*	-0.111	-0.175*
Self-reliance	-0.139	-0.104	-0.095	-0.139
Equanimity	-0.218*	-0.163*	-0.172*	-0.211**
Existential loneliness (authenticity)	-0.129	-0.053	-0.043	-0.114

General psychological resilience	-0.169*	-0.142	-0.090	-0.176*
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Note: $N = 187$.

* $p < 0.05$; ** $p < 0.01$.

Table 9 indicates verified links between employee bullying in the work environment and psychological resilience. In general, employee bullying at work has statistically significant negative correlations with employee psychological resilience ($r = -0.176$, $p < 0.05$). However, the analysis of the individual components of psychological resilience shows that components such as self-reliance or existential aloneness (authenticity) have no significant links to general bullying experienced by employees in the workplace or its individual forms.

Psychological resilience is statistically significantly negatively correlated with bullying at work related to a person's work activity ($r = -0.169$, $p < 0.05$). Meanwhile, psychological resilience has no statistically significant links to bullying at work related to a person (individually) or their physical intimidation.

Table 10. Correlation between bullying at work and work engagement

	Vigor	Dedication	Absorption	General work engagement
Bullying related to work being done	-0.313**	-0.296**	-0.293**	-0.336**
Bullying related to a person	-0.313**	-0.319**	-0.316**	-0.353**
Bullying related to physical intimidation	-0.249**	-0.232**	-0.229**	-0.256**
General bullying in work environment	-0.332**	-0.331**	-0.327**	-0.369**

Note: $N = 187$.

* $p < 0.05$; ** $p < 0.01$.

Table 10 demonstrates the relationship between employee bullying in the work environment and work engagement. From the correlation matrix, we can see that bullying experienced by employees in the work environment has statistically significant negative correlations with work engagement ($r = -0.369$, $p < 0.01$) and all its components.

Table 11. Correlation between psychological resilience and work engagement

	Vigor	Dedication	Absorption	General work engagement
Perseverance	0.305**	0.395**	0.394**	0.396**

Purposeful life	0.457**	0.503**	0.365**	0.505**
Self-reliance	0.392**	0.409**	0.399**	0.455**
Equanimity	0.255**	0.239**	0.225**	0.271**
Existential aloneness (authenticity)	0.324**	0.318**	0.375**	0.378**
General psychological resilience	0.428**	0.446**	0.389**	0.479**

Note: $N = 187$.

* $p < 0.05$; ** $p < 0.01$.

Table 10 explores the links between employee psychological resilience and work engagement. As expected, employee psychological resilience had a statistically significant positive relation to work engagement ($r = 0.479$, $p < 0.01$). The hypothesis that psychological resilience would be positively related to employee work engagement is confirmed.

Links between bullying at work and work engagement when the relationship is mediated by psychological resilience. In further analysis of the data, a mediation analysis was conducted to reveal whether the links between bullying at work and work engagement is mediated by psychological resilience. The Hayes (2017) PROCESS plugin for the SPSS software package was used to calculate mediation, which is appropriate for data that do not conform to the normal distribution because of the use of the Bootstrap method (Hayes, 2017).

The psychological resilience of employees, based on a review of the scientific literature, was considered as an intermediate variable (mediator) in this analysis. The scheme of the analysis of the intermediate variable is shown in Figure 1.

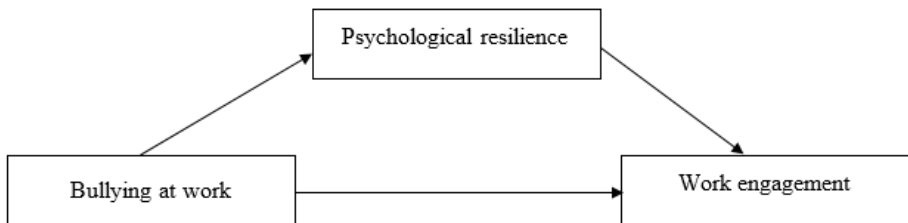


Fig.1. Links between bullying at work and work engagement, with psychological resilience acting as a mediator

The analysis indicated that psychological resilience can be predicted from employee bullying at work ($R^2 = 0.0309$; $F(1, 185) = 5.8929$; $p < 0.05$), and employee bullying at work was

found to have a statistically significant negative effect on psychological resilience ($\beta = -0.2534$, $p < 0.05$, CI $[-0.4594, -0.0475]$). It can also be seen that work engagement can be predicted from employee bullying at work ($R^2 = 0.4762$; $F(2, 184) = 26.9850$; $p < 0.05$), and employee bullying at work predicts work engagement in a statistically significant negative way ($\beta = -0.0214$, $p < 0.05$, CI $[-0.0350, -0.0077]$), while psychological resilience does so positively ($\beta = 0.0289$, $p < 0.05$, CI $[0.0195, 0.0384]$). A small negative direct effect was found between employee bullying at work and work engagement (effect size = -0.0214 ; CI $[-0.0350, -0.0077]$). By predicting work engagement based on employee bullying at work and including psychological resilience as a mediator, we find that the size of the mediation effect is statistically significantly negative (effect size = -0.0073 ; CI $[-0.0190, -0.0005]$).

It can be observed that with the inclusion of a mediator, the size of this effect decreases (from -0.0214 to -0.0073 , $\Delta = -0.0143$). This means that the mediator (psychological resilience) slightly reduces the negative effect of bullying in the work environment on work engagement. Thus, the last hypothesis raised in this work is confirmed.

3. Discussion

This research was conducted to determine the links among employee bullying, psychological resilience, and work engagement. The aim was to determine whether employee bullying, psychological resilience and involvement in work were related. First of all, the hypothesis that more frequent employee bullying will be negatively related to work engagement and psychological resilience was partially confirmed. The correlation analysis performed indicated that employee bullying in the workplace had statistically significant negative correlations with psychological resilience ($r = -0.176$, $p < 0.05$). Employee bullying was statistically significantly negatively correlated with the following individual components of psychological resilience: perseverance ($r = -0.184$, $p < 0.05$), purposeful life ($r = -0.175$, $p < 0.05$), and equanimity ($r = -0.211$, $p < 0.01$). No significant correlations were found among the components of psychological resilience, such as self-reliance and existential aloneness (authenticity), and employee bullying in the work environment. In general, psychological resilience was only found to be statistically significantly negatively correlated with bullying at work, which is related to the work being done by the person ($r = -0.169$, $p < 0.05$). Meanwhile, psychological resilience had no statistically significant links to bullying at work related to a person and their physical safety (intimidation). The results of the research complement the results of Maidaniuc-Chirila's (2015) work, which showed that employee bullying at work was significantly negatively correlated with psychological resilience. Meseguer de Pedro and co-authors (2019) also found that bullying at work was negatively related to employees' psychological resilience. Further correlation analysis of the links between employee bullying at work and work engagement revealed that employee bullying at work had statistically significant negative links to employee work engagement ($r = -0.369$, $p < 0.01$). In addition, employee bullying at work had statistically significant negative correlations with all components of work engagement: vigor ($r = -0.332$, $p < 0.01$), dedication ($r = -0.331$, $p < 0.01$), and absorption ($r = -0.327$, $p < 0.01$). These research results confirm results already available in the scientific literature (Park & Ono, 2017; Rai & Agarwal, 2017; Trepanier et al., 2013; Einarsen et al., 2018) revealing that bullying at work has a negative effect on employee work engagement. According to Koyuncu and co-authors (2016), work engagement is partly determined by the

employee's contact with the work environment and the extent to which that contact is pleasing to the employee. Trepanier and co-authors (2013) analyzed the consequences of bullying in the workplace and found that it not only affected employees' psychological and physical health but at the same time reduced employee work engagement and identification with the organization. From the literature discussed earlier, we know that employee work engagement is important not only for the employee but also for the organization, as engagement is related to productivity and organizational profitability, motivation, and customer satisfaction (Markos & Sridevi, 2010; Schaufeli et al., 2008).

The results of the research also confirmed the hypothesis that psychological resilience is positively related to employee work engagement. Correlation analysis showed that the psychological resilience of employees had a statistically significant positive correlation with employee work engagement ($r = 0.479, p < 0.01$). Psychological resilience had statistically significant positive links to all components of work engagement: vigor ($r = 0.428, p < 0.01$), dedication ($r = 0.446, p < 0.01$), and absorption ($r = 0.389, p < 0.01$). Thus, it can be argued that employees with higher psychological resilience are more likely to engage in their work. These results are consistent with those of previous studies (Rana & Chopra, 2019; Dai et al., 2019) which show that more psychologically resilient employees are more engaged in their work than less psychologically resilient colleagues. The authors agree that psychological resilience is particularly important in today's world of work, as it helps employees to overcome emerging challenges and maintain engagement in their work (Maidaniuc-Chirila, 2015; Black et al., 2017; Hetzel-Riggin et al., 2020). Ugwu and Amazue (2014) share this view, arguing that more psychologically resilient workers can cope more flexibly and smoothly with emerging work difficulties while maintaining their engagement and positive attitude towards work. Kašparkova and co-authors (2018) also agree that psychological resilience increases a person's work engagement, which in turn further empowers employees for better work results.

The results of this research also confirmed the last hypothesis regarding the role of psychological resilience as a mediator between employee bullying in the work environment and work engagement. It was found that employee bullying at work can predict psychological resilience ($R^2 = 0.0309; F(1, 185) = 5.8929; p < 0.05$): employee bullying at work statistically significantly negatively predicted psychological resilience ($\beta = -0.2534, p < 0.05, CI [-0.4594, -0.0475]$). The results also showed that work engagement can be predicted by employee bullying and psychological resilience ($R^2 = 0.4762; F(2, 184) = 26.9850; p < 0.05$), as employee bullying statistically significantly negatively predicted work engagement ($\beta = -0.0214, p < 0.05, CI [-0.0350, -0.0077]$) and psychological resilience positively predicted work engagement ($\beta = 0.0289, p < 0.05, CI [0.0195, 0.0384]$). The results showed a small, negative direct effect between bullying at work and work engagement (effect size = $-0.0214; CI [-0.0350, -0.0077]$). A statistically significant negative mediation effect was obtained by predicting work engagement based on employee bullying at work, with the inclusion of psychological resilience in the equation as a mediator (effect size = $-0.0073; CI [-0.0190, -0.0005]$). The inclusion of the mediator was found to reduce the size of the effect (from -0.0214 to $-0.0073, \Delta = -0.0143$). Thus, it can be said that the mediator (psychological resilience) slightly reduced the negative effect of bullying in the work environment on employee work engagement. The results obtained in this research confirm Meynaar and co-authors' (2021) observation that a person's psychological resilience may

be considered as a partially protective factor. These results complement the results of research by Meseguer de Pedro and co-authors (2019), in which psychological resilience acted as a partial mediator between employee bullying in the work environment and the subjective assessment of one's health. Resilience has been found to mitigate the negative effects of bullying on subjectively perceived health.

Summarizing the research on bullying, psychological resilience and work engagement, a number of limitations can be identified. First, socio-demographic variables such as the positions and functions of employees, the peculiarities of the work organization and the specifics of the organization were not taken into consideration while assessing the analyzed constructs. Second, in the desire to identify deeper links among employee bullying, psychological resilience, and work engagement and to identify significant differences among the groups of concern, the chosen sample of participants may have had an influence.

Conclusions

Employee bullying in the work environment is significantly negatively related to psychological resilience (and its components: perseverance, purposeful life and equanimity) and work engagement (all components). The more often employees reported having experienced experiencing bullying in their work environment, the less likely they were to be engaged in their work and psychologically resilient – in terms of perseverance, purposeful life and equanimity.

Psychological resilience is statistically significantly positively related to employee work engagement and all its components – more psychologically resilient employees were indicated to be more engaged in their work.

The link between employee bullying at work and work engagement is mediated by psychological resilience. The inclusion of the mediator was found to reduce the size of the effect, i.e., psychological resilience slightly reduced the negative effects of bullying in the work environment on employee engagement.

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LINKS AMONG BULLYING, PSYCHOLOGICAL RESILIENCE, AND THE WORK ENGAGEMENT OF EMPLOYEES: CAN PSYCHOLOGICAL RESILIENCE AS A MEDIATOR REDUCE THE NEGATIVE EFFECT OF BULLYING ON WORK ENGAGEMENT?

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Summary

It is observed that bullying is widespread in today's world of work, and although its prevalence work varies from country to country, organizations of all types, natures, and sizes face this problem (Mathisen et al., 2011; Astrauskaitė & Kern, 2011). The phenomenon of bullying at work is identified as a critical stressor, with serious consequences at both the individual and organizational levels (Podsiadly & Gamian-Wilk, 2017). Bullying in the work environment can influence organizational climate, work efficiency, and productivity (Bano & Malik, 2013). It is observed that bullying in the work environment is associated with higher intentions of employees to leave the organization, more frequent morbidity, chronic fatigue, increased anxiety, and various psychosomatic pains (Salin, 2015; Nielsen & Einarsen, 2018; Skuzinska et al., 2019). It also reduces work efficiency, commitment to the organization, work satisfaction, and organizational citizenship (Podsiadly & Gamian-Wilk, 2017; Bano & Malik, 2013; Tuckey et al., 2009; Muazzam et al., 2020). Employees who have experienced bullying at work have been found to feel less useful and generally needed by their organizations (Park & Ono, 2017). In addition, Rai and Agarwal (2017) found that bullying at work is significantly related to the employee's work engagement. Trepanier et al. (2013) agreed, adding that bullying at work not only reduces employees work engagement but also reduces employee identification with the organization. According to Koyuncu, Burke, and Fiksenbaum (2006), work engagement results from employees' contact with their work environment. Research suggests that psychological resilience helps to overcome existing difficulties at work, so the assumption is made that not only will bullying at work be negatively related to work engagement and psychological resilience, but employees' psychological resilience will also act as a mediator between bullying in the work environment and work engagement. The latter will thus serve as a protective factor, reducing the impact of bullying at work on work engagement. Thus, the aim of this study was to determine the links among employee bullying at work, psychological resilience, and work engagement. It is hypothesized that: a) more frequent bullying in the work environment will be negatively related

to employees' psychological resilience and work engagement; b) psychological resilience will be positively related to employee work engagement; and c) the psychological resilience of employees acts as a mediator between the bullying they experience in the workplace and their work engagement.

The research involved 187 participants from Lithuanian organizations of various types and sizes. Three measures were used for the research: the Negative Acts Questionnaire – Revised (NAQ-R), the Resilience Scale (RS-14), and the Utrecht Work Engagement Scale (UWES-9). In addition, sociodemographic questions were included in the research questionnaire. The main results of the research revealed that bullying in the workplace is significantly negatively related to the psychological resilience and work engagement of employees. Correlation analysis indicated that the psychological resilience of employees had significantly positive correlations with the work engagement of employees. Mediation analysis demonstrated that psychological resilience mediates the relationship between employee bullying at work and their work engagement. It was found that the inclusion of the mediator reduced the magnitude of the effect – i.e., psychological resilience slightly reduced the negative effect of bullying in the workplace on the work engagement of employees.

Keywords: *bullying in workplace, psychological resilience, work engagement.*

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II. SOCIALINIS DARBAS SOCIAL WORK

APPLYING MONOCAUSAL, BICAUSAL AND PRIMARY THERAPEUTIC INTERVENTION MODELS IN THE LITHUANIAN CHILDREN'S RIGHTS PROTECTION SYSTEM

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Abstract

In 1992, Lithuania joined the Convention on the Rights of the Child, thus committing to ensuring children's rights by all possible means. Parents take primary responsibility for the implementation of children's rights, but in cases where a parent uses their authority against the interests of their child, the State has the power to intervene in a family. T. Furniss (1991) distinguished three basic models of intervention: Primary Punitive Intervention (PPI) (the monocausal model); Primary Children Protective Intervention (PCI) (the bicausal model); and Primary Therapeutic Intervention (PTI). The goal of this article is to discuss reforms in the children's rights protection system in Lithuania by applying T. Furniss' theoretical model. For a long time, the monocausal model dominated in the country. In 2017, corporal punishment was prohibited by law, which provided an impetus for the further reorganizational development of the children's rights protection system. In 2018, new interventions and methods of social assistance such as case management and mobile teams were established, and these methods became responsible for the protection of children's rights when a family faces challenges. Thus, the principles of the bicausal model were introduced, and further changes in 2020 added traits of the PTI model.

Keywords: *children's rights, children's rights protection system, intervention models, monocausal model, bicausal model, Primary Therapeutic Intervention model.*

Introduction

The protection of children's rights in Lithuania is based, first of all, on the Constitution of the Republic of Lithuania (1992), which declares that: a person shall be inviolable; the dignity of the human being shall be protected by law; it shall be prohibited to torture or injure a human being, to degrade their dignity, or to subject them to cruel treatment, and respective punishments are established; no human being may be subjected to scientific or medical experimentation without their knowledge and free consent; family, motherhood, fatherhood and childhood shall be under the protection and care of the State; the right and duty of parents is to bring up their children to be honest people and faithful citizens and to support them until they come of age; the State shall take care of families that raise and bring up children at home, and shall render them support according to the procedure established by law; and under-age children shall be protected by law.

The Lithuanian framework on the children's rights protection system builds upon the Convention on the Rights on the Child (1989). In 1992, Lithuania joined the Convention on the Rights of the Child, and the ratification procedure ended in 1995. Thus, the State committed to ensuring children's rights by all possible means: legal, administrative, economic, social, educative, etc. The Law on Fundamentals of Protection of the Rights of the Child (Lietuvos Respublikos vaiko teisių apsaugos pagrindų įstatymas, 1996) defines the main rights, freedoms and duties of children. It also guarantees the protection of children's rights and defines the duties and responsibilities of children's rights protection institutions, parents, and other entities. The Law on Fundamentals of Protection of the Rights of the Child was the first important step in Lithuania in the practical protection of children as independent legal subjects (Stripeikienė, 2003). The Constitution of the Republic of Lithuania states that the Seimas (Parliament) and the President define the state policy on children's rights protection, and the Government ensures

the implementation of policy in this regard. The Ministry of Social Security and Labour are responsible for managing the protection of children's rights.

The Law on Fundamentals of Protection of the Rights of the Child (1996) remained unchanged for almost 20 years until 2017, despite: the development of society and the changes in attitudes towards children as humans possessing rights; the need to improve the system of children's rights protection because of serious functional problems, such as lack of efficiency and consistency in responding to cases of violations of children's rights (Vitkauskas, 2009); the lack of communication and cooperation between institutions providing family support (Tamošiūnas & Želvytė, 2010); inappropriate responses to threats to children (Petrylienė, 2011; Stripeikienė, 2017); and the lack of a children-oriented approach at all stages necessary for the protection of children, from information to intervention measures, which left children living with long-term harmful experiences (Tamutienė, 2018).

On the 14 February 2017, during a special session devoted to the protection of children's rights, the Lithuanian Seimas banned all forms of violence against children, including corporal punishment – also known as the “law against beating children”. Definitions of violence against children involving all forms of violence – physical, psychological, sexual, neglect and corporal punishment – were included, and these alterations provided an impetus for the further reorganizational development of the children's rights protection system. Until the 1 July 2018, the State had transferred the functions of children's rights protection to municipalities (municipal child rights protection divisions). Since the 1 July 2018, the function of the protection of the rights of children has been centralized, with the purpose of creating more effective and uniform State practice. This allows the State to ensure children's rights and the protection of their legitimate interests, to respond to violations of children's rights, and to take decisions quickly through centralized coordination and management. The State Children's Rights Protection and Adoption Service under the Ministry of Social Security and Labour (henceforth – the Service) became the central institution for the protection and defence of children's rights that implements the Children's Rights Protection Policy in the territories of the municipalities and participates in the process of state policymaking in the field of children's rights protection itself, or through its territorial structural divisions. The reform of children's rights protection aims: to establish a coherent and coordinated system of children's rights protection institutions, ensuring qualified intervention in family life, the protection and representation of children's rights and legitimate interests, and also sustaining parent's rights; to set the limits of responsibility and special qualification requirements for children's rights protection specialists; to strengthen the management and control functions of the children's rights protection system by centralizing the management and coordination of the system; and to develop and improve the system of comprehensive services for children and their families (Vaiko teisių apsaugos sistemos pertvarkos projekto planas, 2018).

From the 1 July 2018, ongoing reform of the protection of children's rights has shown that in the case of serious violations of children's rights within the family, the protection of children was focused only on the removal of the children from the family, and there was no legal possibility of providing family assistance without separating the children from the family. These complex problems have been solved in a very fragmented way, focusing not on the needs of children but on the existing, well-established, stagnant service sector (Vaiko teisių apsaugos kontrolierius, 2020). Legislative changes have been made at the second stage of reform of

children's rights systems, which began on the 1 January 2020. Since then the children's rights protection system mostly focuses on creating a framework for intervention in the family, and assistance and services for the family.

In 2021, violence against children was mainly perpetrated by persons related by consanguinity (1,837 cases, where 1,609 children were potentially affected – i.e., 63% of all cases of possible violence against children). This tendency was particularly pronounced in cases of neglect (855 cases involving 710 children – i.e., 98% of the total number of victims of all cases of possible neglect) and in cases of physical violence (705 cases involving 676 children, representing 44% of all cases of possible physical violence). Sexual violence was the most common type of violence against children (174 cases involving 165 children – i.e., 73% of all cases of possible sexual violence), and may have been perpetrated by persons not related by consanguinity (Valstybės vaiko teisių apsaugos ir įvaikinimo tarnyba, 2022).

Children, as far as possible, have the right to know and be cared for by their parents, and States Parties to the Convention on the Rights of the Child have to ensure that children shall not be separated from their parents against their will, except when competent authorities subject to judicial review determine, in accordance with applicable law and procedures, that such separation is necessary for the best interests of the child (Convention on the Rights of the Child, 1989). Parents take primary responsibility for the implementation of children's rights, but in the case when parents use their authority against the interests of children, the State has the power to intervene in a family. This is regulated by national legislation which encompasses prevention and intervention measures (Lietuvos Respublikos civilinis kodeksas, 2001). The most important and sensitive area of children's rights protection is determining and maintaining a balance between a child's right to be protected and their right to be raised by their parents, i.e., to stay in their family. The possibility to help adjust family relationships and to save a family depends on the family intervention model chosen by the State.

T. Furniss (1991) distinguishes three basic models of professional interventions: Primary Punitive Intervention (PPI) (the monocausal model); Primary Child Protective Intervention (PCI) (the bicausal model); and Primary Therapeutic Intervention (PTI). The monocausal (PPI) model helps to resolve the situation by punishing a perpetrator parent. PPI covers the conflict between a perpetrator and a child and addresses the child's feeling of disappointment, making it impossible to deal with positive aspects, such as attachment between a child and a perpetrator, etc. The bicausal (PCI) model is directed against both parents, and includes all forms of intervention to protect a child's wellbeing when the child needs protection, but often leads to the secondary victimization of the child, especially with the removal of the child from the family – in such a situation, children become double victimized. PCI covers marital conflict between parents. The PTI model includes all interventions which aim to treat individual psychological trauma and to change a family relationship. This is not directed in a statutory or legal way against any specific family member, but towards changing family relations. Deciding on PTI does not mean excluding the assistance of social services, police, or courts from the therapeutic process, and allows the temporary separation of family members if necessary.

When the violation of children's rights in the family has been identified, intervention in family life is a very important moment of the family assistance process. Intervention actions determine the further availability of help; therefore, this article focuses on an analysis of family

intervention.

The research object of this article is the range of reforms of the children's rights protection system in Lithuania in the light of intervention models. The goal of the article is to present these reforms in the context of T. Furniss' (1991) theoretical model. Thus, the following research question was formulated: What changes occurred in the Lithuanian child rights protection system in terms of family intervention according to T. Furniss' (1991) three basic models?

1. Methodology

In order to meet the goal of this paper and answer the research question, a narrative literature review applying qualitative content analysis principles was performed. This was based on K. A. Neuendorf's (2017) assumption that parts of the text reflect the contexts behind the text – i.e., the text of legislative documents mirrors the conceptual framework of T. Furniss' (1991) theoretical model. Firstly, the meaningful units (key phrases) of the model were defined (for PPI: statutory, punishing a perpetrator, assistance to the victim, etc.; for PCI: legal, intervention to protect a child, secondary victimization, etc.; for PTI: not statutory, intervention to treat, changes of family relations, etc.), and then their manifestations in legislative documents were searched for.

Eligibility criteria of legislative documents. Several criteria for the inclusion and exclusion of documents were formulated. All documents meeting the selection criteria were included in the analysis list and analysed, while those not meeting the criteria were rejected and not included in the review. Documents were selected for analysis based on the following selection criteria: 1) related to the child rights protection system; 2) related to family intervention; 3) related to Lithuania; and 4) issued after the reconstitution of Lithuanian independence. In order to ensure the validity of selected documents, the following principles were adhered to (Creswell & Creswell, 2018; McCulloch, 2004): authenticity of sources, which ensures that the source version of the document is the real one, e.g., documents were and/or are in operation and included in official reciprocities; reliability of sources, which defines the importance and/or weight of the document in the context of similar sources, i.e., all of the documents were/are registered and had/have assigned numbers; time period, i.e., only these documents which were issued after the reconstitution of independence; and maximum number of sources, i.e., documents that meet the selection criteria were all included in the analysis list and analysed.

Search sources and strategies. A targeted search for documents according to the above criteria was conducted in the e-tar.lt database and the electronic repositories of public institutions from October 2021 to April 2022. The above-mentioned meaningful units (key phrases) from T. Furniss' (1991) theoretical model were used, and 9 documents (laws, procedures, reports, plans) in total were included for the review.

Data analysis and interpretation. The data analysis included a breakdown of the documents' text according to the above-mentioned research question: What changes occurred in the Lithuanian child rights protection system in terms of family intervention according to T. Furniss' (1991) three basic models? The data obtained from the analysis were interpreted according to T. Furniss' (1991) three basic models of professional family interventions. The internal validity of the qualitative data was ensured by the correspondence of the research outcomes to the actual situation under investigation (Hayashi, Abib & Hoppen, 2019). This

involved asking continuous questions during the research process as to whether an authentic picture of the field under analysis – i.e., changes in the child rights protection system and applied measures – was being depicted, and whether interpretive assumptions were meaningful in reality. The external validity of the qualitative data (Bitinas, Rupšienė & Žydžiūnaitė, 2008) was ensured using the researchers' triangulation method, where each researcher performed their own analysis and then, via the process of joint discussion, interpretations, a cumulative summary and conclusions were formulated.

Ethical principles of document analysis. Ethical considerations in selecting the documents were minimal, as widely accessible public records that are available for everyone to examine (Morgan, 2022) were included for the analysis. During the analysis stages, the principle of fairness was followed by presenting and analysing authentic and reliable documents in an undistorted manner (Creswell & Creswell, 2018).

The research results are presented in two sections: firstly, the description and analysis of selected documents is presented; secondly, their interpretation in the light of T. Furniss' (1991) models is discussed.

2. The system of the protection of children's rights in Lithuania

Parents' rights and duties. Parents have priority over other persons for the implementation of children's rights. The father and the mother shall have equal rights and duties with respect to their children. Parents shall have equal rights and duties to their children irrespective of whether the child was born to a married or unmarried couple, after divorce or judicial nullity of the marriage, or after separation. Parents shall be jointly and separately responsible for the care and education of their children. Parental authority may not be used contrary to the interests of children. Failure to exercise parental authority shall be subject to legal responsibility under the law. Where parents (the father or the mother) fail in their duties to bring up their children, abuse their parental authority, treat their children cruelly, produce a harmful effect on their children by their immoral behaviour, or do not care for their children, the court may make a judgment of a temporary or unlimited restriction of parental power (that of the father or the mother) (Lietuvos Respublikos civilinis kodeksas, 2001).

The involvement of children in the implementation of their rights. In considering any question related to a child, the child, if capable of formulating their own views, must be heard directly or, where that is impossible, through a representative. Any decisions on such a question must be taken with regard to the child's wishes unless they are contrary to the child's interests. In deciding on the appointment of a child's guardian/curator or a child's adoption, the child's wishes shall be given consideration. If a child considers that their parents abuse their rights, the child shall have a right to apply to a State institution for the protection of the child's rights or, on attaining the age of 14, to bring the matter before the court (Lietuvos Respublikos civilinis kodeksas, 2001).

The Lithuanian children's rights protection system valid from the 1 July 2018 and (updated new version) the 1 January 2020. The Law of the Republic of Lithuania on Protection from Domestic Violence regulates protection for everyone – men and women, children, and the elderly (Lietuvos Respublikos apsaugos nuo smurto artimoje aplinkoje įstatymas, 2011). The Law provides both general and specific prevention measures to help protect a person who

has experienced violence or recurrent violence. Article 5 of the Law determines that if domestic violence is established, the court shall, within 48 hours, impose the following protection measures: an obligation for the perpetrator to move temporarily from their place of residence if they live with the victim; and/or an obligation for the perpetrator not to approach the victim, not to communicate, and not to seek contact with them. Although national law provides the possibility of obliging the perpetrator to leave the common home, in some cases this is not sufficient to prevent repeated violence – victims of domestic violence often do not receive help if the perpetrator violates the protection measures (Vaigė, 2016).

The reason for the State's intervention in a family. This involves responding to a notice of possible violation of the rights of the child. Under receipt of the notice of the alleged violation of the rights of the child, the Service or its authorized territorial unit assesses the child's situation in the family. There can be three possible processes.

The conclusion of the assessment of the child's situation in the family. **First**, if the Service or its authorized territorial unit does not identify violations of the children's rights, the report is closed.

Second, the Service or its authorized territorial unit ascertains the *second danger level* (2018 – 2019) or the *need for child protection* (since 2020). This occurs if the Service identifies a real danger to the child's physical or mental safety, health or life, or a risk that may cause significant harm to the child's health which is related to the child's functioning, social environment risk factors, and risk factors related to the child's parents or other legal representatives.

In the 2018 version of the Law, the child always was taken from the family in this case. In the 2020 version of the Law, the child can be taken from the family or temporary supervision can be established. Temporary child supervision where the child is not taken from the family is a new possibility. The implementation of temporary child supervision is conducted: by relatives or persons closely related to the child and parents (this continues for 30 days and can be extended by 30 days); or by both parents or one of them in a crisis centre (this continues for a period of up to 12 months).

A case manager and a mobile team begin to work with the family and (or) the child. Case management involves the organization and provision of comprehensive assistance to the child and their family, and is coordinated by the case manager. This helps them to overcome difficulties, the successful resolution of which would create preconditions for avoiding violations of the child's rights and help to ensure the child's rights independently. The case manager is subordinate to the municipality (Atvejo vadybos tvarkos aprašas, 2019).

The mobile team is a team of specialists that provides intense assistance to a family and/or a child in a crisis situation, and cooperates with the case manager in cases where the need for child protection is identified. The purpose of the mobile team is to provide operational support to the family in crisis. The mobile team is subordinate to the State. The main causes of violations of children's rights, child abuse, and violence against children in the family are parental addictions and psychological and social factors. Therefore the mobile team consists of three specialists: a social worker, a psychologist, and an addiction specialist. They provide assistance and services for the parents and (or) the child over 30 days, and at the end of this term provide recommendations for the case manager concerning further work with the family. The difference between the activity of the case manager and that of the mobile team is that the case manager works with family

problems in the long-term, whilst the mobile team works with crisis issues. Usually, the mobile team helps the family at their place of residence (Mobiliųjų komandų sudarymo, specialistų atrankos ir jų darbo tvarkos aprašas, 2018).

Third, the Service or its authorized territorial unit ascertains the *first danger level* (2018 – 2019) or the *need to help the child and (or) their family* (since 2020). Here, they determine the risk factors of the child's functional and social environment, as well as the risks related to the child's parents or other legal representatives and their relations with the child. They also ascertain whether the child's parents or other legal representatives do not guarantee the rights and legitimate interests of the child. The child stays with the family, and the case manager begins to work with the family and organize services.

3. Discussion

As was mentioned, T. Furniss (1991) distinguishes three basic models of professional interventions: Primary Punitive Intervention (PPI) (the monocausal model); Primary Child Protective Intervention (PCI) (the bicausal model); and Primary Therapeutic Intervention (PTI). It could be said that elements of all three models can be found in Lithuania.

PPI (the monocausal model) is very clearly outlined in the Law of the Republic of Lithuania on Protection from Domestic Violence. When a case of domestic violence is identified, there are two aims: to punish the perpetrator and to provide assistance to the victim. However, this type of intervention does not value the importance of the interaction between the abuser and the victim, which is particularly relevant in cases where there are close family ties between them, especially when the victim is the child of the abuser. According to T. Furniss (1991), PPI is oriented towards applying sanctions rather than paying attention to the importance of interaction between the people involved in conflict resolution. This makes it impossible for the child, the family and the professional network to deal with the conflict, and for the best interests of the child – to live within their family as the best environment – to be maintained. The family relations between the perpetrator and the victim are important for maintaining a further relationship, i.e., for family reunification. The Law does not regulate the perspectives of the implementation of parental and child rights – including adjusting family relationships, family functioning, and ensuring the child's right to grow up within their parental family.

PCI (the bicausal model) occurs when the *second danger level* (2018–2019) or the *need for children protection* (since 2020) is identified, and when the child is taken from the family for temporary guardianship (curatorship). In such a case, help and services are provided to the parents. Temporary child guardianship (curatorship) cannot last more than twelve months, and entails the care and upbringing of a child that is temporarily deprived of parental care and the representation and protection of the child's legitimate interests in the family, social family, or institution. The purpose of temporary child guardianship (curatorship) is to return the child to their natural family. Temporary child guardianship (curatorship) can end when the child: is returned to their family; attains majority or emancipation; has permanent guardianship/curatorship established; is adopted; or enters into a marriage. The separation of the child from their parents is based on the protection of the child's rights and is an act that proceeds in the best interests of the child, but there are negative aspects of this action. First, separating a child from their parents always has a traumatic effect. The development of children is very intense,

so long-term separation from parents harms the child's psychosocial development. Second, working with parents separately will never be as effective as working with the whole family, and thus affecting the relationships of all family members. When the child is taken away from the family, parents are mutually opposed to their child. According to T. Furniss (1991), social services "employ their power to act as 'better parents' for the children in competition with actual parents as 'worse parents', and PCI is based on the implicit or explicit attribution of failure to both parents in their parenting role [...]" (pp. 61–62). Therefore, the separation of a child from their parents can be treated as a sanction or a punishment for parents, without trying to help them. A sanction used by the State against a person usually provokes a reaction of hostility, which makes it difficult for them to accept assistance. Therefore, these services have the additional task of helping parents to acknowledge problems and accept help. However, we cannot deny that the separation of a child might be also recognised as a punishment for the child. In this way, although parental authority has been used contrary to the child's interests, the child experiences secondary victimization. Therefore, temporary guardians are concerned with helping the child to cope with the consequences of victimization, but also explaining to the child why they have been separated from their parents. The question then becomes how to do this.

Since the 1 January 2020, a new intervention measure – temporary child supervision – has appeared in the Lithuanian children's rights protection system. This has made it possible to assist a child and their family without removing the child from their close environment, hoping that the family will solve problems and restore proper functioning corresponding to conditions that ensure the child's welfare. Such an intervention with the family relates to the PTI model described by T. Furniss (1991), which focuses on the relationships of family members, the aspects of and reasons for these relationships, and finding the main sources of a family crisis. The application of this type of intervention has several positive aspects. First, the State has a very minimal impact on family life through family intervention by introducing an additional participant which implements temporary child supervision: relatives or people in close relation to the child and the parents, or an institution which the child attends with one of their parents. Secondly, there are no direct and drastic sanctions on either the parents or the child – the child is not excluded from the family, which increases the likelihood that the assistance provided will be effective. Third, the family receives services from three professionals (a mobile team) at home, where there is an opportunity to see the interaction between both parents and the child and to track changes in their relationships, which also brings closer the goal of maintaining the family and helping to solve problems.

Conclusions

In Lithuania, the development of the system of the protection of children's rights began in 2017, and its implementation began in 2018. The second change to this system was made on the 1 January 2020. If the need for child protection is identified, there are two possible family interventions: taking the child out of the family (the Primary Child Protective Intervention model); or implementing temporary child supervision, where the child stays within the family (the Primary Therapeutic Intervention model). The latter method of intervention constitutes the best opportunity to help the family. Family life is a protected value, and is a priority for a child as the best environment in which to grow – regardless of possible short-term or long-term problems.

If a problem relating to the protection of a child's rights can be addressed through family support, priority must be given to preserving the child's right to family ties without removing them from their family.

The document analysis method was applied in this study, focusing on reforms to the child protection system and how they are presented in the legal documents, e.g., texts. Future research could be extended to the analysis of how these reforms are implemented in reality, and how T. Furniss' models of intervention are reflected in everyday child protection practices.

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APPLYING MONOCAUSAL, BICAUSAL AND PRIMARY THERAPEUTIC INTERVENTION MODELS IN THE LITHUANIAN CHILDREN'S RIGHTS PROTECTION SYSTEM

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Summary

The protection of children's rights is primarily based on the Constitution of the Republic of Lithuania. The Lithuanian system for the protection of the rights of the child is based on the Convention on the Rights of the Child. Lithuania acceded to the Convention on the Rights of the Child in 1992 and the ratification procedure was completed in 1995. In 1996, the Law on Fundamentals of Protection of the Rights of the Child was adopted, which was the first important step in Lithuania's practical protection of the child as an independent legal subject. The Seimas of the Republic of Lithuania, in a special session on the protection of children's rights, banned all forms of violence against children, including corporal punishment. Until 1 July 2018, the State had transferred the protection of children's rights to municipalities.

The child rights protection system focuses on building a system of family intervention, support and services for families. The most important and sensitive area of child rights protection is identifying and maintaining a balance between the child's right to protection and their right to be raised by their parents.

T. Furniss (1991) identifies three main models of professional intervention: the monocausal model (PPI) helps to resolve the situation by punishing the offending parent; the bicausal or two-way custody model (PCI) is for both parents, and includes all forms of intervention to safeguard the child's well-being when the child is in need of protection; the Primary Therapeutic Intervention (PTI) model includes all interventions aimed at treating individual psychological trauma and changing family relationships.

The goal of the article is to describe reforms of the child rights protection system in Lithuania by applying T. Furniss' theoretical model.

Parents have priority over other persons in the exercise of their children's rights. Parental authority must not be used contrary to the best interests of the child. Failure to exercise parental authority is punishable by law. The Law on Protection from Domestic Violence of the Republic of Lithuania regulates the protection of everyone. The Law provides for both general and specific preventive measures to protect the victim from repeated violence.

Primary punitive intervention (PPI) (the monocausal model) is very clearly defined in the Law on Protection from Domestic Violence of the Republic of Lithuania when a case of domestic violence is established. This type of intervention underestimates the importance of the interaction between perpetrator and victim. Primary Child Protective Intervention (PCI) (the bicausal model)

occurs when a secondary level of risk or the need for child protection is identified, and the child may be removed from the family. From 2020, a new intervention method has been introduced in the Lithuanian child protection system: temporary guardianship of the child, which is designed to help the child and the family without removing the child from their immediate environment, in the hope that the family will resolve their problems and restore the child's well-being. This intervention for the family is based on the PTI model.

The latter type of intervention offers the greatest opportunity to help the family. Family life is a protected value and a priority for the child, as it is the best environment for development, regardless of possible short- and long-term problems.

Keywords: *children's rights, children's rights protection system, intervention models, monocausal model, bicausal model, Primary Therapeutic Intervention model.*

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II. EDUKOLOGIJA EDUCATION SCIENCE

CHALLENGES IN THE LITERATURE SEARCH DURING THE PROCESS OF CONDUCTING A SYSTEMATIC LITERATURE REVIEW FOR THE CONCEPTUALISATION OF CRITICAL THINKING

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Abstract

This article discusses challenges in the literature search during the process of conducting a systematic literature review for the conceptualisation of critical thinking. The literature search process is described in two interconnected stages: the selection of journals and the sampling of articles. Analysis is followed by discussion, which also includes the subjective reasoning and reflections of the project team. The process of searching the relevant literature for a systematic literature review was presented in order to discuss the initial stage before literature analysis that very often remains a “grey area” and is still underrepresented in the literature. The process of selecting journals and sampling articles was impacted by objective limitations such as language and availability of access of material, as well as by subjective limitations which required flexibility in adjusting the envisaged research plan. These factors led to the unique path by which the research team processed the search and coped with methodological challenges. Some lessons, like the necessity of additional time, were already known and experienced during earlier research; however, they showed themselves in other aspects. Some lessons, such as not limiting the literature review to articles from Q1 journals, were new and unexpected, and led to the decision to discuss these challenges, thus enriching a very limited analysis on methodological issues of the literature search process for the term conceptualisation. This article focuses on how material on critical thinking for the literature review was sought, rather than the content that was found. This experience is intended to broaden the understanding of the initial phase in a systematic literature review process and to help increase awareness of what preparation for a literature review actually means.

Keywords: *literature search, systematic literature review, conceptualisation, critical thinking, higher education*

Introduction

Social research methodology emphasises that literature review is a crucial step in the research process. It allows researchers to accumulate past experience (Gomersall, 2007) and summarise earlier knowledge in the field; introduces methodological and design issues; provides data sources and opportunities to compare one’s own research with previous work (Leedy, 1997); provides a rationale for further study (Badke, 2017); and leads to new insights when the literature is reviewed and each piece of relevant information is seen in the context of other information (Aveyard, 2014). At the same time, there is increasing recognition that literature review is a complicated, sometimes confusing, and laborious process (Chen, Wang & Lee, 2016), while methods of undertaking review are rigorous and time-consuming (Aveyard, 2014).

As a literature review is essential in any research or project work, this one was planned as an integral part of our four-year research “Critical Thinking in Higher Education: A Study and Labour Market Perspective”. Initially, a systematic literature review approach (Cronin, Frances & Coughlan, 2008) was chosen for the conceptualisation of critical thinking. Critical thinking is a vibrant topic and one of the most discussed competences. Furthermore, it is accorded an important role in contemporary society, in the globalising labour market and in the creation of the welfare of the individual and the community. However, there is no agreement as to what critical thinking is or how it expresses itself in practical situations and spheres of social life (Bailin, 2002;

Halpern, 1998; Lewis & Smith, 1993; Facione, 1990; Willingham, 2007). As Kubok (2018) states, what critical thinking is seems to be self-evident, but when it comes to defining what critical thinking actually is, challenges arise. There is a lack of articles describing methodological aspects of the conceptualisation of the notion of critical thinking, which would be based on a systematic literature review. Among the few existing articles, only two could be mentioned as presenting the conceptualisation of critical thinking: Billing (2007), who described the methodology of a survey of over 700 articles; and Bekele (2009), who revised articles about critical thinking and problem-solving published during the 1995–2006 period. Therefore, the research team aimed to perform a systematic literature review for the conceptualisation of critical thinking, especially in the field of education. Despite the abundance of literature about critical thinking in education, most is restricted to: testing existing theories; the analysis of cognitive skills, characteristics or attitudes; and investigations of specific study programme curricula or students' cognitive skills (Lai, 2011). A pilot investigation (Penkauskienė, 2017) showed that critical thinking in higher education is investigated inconsistently and fragmentarily, is limited mostly to general theoretical reasoning (Moore, 2013; Shephard et al., 2015; Cake et al., 2016; Heijltjes et al., 2015), and lacks detailed methodological description. Meanwhile, empirical articles are fragmented (Liu et al., 2016) and do not provide a full picture (Phan, 2008; Slabon et al., 2014). Researchers (Ku, 2009; Norris & Ennis, 1989; Silva, 2008) recognise the limitations of such studies and call for the combination of various methods, the search for new instruments, and the investigation of critical thinking in specific contexts.

The importance of the literature review, the obscurity of the definition of critical thinking, and the lack of analysis regarding the methodological challenges of a literature review connected with a specific topic – in this case, the conceptualisation of critical thinking – all provide evidence for the relevance of this article. They also raise research questions regarding challenges in the literature search during a systematic literature review and subjective and objective limitations to this process. The findings of the content of the literature review are presented in another article; the focus of this article is on the literature search process and the main challenges, both projected and unanticipated, which were faced by the research team.

1. Research methodology

1.2. Method

A systematic literature review was undertaken as a planned stage of the project. For the purpose of this paper, the research team describes the literature search process in two interconnected steps: the selection of journals and the sampling of articles. Analysis is followed by discussion, which also includes subjective reasoning and the reflections of the project team.

1.2. Background of the Literature Search

For the conceptualisation of critical thinking, a systematic literature review approach was chosen from the fourteen literature review types suggested by Grant and Booth (2009). Systematic review differs from a traditional or narrative review as it uses a more rigorous and well-defined approach to reviewing the literature in a specific subject area. Unlike a traditional review, the

purpose of a systematic review is to provide a list of all published articles relating to a particular subject area that is as complete as possible. While a traditional review attempts to summarise the results of a number of studies, a systematic review uses explicit and rigorous criteria to identify, critically evaluate and synthesise literature on a particular topic (Cronin, 2008). Parahoo (2006) suggests that a systematic literature review details the time frame within which the literature was selected, as well as the methods used to evaluate and synthesise the findings of the studies in question. In order for the reader to assess the reliability and validity of the review, the reviewer needs to present the precise criteria used to: formulate the research question; set inclusion or exclusion criteria; select and access the literature; assess the quality of the literature included in the review; and analyse, synthesise and disseminate the findings. This process is described in the article.

The strategy of the literature search was focused on the Clarivate Analytics database. The sampling design was created from top to bottom, i.e., the search for conceptualisations of critical thinking started with journals which fall into the first quartile by reference indexes. Two out of Barret's (in Edyburn, 2001) seven distinguished strategies for literature search were applied. The first of these – a *general search* – was done not due to a small amount of knowledge about the topic on the part of the authors, as the Barret suggests is the case, but due to the desire to capture every source containing the concept of critical thinking. However, this intention was hindered by two factors: first, the impossibility of attaining every selected document due to restricted access to some articles; and second, the prevalence of extraneous, incoherent and irrelevant material. Therefore, a *specific search* using Boolean logic (i.e., “AND”) was applied as a means of linking key concepts (“critical thinking” AND “higher education”) and, accordingly, reducing irrelevant items.

In the initial phase, there were no defined expectations regarding how much material would be found. The research team went into the field without prescribed attitudes towards potential results and was ready to analyse any amount of material. However, it was not expected that results would be so scarce and that the material found would be insufficient to achieve the goal of conceptualising critical thinking. Therefore, the research team applied an adaptive literature search model. This entire process can be divided into two major stages – the selection of journals and the sampling of articles – that are presented further.

1.3. The Selection of Journals

As the interest was in the concept of critical thinking in higher education, the first task was to identify journals of interest in the field of higher education. It was assumed that top-quality papers on critical thinking in the field of education are in journals included in the Clarivate Analytics Web of Science database. The research team referred to this database as a tool useful for the identification of the most-cited articles published in journals indexed in the Web of Science Core Collection database.

In the first step, higher education journals included in the selected database were searched for. The keywords *education* and *educational* were applied. The list of journals for analysis was generated using the Clarivate Analytics Journal Citation Reports database, evaluating the journal

impact factor for the year 2016.¹ Journals under specified keywords were divided into four themes:

- (1) Education and educational research;
- (2) Education, scientific disciplines;
- (3) Education, special;
- (4) Psychology, educational.

A separate list of journals was generated for each theme, and journal impact factor was employed as a general criterion of the quality of a journal; in particular, quartiles by journal impact factor.

In the second step, journals were grouped by quartiles. A quartile is a statistical indicator that shows the position of the journal in the subject category based on the distribution of the citation index between the maximum and minimum values. Quartiles are indicated by the letter Q, and divide the sequence of attributes into four equal parts. The number from 1 to 4 next to the letter indicates the position of the quartile. Thereby, Q1 is the quartile containing the first 25 per cent of all journals ranging from the highest to the lowest journal impact factor. Accordingly, Q2 and Q3 are quartiles in the middle by decreasing impact factor, and Q4 includes the last 25 per cent of all journals – the least-cited, compared to the rest (Trumpienė & Šeigždienė, 2012).

In the third step, the verification of each journal was carried out. This action was performed in accordance with the recommendations of the university's assistant librarian in order to avoid predatory journals. Since there were journals with identical titles, each journal was crosschecked on the EBSCOhost platform by typing the title of the journal and verifying its ISSN back and forth. After the identification of a particular journal as matching the main criteria in terms of impact factor, authenticity, and accession possibilities, the journal was included in the list of journals in which articles about critical thinking were searched for. The final distribution of the journals is presented in Table 1.

Table 1. Number of journals in quartiles by theme

Themes	Total	Q1	Q2	Q3	Q4
Education & educational research	235	58	59	56	58
Education, scientific disciplines	41	10	10	10	11
Education, special	38	9	10	9	10
Psychology, educational	58	14	15	2	1
Total	372	91	94	77	80

A similar number of journals belonged to Q1 and Q2 (91 and 94 respectively), while Q3 included 77 journals and Q4 80. In total, 372 journals were examined further. The largest share in all quartiles was occupied by the theme Education & educational research (235 journals).

¹ Journal impact factors are estimated after a certain period of time; therefore, the impact factors obtained in March 2018 cover the years up to 2016, and were actual only to June 2018.

2. The Results of the Sampling of Articles

A two-step sampling process of articles containing coherent information on critical thinking was conducted.

In the first step, the articles were searched for using the online research platform EBSCOhost (<https://www.ebsco.com/>). The date of publication covered a 20-year period (1997–2017).² Sampling of the articles within selected journals was carried out using a search setting consisting of the following selection criteria:

- ISSN of the particular journal;
- Keyword critical thinking in the field of subject terms;
- Full text;
- Period of 1997–2017;
- English language.

This setting produced 615 articles published in Q1 journals, 397 articles in Q2, 911 in Q3, and 1,298 in Q4. In total, there were 3,221 articles to be analysed. For the team of eight researchers, this meant 403 articles to review and analyse per researcher. However, a preliminary review of the articles showed that many articles were far from the subject matter under analysis – specifically, critical thinking in higher education. The team had to come up with a way to optimise the process of the selection of articles.

Therefore, in the second step, more detailed inclusion criteria were applied. It was decided to refine the search parameters. The search setting was added to with another keyword – *higher education* in the subject terms field. This helped to narrow the search field and allowed us to focus on the concept of critical thinking in the context of higher education. Keeping other parameters, the same, but with the keywords *critical thinking* AND *higher education*, the total number of articles was 55 in Q1, 264 in Q2, 245 in Q3, and 240 in Q4 (see Table 2).

Table 2. Number of articles in quartiles by primary and refined search parameters

Themes	Q1		Q2		Q3		Q4	
	CT*	CT and HE**	CT	CT and HE	CT	CT and HE	CT	CT and HE
Education & educational research	218	31	390	264	708	227	1,226	229
Education, scientific disciplines	347	18	0	0	122	10	63	9
Education, special	1	0	3	0	47	4	8	1
Psychology, educational	49	6	4	0	34	4	1	1
Total	615	55	397	264	911	245	1,298	240

*CT – critical thinking

**CT and HE – critical thinking AND higher education

² Due to data on journal impact factors covering the period until the end of 2016 at the moment of this research, it is possible that not all publications from 2017 were presented in their correct quartiles in cases where a journal was moved to another quartile after the beginning of a new period of impact factor calculation.

In the final stage, the number of articles which were selected for analysis was reduced due to limited access to article content. Articles with an access fee were classified as articles with limited access, and were therefore removed from the planned list of articles to be analysed. After the last adjustment, 303 articles remained for in-depth content analysis. These articles constituted the final array of material related to the concept of critical thinking in higher education. The research team worked further by conducting a systematic literature review of selected papers, the results of which are beyond the scope of this article.

3. Discussion and Conclusions

Reflection on the literature search as a step in the process of a systematic literature review for the conceptualisation of critical thinking allows the methodological challenges faced by the research team to be discussed.

The first challenge was at the journal selection stage. The journal accession policy diminished the number of selected journals as some of them were closed or inaccessible from the university account. These circumstances were beyond the power of research team, and thereby may be named as limitations arising from structural conditions related to the university's subscription policy.

The next challenges were connected with the sampling of the articles. The research team did not have *a priori* assumptions of the potential analytical work to be done in order to implement one of the tasks of the project – to conceptualise critical thinking. However, there were unwritten expectations that Q1 journals would produce the desired result, and the team could thus proceed along the project plan. However, the results were disappointing. Q1 journals did not provide enough material based on what the research team would need to be able to carry out a systematic analysis of the concept of critical thinking. Therefore, in a regular review meeting the decision was made to analyse articles in journals of other quartiles.

Since this work was carried out not by an individual but by a research group, it required within the group the skills of collaborative problem-solving, distribution of responsibilities, solidarity, emerging leadership and process monitoring.

The process of a systematic literature review on critical thinking was much longer and more challenging than the research team planned. Flexibility was needed in redesigning the literature search; however, this decision led to a new challenge – to produce project results on time. Every researcher experienced the fact that a systematic literature review requires considerable effort, time and energy, starting from an idea and finishing with a research report or publication. Between these two points, there are many hours of collaboration, problem solving, creativity, critical thinking, discussing, reading, monitoring, writing, deleting and re-writing. Most researchers in their papers analyse and present the main findings, insights and other results of their research projects, and do not describe the methodology in detail. Therefore, readers only see the final product – the tip of the iceberg of the whole background work of the research team.

The research team found the lack of methodological literature (not textbooks) for the conceptualisation of critical thinking challenging. The literature search process presented in this article revealed that published theoretical articles emphasise analytical conceptualisation and reasoning, and pay less attention to how any particular conceptualisation was performed. Among the 303 revised articles from the 1997–2017 period, few describe how the researcher

conceptualised one or another definition, as most authors provide a literature overview and leave the reader to decide on the validity of analysis. As was said earlier, very rarely is the methodology described in depth. Among the few articles that do so, only two – Billing (2007) and Bekele (2009) – could be mentioned as describing the methodology of reviewing articles in a more detailed way. This article benefits methodology and knowledge-building in the field of critical thinking in the 1997–2017 period.

Despite knowing very well what a systematic literature review is, how it is done, what challenges could arise and the ways of overcoming them, the research team went through a hazardous process in conceptualising critical thinking. Some lessons, such as the necessity of additional time, had already been learnt and experienced during earlier research; however, they showed themselves in other aspects. Some lessons, such as not limiting a literature review to articles from Q1 journals, were new and unexpected, and led to the decision to discuss these challenges. This novelty thus enriches a very limited analysis on the methodological issues of the process of searching for literature on the term conceptualisation.

This article focuses on how material for a literature review on critical thinking was searched for, rather than what content was found. The process of searching for the relevant literature for a systematic literature review was presented in order to discuss the initial stage before literature analysis, which very often remains a “grey area” and is still underrepresented in the literature. The process of selecting journals and sampling articles was impacted by objective (or structural) limitations such as language and availability of access to material due to its subscription and fee policy. At the same time, the research team faced subjective limitations such as unsatisfied expectations in terms of the requested amount of literature, which required flexibility in adjusting the envisaged research plan and had an impact on the entire time schedule. These factors led to the unique way in which the research team processed this search and coped with methodological challenges. It is crucial to realize that high-ranking publications do not necessarily include a sufficient amount of theoretical material on the subject that is intended for analysis. We tried to present the path that the research team took to overcome the barriers that arose in the process of gathering and analysing appropriate scientific literature. This experience can broaden the understanding of the initial phase in the systematic literature review process, and can help to increase awareness of what preparation for a literature review actually means.

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CHALLENGES IN THE LITERATURE SEARCH DURING THE PROCESS OF CONDUCTING A SYSTEMATIC LITERATURE REVIEW FOR THE CONCEPTUALISATION OF CRITICAL THINKING

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Summary

Social research methodology emphasises that the literature review is a crucial step in the research process. It allows researchers to accumulate past experience and summarise earlier knowledge in the field; introduces methodological and design issues; provides data sources and opportunities to compare one's own research with previous work; provides a rationale for further study; and leads to new insights when the literature is reviewed and each piece of relevant information is seen in the context of other information. At the same time, there is increasing recognition that the literature review process is complicated, sometimes confusing, and laborious, while methods of undertaking review are rigorous and time-consuming. The systematic literature review approach according Cronin, Frances and Coughlan (2008) was chosen for the conceptualisation of critical thinking. Despite the abundance of literature about critical thinking in education, most is restricted to testing existing theories, the analysis of cognitive skills, characteristics or attitudes, and investigations of specific study programme curricula or students' cognitive skills. Critical thinking in higher education has been investigated inconsistently and fragmentally, has been limited mostly to general theoretical reasoning, and has lacked detailed methodological description. Meanwhile, empirical articles are fragmented and do not provide a full picture. Researchers recognise the limitations of such studies and call for a combination of various methods, a search for new instruments, and the investigation of critical thinking in specific contexts. The importance of the literature review, the obscurity of the definition of critical thinking, and the lack of analysis of the methodological challenges in conducting a literature review connected with a specific topic – in this case the conceptualisation of critical thinking – all provide evidence for the relevance of this article. They also raise research questions regarding challenges in the literature search during a systematic literature review, and the subjective and objective limitations in this process. The findings of the content of

the literature review are presented in another article; the focus of this article is on the literature search process and the main challenges, both projected and unanticipated, which were faced by the research team. The literature search process is described in two interconnected stages: the selection of journals and the sampling of articles. Analysis is followed by discussion which also includes the subjective reasoning and reflections of the project team. Although the research team was familiar with what a systematic literature review is and how it is conducted, and had experience of the challenges that can arise and how to overcome them, they still experienced difficulties in conceptualising critical thinking. Challenges such as time-intensity were already known, but in this process, they revealed themselves in other ways. One such lesson – not to limiting the literature review to Q1 journals – was new and unexpected. Thus, it was decided to discuss these challenges and to enrich the very limited analysis of the methodological issues of the literature search process in the context of conceptualising a term. This article focuses on how material on critical thinking for a literature review was searched for, rather than what content was found. This experience tends to broaden the understanding of the initial phase in a systematic literature review process, and can help to increase awareness of what preparation for a literature review actually means.

Keywords: *literature search; systematic literature review; conceptualisation; critical thinking; higher education.*

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SOCIALINĖS MEDIJOS AUKŠTAJAME MOKSLE: STUDENTŲ PALANKUMAS SOCIALINIŲ MEDIJŲ NAUDOJIMUI

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Anotacija

Švietimo kontekste socialinių medijų kaip naujųjų technologijų vertinimo klausimas mokymo ar mokymosi aplinkoje yra aktualus kaip mokymo(si) proceso tobulinimo prielaida. Šio tyrimo tikslas yra ištirti veiksnius, lemiančius studentų palankumą socialinėms medijoms, kitaip sakant, socialinių medijų priėmimą ir jų naudojimą aukštojo mokslo studijose ir mokymo / mokymosi procese. Tyrime buvo siekta ištirti, kokių lygiu studentai priima socialines medijas, kaip jas vertina mokymosi aplinkoje, ar yra ryšys tarp elgesio intencionalumo ir medijų naudojimo, kaip demografiniai studentų veiksniai veikia socialinių medijų priėmimą. Konstruojant šio tyrimo modelį teoriniu pagrindu buvo pasirinktas UTAUT modelis. Tačiau remiantis realiomis tyrimo aplinkybėmis ir teorinėmis kitų autorių įžvalgomis UTAUT modelis buvo šiek tiek modifikuotas.

*Daugialypė regresinė analizė atskleidė statistikai reikšmingus ryšius tarp elgesio intencionalumo ir panaudojimo galimybių, požiūrio į socialines medijas ir rezultatų įrodomumo. Didžiausią įtaką daro požiūris į socialines medijas. Kiti du svarbūs elementai yra rezultatų įrodomumas ir panaudojimo galimybės. Tiesinė regresija taip pat rodo, kad tarp elgesio intencionalumo ir socialinių medijų naudojimo egzistuoja statistiškai reikšmingas vidutinio stiprumo ryšys. Kalbant apie demografinius faktorius, taikant Stjudento *t* kriterijų nustatyta, kad vaikinių ir merginų požiūris nesiskiria aritmetiškai ir nėra statistiškai reikšmingų požiūrio skirtumų.*

Tyrimas atliktas su išlygomis pirmiausia atsisakius naudojimo savanoriškumo / privalėjimo faktoriaus, kadangi socialinių medijų naudojimas nėra privalomas Lietuvos aukštojo mokslo įstaigose. Tyrimui pasitelkta netikimybinė patogioji imtis, kadangi tyrimas yra žvalgomojo pobūdžio. Tolimesniuose tyrimuose imtis turėtų tiksliau atspindėti generalinę aibę. Taip pat reikėtų tobulinti teorinį modelį.

Reikšminiai žodžiai: *elgesio intencionalumas, panaudojimo galimybės, socialinės medijos, socialinių medijų priėmimas, aukštojo mokslo studijos, mokymo / mokymosi procesas.*

Įvadas

„Web 2.0“ technologijų vystymasis, socialinių medijų populiarėjimas ir vis platesnis jų naudojimas ėmė daryti poveikį mokymo ir mokymosi procesams aukštojo mokslo institucijose. „Web 2.0“ technologijos apima vartotojų dalijimąsi informacija ir bendradarbiavimą. Terminas apima socialinius tinklaraščius, vaizdo įrašų dalijimosi internetinius tinklaraščius, „wiki“, „blogus“ ir kitas „Web 2.0“ pritaikymo rūšis, kai vartotojai yra įsitraukę į nuolatinę informacijos kūrimą ir vartojimą. Pagal dabartinius tyrimus (Ahmed et al., 2019) apie 95 % jaunų žmonių (amžiaus grupės – 13–17 ir 18–29) reguliariai naudoja socialines medijas. Pagal Alamri ir kt. (2020) „Web 2.0“ technologijų siūlomas potencialas, kuris kuria galimybes ir performuoja mūsų ryšius su objektais, vietomis ir vienas su kitu, dar nėra iki galo iširtas. Tai ypač akivaizdu mokymo ir mokymosi terpėje, kadangi tyrimai kaip socialinės medijos veikia pedagogiką ir socialinius ryšius – švietime tai yra augantis tyrimų laukas (Selwyn, 2012).

Pastaruoju metu socialinių medijų tyrimams skiriama vis daugiau dėmesio (Saha & Guha, 2019; Thelwall, 2008). Švietimo srityje tyrimai krypta į studentų socialinių medijų naudojimą mokymosi tikslams (Chugh et al., 2021; Selwyn, 2012).

Yang et al. (2010) padarė išvadą, kad aukštajame moksle skirtingi informacinių technologijų vartotojai nevienodai vertina informacines technologijas. Dėstytojai tikisi išlaikyti mokymo / mokymosi proceso kontrolę taip, kaip ir tradicinėje mokymo / mokymosi aplinkoje, nors studentai vertina tokių įrankių kaip pokalbiai, skelbimai ir kt., nukreiptų į socializaciją, bendravimą, naudojimą. Švietimo kontekste socialinių medijų kaip naujų technologijų priėmimo klausimas mokymo / mokymosi aplinkoje yra aktualus kaip mokymo / mokymosi proceso tobulinimo prielaida. Literatūroje apie informacines sistemas yra teigiama, kad naujų informacinių sistemų vertinimas yra intencionalumo naudojimo prielaida, svarbi ir pačių informacinių sistemų naudojimui.

Šio tyrimo tikslas yra iširti veiksnius, lemiančius studentų palankumą socialinėms medijoms, kitaip sakant, socialinių medijų priėmimą ir jų naudojimą. Tyrimo objektas – studentų socialinių medijų priėmimas aukštojo mokslo studijose ir naudojimas mokymosi procese.

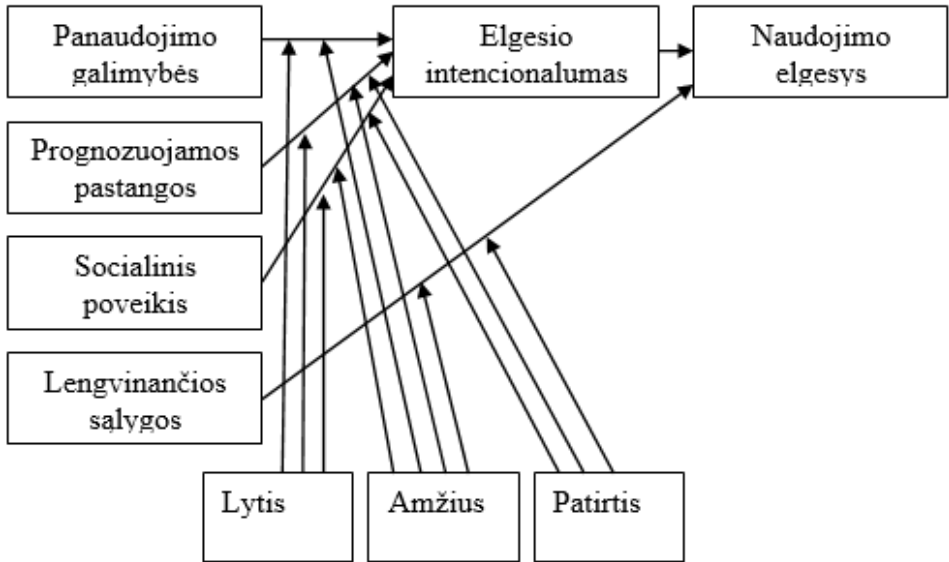
Tyrimo keliami probleminiai klausimai: Kokiu lygiu studentai priima socialines medijas? Kaip studentai priima socialines medijas mokymosi aplinkoje? Ar yra ryšys tarp studentų elgesio intencionalumo ir naudojimo? Kaip studentų demografiniai faktoriai veikia socialinių medijų priėmimą?

1. Teorinio modelio aprašymas

Mokslininkai, siekdami ištirti tam tikras tikslines grupes, kaip pagrindinę teoriją naudoja UTAUT. Jie nori išsiaiškinti informacinių technologijų vartotojų grupės elgesį ir, siekdami pademonstruoti šių vartotojų intencionalumą priimti technologijas, informacijos mokslo srityje taiko empirinę analizę. Gao ir Deng (2012) taikė UTAUT modelį analizuodami veiksnius, kurie daro įtaką vartotojų intencionalumui naudoti elektronines knygas. Tyrimas parodė, kad egzistuoja statistiškai reikšmingas ryšys tarp prognozuojamos eksploatacijos ir elgesio intencionalumo, taip pat tarp prognozuojamų pastangų ir elgesio intencionalumo. Atsižvelgdami į tyrimų rezultatus, Gao ir Deng pateikė įvairiausių pasiūlymų elektroninių knygų rinkai. Pasitelkę UTAUT, Hsu ir kt. (2014) išnagrinėjo pagrindinius veiksnius, darančius įtaką vartotojų intencionalumui naudoti elektronines knygas. Jų nuomone, šie veiksniai yra susiję su aplinkosaugos problemomis, suvokiama nauda ir geranorišku pasitikėjimu. Maduku (2015) rėmėsi UTAUT teorija tirdamas elgesio intencionalumą naudoti elektronines knygas, būdingą skirtingoms lytims. Tyrimo rezultatai parodė, kad technologijų priėmimas ir vystymas yra statistiškai reikšmingai susijęs su lyties faktoriumi. Lawson-Body ir kt. (2018) pritaikė UTAUT modelį tirdami elgesio paskatas naudojant programėles, skirtas elektroninėms knygoms skaityti. Buvo ištirta, kad socialinė įtaka daro tiesioginį ir netiesioginį poveikį vartotojų intencionalumui. Be to, tyrėjai taikė UTAUT modelį analizuodami fizinio aktyvumo programėlių (Liu et al., 2019), elektroninių programėlių, kurias naudoja medicinos seserys registruoti pacientų duomenims skubos tvarka (Maillet et al., 2015), taip pat duomenų grandinės technologijų (Li, 2020) priėmimą ir naudojimą.

Bendroji technologijų priėmimo ir naudojimo teorija ir teorinis modelis (UTAUT – angl. *the Unified Theory of Acceptance and Use of Technology*) yra vienas iš plačiausiai naudojamų modelių informacinių ir komunikacinių technologijų priėmimo modeliavimo tyrimuose. Šis modelis buvo sukurtas Venkatesh ir kt. (2003). UTAUT galėjo paaiškinti 70 % technologijų priėmimo elgesio (Masrom & Hussein, 2008). UTAUT sudarytas iš keturių pagrindinių konceptų (sąvokų):

1. panaudojimo galimybės (angl. *Performance expectancy*), kitais žodžiais tariant, suvokiamas naudingumas;
2. prognozuojamos pastangos (angl. *Effort expectancy*), kitaip sakant, suvokiamas naudojimo lengvumas, paprastumas;
3. socialinis poveikis (angl. *Social influence*);
4. lengvinančios sąlygos (angl. *Facilitating conditions*), kurios turi tiesioginį poveikį ketinimui panaudoti. Tokie kintamieji kaip lytis, amžius, patirtis ir savanoriškumas daro įtaką pagrindinėms sąvokoms.



Pav. 1. UTAUT modelis

Fig. 1. UTAUT model

UTAUT buvo suformuluotas remiantis konceptualiais ir empiriniais panašumais, sujungiančiais aštuonis svarbius technologijų asimiliavimo modelius: technologijų priėmimo modelį (angl. *Technology Acceptance Model (TAM)* (Davis, 1989); inovacijų difuzijos teoriją (angl. *Innovation Diffusion Theory (IDT)* (Rogers, 1995); motyvuotų veiksmų teoriją (angl. *Theory of Reasoned Action (TRA)* (Fishbein & Ajzen, 1975); motyvacijos modelį (angl. *Motivation Model (MM)* (Davis et al., 1992); planuojamo elgesio teoriją (angl. *Theory of Planned Behavior (TPB)* (Ajzen, 1991); TAM ir TPB kombinaciją (angl. *Combined TAM and TPB* (Taylor & Todd, 1995); asmeninio kompiuterio (PC) panaudojimo modelį (angl. *Model of PC Utilization (MPCU)* (Thompson et al., 1991); ir socialinę pažinimo teoriją (angl. *Social Cognitive Theory (SCT)* (Bandura, 1986).

Venkatesh ir kt. (2003) apibrėžė tokius faktorius:

1. Panaudojimo galimybės (angl. *Performance expectancy*), kurios parodo, kaip stipriai individas tiki tuo, kad naudojant sistemą bus pasiekta geresnių darbo rezultatų.
2. Prognozuojamos pastangos (angl. *Effort expectancy*), kurios susijusios su sistemos naudojimo paprastumu.
3. Socialinis poveikis (angl. *Social influence*), kuris parodo, kiek individui yra svarbu, kad kiti tiki tuo, jog jis turėtų naudoti sistemą.
4. Lengvinančios sąlygos (angl. *Facilitating conditions*), kurios parodo, kaip stipriai individas

tiki tuo, kad egzistuoja organizacijos ir techninės struktūros, palaikančios sistemos naudojimą.

5. Elgesio intencionalumas (angl. *Behavioral intention*), kuris parodo asmens subjektyvias galimybes elgtis tam tikru būdu.

Konstruojant šio tyrimo modelį teoriniu pagrindu buvo pasirinktas UTAUT modelis. Tačiau remiantis realiomis tyrimo aplinkybėmis ir teorinėmis kitų autorių išvalgomis UTAUT modelis buvo šiek tiek modifikuotas. Pirmiausia buvo eliminuotas kintamasis naudojimo savanoriškumas (angl. *voluntariness of use*).

Naudojimo savanoriškumas (angl. *voluntariness of use*). Ryšys tarp elgesio intencionalumo ir socialinės įtakos konstruktų buvo įrodytas empiriškai (Venkatesh & Davis, 2000), tačiau daug studijų parodė, kad socialinė įtaka stipriau veikia privalomosiose aplinkose (Davis et al., 1992). Venkatesh et al. (2003) taip pat atrado žymų tiesioginį efektą savanoriškų ir privalomų kontekstų socialinių poveikių konstruktui. Šiame tyrime tiriamieji socialines medijas naudoja mokymuisi kaip programinių dalykų dalį, todėl savanoriško naudojimo kintamasis nenaudojamas tyrimo modelyje.

Be to, nors UTAUT yra daugiaspektis modelis, tačiau remiantis kitų autorių išvalgomis jis buvo modifikuotas tokiais svarbiais faktoriais:

- požiūriu į technologijas (socialines medijas),
- rezultatų įrodomumu (angl. *result demonstrability*),
- matomumu (angl. *visibility*).

Woodrow (1991) išreiškė nuomonę, kad požiūris į technologijas yra vienas iš esminių veiksnių. Vartotojų požiūrių į technologijas monitoringas turėtų būti nenutrūkstamas procesas norint, kad technologijos būtų naudojamos efektyviam mokymui ir mokymuisi. Taip pat buvo panaudoti du esminiai faktoriai, susiję su technologijų priėmimu iš inovacijų difuzijos teorijos (angl. *Innovation Diffusion Theory* (IDT): rezultatų įrodomumas ir matomumas (Moore & Benbasat, 1991). Rezultatų įrodomumas atskleidžia rezultatų apčiuopiamumą naudojant technologijas, įtraukiant pastebimumą ir perdavimą (Moore & Benbasat, 1991). Matomumas parodo, iki kokio laipsnio asmuo gali matyti kitus asmenis, naudojančius technologijas organizacijoje (Venkatesh et al., 2003, adapted from Moore & Benbasat, 1991).

Taip UTAUT modelis buvo modifikuotas tyrimui.

Pav. 2. Modifikuotas UTAUT modelis

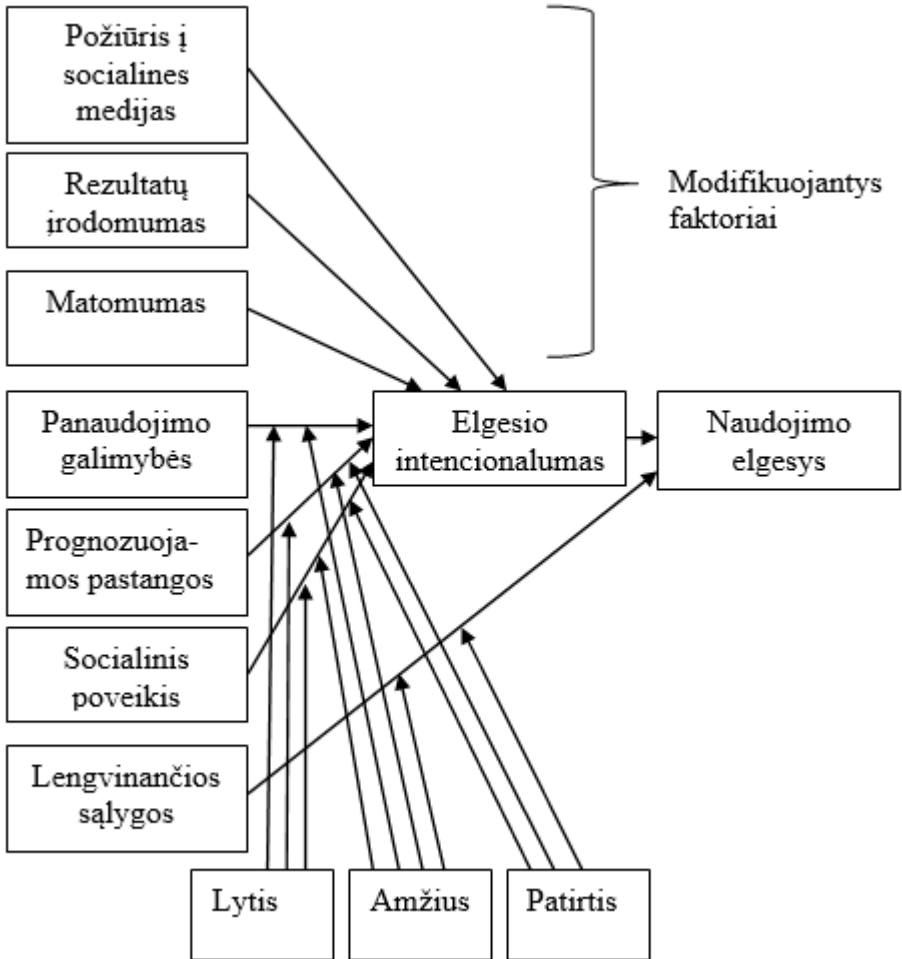


Fig. 2. Modified UTAUT model

2. Duomenų rinkimo procedūros. Imties pagrindimas ir apklausos organizavimas

Buvo tiriamas studentų socialinių medijų priėmimas ir naudojimas. Apklausti dviejų universitetų studentai: Mykolo Romerio universiteto ir Vytauto Didžiojo universiteto. Tyrimas

buvo žvalgomojo pobūdžio, todėl buvo naudojama netikimybinė patogioji ir tikslinė atranka, kadangi apklausai buvo pasirinktos studentų grupės, kuriose dėstytojai naudoja socialines medijas mokymui / mokymuisi. Tačiau vykdant tolimesnį tyrimą buvo taikoma atsitiktinė atranka, kai atsitiktinai pasirinkti fakultetai ir po to atsitiktinai pasirinktos studentų grupės apklausai. Taip pat buvo tikslinga atlikti atvejų analizę keliuose universitetuose, kadangi ir UTAUT teorinio modelio empirinis pagrindimas buvo atliktas tiriant technologijų priėmimo lygį atskirose organizacijose. Be to, kadangi tai buvo žvalgomasis tyrimas, apsiribota mažesniu skaičiumi anketų (203). Tačiau teoriškai siekiant, kad apklausa reprezentuotų generalinę aibę, derėtų apskaičiuoti imties dydį pagal formulę. Kitas svarbus aspektas – populiacijos pasiskirstymas pagal lytį. W. Borg ir M. Gall (cit. Cohen, Manion, Morrison, 2000) siūlo vadovautis nuostata, kad apklausoje turėtų dalyvauti ne mažiau kaip 100 žmonių, atstovaujančių didesniems populiacijos pogrupiams (šio tyrimo atveju merginos), ir ne mažiau kaip 20–50 žmonių, atstovaujančių mažesniems populiacijos pogrupiams (šio tyrimo atveju vaikinai). Kalbant apie socialinių medijų naudojimo patirtį, tam, kad būtų užtikrintas tinkamas populiacijos atstovavimas, reikėtų taikyti sluoksniinę, vadinamąją stratifikuotą atranką, kai generalinė aibė suskirstoma į tam tikrus pogrupius atsižvelgiant į socialinių medijų naudojimo patirtį, ir tada tuose pogrupiuose taikoma paprastoji atsitiktinė atranka; pogrupių santykis turėtų būti toks kaip studentų populiacijoje, daugmaž vienodas, pasiskirstęs pagal kursus. Kalbant apie tyrimų etiką, norint atlikti atvejo analizę universitete reikia gauti universiteto vadovybės sutikimą, įsipareigoti tyrimo pagrindu parengti publikacijų. Taip pat, stengiantis užtikrinti anketų grįžtamumą, reikia asmeniškai susisiekti su kolegomis, pristatyti tyrimą ir prašyti pagalbos platinti apklausas. Anketų grįžtamumas buvo aukštas – 94 %, kadangi buvo kreiptasi asmeniškai į dėstytojus ir prašyta platinti anketą tarp studentų, kuriems jie dėsto. Anketa buvo sudaryta stengiantis laikytis draugiškumo respondentui principo: anketos teiginiai suformuluoti remiantis pozityvių (teigiamų) sakinių principu. Tais atvejais, kai teko užduoti jautrius klausimus, pavyzdžiui apie vienišumą, teiginiai buvo susieti su neutraliu dažnumo faktoriumi, o ne su asmeninėmis savybėmis.

Validumas. Išorinis tyrimo instrumento validumas susijęs su imties sudarymu. Tyrimo imtis turėtų būti pasirenkama taip, kad kuo geriau atspindėtų generalinę aibę. Šio tyrimo imtis buvo sudaryta stengiantis išlaikyti generalizacijos principą, tačiau dėl to, kad tyrimas buvo žvalgomojo pobūdžio, apsiribota netikimybine patogiąja imtimi stengiantis apklausti pakankamą skaičių respondentų.

Vidinis klausimyno patikimumas yra pagrįstas statistiškai. Klausimyno skalės vidinis nuoseklumas buvo patikrintas naudojant Cronbacho alfa koeficientą, kurio reikšmė – 0,939 (1 lentelė) – rodo gerą instrumento vidinį nuoseklumą.

1 lentelė. Vidinio klausimyno nuoseklumo statistika

Table 1. Reliability statistics

Cronbacho alfa	Teiginių skaičius
.939	42

Be to, atsižvelgus į teiginių koreliacinių ryšių su klausimyno skale, iš klausimyno buvo pašalinti trys teiginiai, kurių koreliacijos koeficientas su klausimyno skale mažesnis negu 0,2; pažymėta žemiau pateiktame Priede 1.

3. Duomenų analizės procedūros

Duomenų analizei naudojami Cronbacho alfa koeficientų nustatymai siekiant išsiaiškinti vidinį klausimyno patikimumą. Faktorinė analizė pasitelkta norint patikrinti teorinio konstrukto faktorių išsidėstymą. Gauti rezultatai rodo, kad faktorinė analizė apytiksliai patvirtina teorinį modelį, nors stebimas nedidelis rezultatų išsibarstymas, kuris gali būti paaiškintas tuo, kad kai kurie teoriniai faktoriai yra glaudžiai susiję, ir papildantys faktoriai, įvesti į UTAUT teorinį konstrukta, gali daryti įtaką faktorių persiskirstymui atliekant faktorinę analizę. Taigi tolimesnėje statistinėje analizėje laikytasi teorinio modelio.

Tiesinė regresinė analizė padeda išsiaiškinti atsakymą į tyrimo klausimą: ar yra ryšys tarp elgesio intencionalumo ir naudojimo? Ji parodo, kad egzistuoja statistiškai reikšmingas vidutinio stiprumo ryšys. Be to, taikant daugialypę tiesinę regresiją, patikrintas elgesio intencionalumo ryšys su kitomis teorinio konstrukto dalimis.

Taikant dviejų faktorių dispersinę analizę tirta, kaip socialinių medijų naudojimo dažnumas ir laikas susijęs su įgytų įgūdžių vertinimu. Taikant Studento t kriterijų tikrinta, kaip demografiniai faktoriai, pvz., lytis, veikia socialinių medijų priėmimą.

3.1 Faktorinė analizė

Pagal priedą 1 matyti, kad iš klausimyno reikia pašalinti tris teiginius, kurie sudaro vieną teorinio konstrukto bloką. Taigi atlikta patvirtinančioji faktorinė analizė aštuoniems faktoriams.

Lentelėje yra svarbūs kintamųjų standartiniai nuokrypiai. Matyti, kad su mažais standartiniais nuokrypiais kintamųjų nėra (Priedas 2). Nustatyta, kad KMO matas labai geras, lygus 0,896. Bartleto sferiškumo kriterijus $p < 0,001$ rodo, kad koreliacinė matrica statistiškai reikšmingai skiriasi nuo vienetinės matricos, kintamieji yra koreliuoti. Duomenys faktorinei analizei yra tinkami.

2 lentelė. KMO kriterijaus ir Bartlett'o sferiškumo kriterijaus testas

Table 2. KMO and Bartlett's Test

Kaiser-Meyer-Olkin kriterijus		.896
Bartlett'o sferiškumo kriterijaus testas	Apytiksl. Chi-kvadratas	4191.344
	df	703
	Sig.	.000

Bendrumą lentelėje matyti, kad nėra kintamųjų, silpnai susijusių su gautais faktoriais (Priedas 3).

Išanalizavus faktorių matricą po pasukimo (Priedas 4) nustatyta, kad faktorinė analizė apytiksliai patvirtino teorinį modelį.

Su aštuntuoju faktoriumi stipriai koreliuoja kintamieji „Išbandžiau SM prieš naudojimą“ ir

„Pastebėjau dėstytojus naudojant SM“, kurie sudaro teorinio modelio matomumo bloką.

Su septintuoju faktoriumi stipriai koreliuoja kintamieji „SM palengvina studijų planavimą“, „SM pagreitina užduočių atlikimą“, kurie sudaro teorinio modelio rezultatų įrodomumo bloką.

Su šeštuoju faktoriumi stipriai koreliuoja kintamieji „Dėstytojai skatina SM naudojimą“ ir „Universitetas palaiko SM naudojimą“, kurie sudaro teorinio modelio socialinio poveikio bloką.

Su penktuoju faktoriumi stipriai koreliuoja kintamieji „SM yra malonus“, „SM suteikia įdomumo“, „Norėčiau naudoti blogus, wiki studijoms“, „Norėčiau naudoti pod. ir webcastus studijoms“, kurie sudaro teorinio modelio požiūrio į socialines medijas bloką.

Su ketvirtuoju faktoriumi stipriai koreliuoja kintamasis „Spec. pagalba yra pasiekama“, kuris sudaro teorinio modelio lengvinančių sąlygų bloko dalį.

Su trečiuoju faktoriumi stipriai koreliuoja kintamieji „SM gerina studijų procesą“, „SM didina galimybes atlikti užduotis“, „SM naudingos studijose“, „SM atitinka mokymosi stilių“, kurie sudaro teorinio modelio panaudojimo galimybių bloką.

Su antruoju faktoriumi stipriai koreliuoja kintamieji „Naudosiu SM atlikti užduotis“, „Naudosiu SM kuo dažniau“, „Ketinu naudoti SM studijose“, „Planuoju naudoti SM per 3 mėn.“, kurie sudaro teorinio modelio elgesio intencionalumo bloką.

Su pirmuoju faktoriumi stipriai koreliuoja kintamieji „Galiu be pastangų naudoti SM“, „Lengva naudoti SM“, „Sąveika su SM aiški“, „Lengva prisiminti užd. atlikimą su SM“, „SM nereikalauja mąstymo pastangų“, „SM nėra erzintis“, kurie sudaro teorinio modelio pastangų galimybių bloką.

Nedidelis rezultatų išsibirstymas gali būti paaiškintas tuo, kad kai kurie teoriniai faktoriai yra glaudžiai susiję, ir į teorinį UTAUT konstrukta įvesti papildantys faktoriai gali paveikti faktorių persiskirstymą atliekant faktoriinę analizę. Taigi tolimesnėje statistinėje analizėje laikytasi teorinio modelio.

3.2 Studentų demografiniai faktoriai ir socialinių medijų priėmimas

Naudojant Stjudento t kriterijų keltas klausimas, ar merginų ir vaikinių požiūris į socialines medijas skiriasi. Matyti, kad $\text{sig} = 0,251$, tai reiškia, kad dispersijos yra lygios. Vaikinių ir merginų požiūris nesiskiria aritmetiškai ir nėra statistiškai reikšmingų požiūrio skirtumų, nes $p = 0,687$; $t = 0,403$; $df = 201$ (3 lentelė).

3 lentelė. Stjudento t kriterijaus lentelė

Table 3. Student's t-test

Nepriklausomų vienetų testas		Levene testas		T-testas vidurkių lygiavertiškumui				
		F	Sig.	t	df	Sig. (2-tailed)	Vidurkio skirtumas	Paklaidos skirtumas
Pozitech- vidurkis	Dispersijos statistiškai reikšmingai nesiskiria	1.324	.251	.403	201	.687	.04949	.12276
	Dispersijos statistiškai reikšmingai skiriasi			.393	141.037	.695	.04949	.12585

3.3 Ryšys tarp elgesio intencionalumo ir socialinių medijų naudojimo

Siekiant nustatyti ryšio pobūdį tarp elgesio intencionalumo ir socialinių medijų naudojimo pasitelkta regresija. 4 lentelėje matyti, kad ryšys yra statistiškai reikšmingas $p = 0,000$.

4 lentelė. Regresijos lentelė

Table 4. ANOVA (variance analysis)

ANOVA^a

Modelis		Kvadratų suma	df	Kvadratų vidurkis	F	Sig.
1	Regresija	63.759	1	63.759	80.002	.000b
	Likutis	159.394	200	.797		
	Bendra suma	223.153	201			

a. Priklausomas kintamasis: naudojimo elgesio vidurkis

b. Prognostiniai faktoriai: (Konstanta), elgesio intencionalumo vidurkis

5 lentelėje matyti, kad determinacijos koeficientas $r^2 = 0,286$, vadinasi, galima taikyti tiesinę regresiją.

5 lentelė. Determinacijos koeficientas

Table 5. Coefficient of determination

Modelio santrauka

Modelis	R	R kvadratas	Pritaikytas R kvadratas	Paklaida
1	.535 ^a	.286	.282	.89273

a. Prognostiniai faktoriai: (Konstanta), elgesio intencionalumo vidurkis

Koeficientas lentelėje $r = 0,535$ rodo, kad ryšys tarp socialinių medijų naudojimo ir elgesio intencionalumo yra vidutinio stiprumo.

Toliau, taikant daugialypę tiesinę regresiją, patikrintas elgesio intencionalumo ryšys su kitais teoriniais konstruktais: socialinių medijų panaudojimo galimybėmis, prognozuojamomis pastangomis, socialiniu poveikiu, požiūriu į socialines medijas, rezultatų įrodomumu ir matomumu.

6 lentelėje matyti, kad $r^2 = 0,633$, vadinasi, galima taikyti tiesinę regresiją.

6 lentelė. Daugialypė tiesinė regresija**Table 6.** Multiple linear regression

Modelio santrauka

Modelis	R	R kvadratas	Pritaikytas R kvadratas	Paklaida
1	.796 ^a	.633	.622	.54371

a. Prognostiniai faktoriai: (Konstanta), matomumo vidurkis, panaudojimo galimybės vidurkis, prognozuojamų pastangų vidurkis, socialinio poveikio vidurkis, požiūrio į technologijas vidurkis, rezultatų įrodomumo vidurkis

7 lentelėje, kurioje nurodyti koeficientai, matyti, kad egzistuoja statistiškai reikšmingi ryšiai tarp elgesio intencionalumo ir panaudojimo galimybių, požiūrio į socialines medijas ir rezultatų įrodomumo ($p = 0,006$). Didžiausią įtaką daro požiūris į socialines medijas ($\beta = 0,375$). Kiti svarbūs elementai yra rezultatų įrodomumas ($\beta = 0,298$) ir panaudojimo galimybės ($\beta = 0,159$).

7 lentelė. Koeficientų lentelė**Table 7.** Coefficients

Modelis		Nestandardizuoti koeficientai		Standartizuoti koeficientai	t	Sig.
		B	Paklaida	Beta		
1	(Konstanta)	.285	.235		1.215	.226
	Panaudojimo galimybių vidurkis	.181	.065	.159	2.775	.006
	Prognozuojamų pastangų vidurkis	.001	.064	.001	.022	.982
	Socialinio poveikio vidurkis	.084	.070	.071	1.201	.231
	Požiūrio į technologijas vidurkis	.395	.066	.375	6.015	.000
	Rezultatų įrodomumo vidurkis	.281	.063	.298	4.456	.000
	Rezultatų matomumo vidurkis	.057	.056	.056	1.025	.307

a. Priklausomas kintamasis: elgesio intencionalumo vidurkis

Kitų faktorių: prognozuojamų pastangų, socialinio poveikio ir rezultatų matomumo koeficientai yra statistiškai nereikšmingi.

Šio tyrimo koreliacinės analizės rezultatai skiriasi nuo UTAUT teorinio modelio, validuoto Venkatesh et al. (2003). Reikia pripažinti, kad Venkatesh et al. (2003) tyrimai buvo atlikti organizacijose, kuriose technologijų naudojimas buvo privalomas. O šiuo tyrimu aprėptose įstaigose socialinių medijų naudojimas nėra privalomas. Tai gali būti priežastis, kodėl socialinis poveikis ir prognozuojamos pastangos praranda reikšmingumą, kadangi vartotojai nepatiria išorinio spaudimo naudoti socialines medijas.

Kalbant apie tris faktorius, nepriklausančius UTAUT modeliui, kuriais jis buvo modifikuotas, paaiškėjo, kad du iš jų – požiūris į socialines medijas ($\beta = 0,375$) ir rezultatų įrodomumas ($\beta = 0,298$) – turi statistiškai reikšmingą ryšį su elgesio intencionalumu, o rezultatų matomumas yra statistiškai nereikšmingas. To priežastis gali būti ta pati, kaip minėta anksčiau, – kad tyrimai atlikti įstaigose, kuriose socialinių medijų naudojimas nėra privalomas arba UTAUT modelį užtenka modifikuoti dviem faktoriais.

Išvados

Atlikus teorinio modelio validavimą, pasitelkus faktorinę analizę, buvo nustatytas nedidelis rezultatų išsibarstymas, kuris gali būti paaiškintas kai kurių teorinių faktorių susietumu ir papildomų konstrukčių įvedimu į UTAUT modelį. Taip pat reiktų atsižvelgti į tai, kad UTAUT empirinis patvirtinimas buvo atliktas verslo organizacijose, kuriose technologijų naudojimas buvo instacionalizuotas kaip privalomas. O šis tyrimas atliktas aukštojo mokslo institucijose, kuriose socialinių medijų naudojimas nėra privalomas.

Daugialypė regresinė analizė atskleidė statistiškai reikšmingus ryšius tarp elgesio intencionalumo ir panaudojimo galimybių, požiūrio į socialines medijas ir rezultatų įrodomumo. Tyrimas atskleidžia, kad didžiausią įtaką studentų socialinių medijų priėmimui daro požiūris į socialines medijas. Kiti du svarbūs elementai, turintys poveikį, yra rezultatų įrodomumas ir panaudojimo galimybės. Tiesinė regresija taip pat rodo, kad tarp elgesio intencionalumo ir socialinių medijų naudojimo egzistuoja statistiškai reikšmingas vidutinio stiprumo ryšys.

Kalbant apie demografinius faktorius, taikant Studento *t* kriterijų nustatyta, kad vaikinių ir merginų požiūris nesiskiria aritmetiškai ir nėra statistiškai reikšmingų požiūrio skirtumų. Šis rezultatas rodo, kad lytis gali neturėti įtakos požiūriui į socialines medijas.

Tyrimas atliktas su išlygomis pirmiausia atsisakant naudojimo savanoriškumo / privalėjimo faktoriaus, kadangi socialinių medijų naudojimas nėra privalomas Lietuvos aukštojo mokslo įstaigose. Tyrime naudota netikimybinė patogioji imtis, kadangi tyrimas yra žvalgomojo pobūdžio.

Tolimesniuose tyrimuose imtis turėtų tiksliau atspindėti generalinę aibę. Taip pat reiktų tobulinti teorinį modelį.

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SOCIAL MEDIA IN HIGHER EDUCATION: STUDENTS' ACCEPTANCE OF SOCIAL MEDIA USE

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Summary

Yang et al. (2010) concluded that different users of information technologies in higher education have different approaches to information technology. Teachers expect to maintain control over the teaching/learning process as in the traditional teaching/learning environment, while students appreciate the use of tools such as interviews, advertisements, etc., aimed at socialization and communication. In the context of education, the issue of acceptance of social media as a new technology in the teaching/learning environment is relevant as a precondition for the improvement of the teaching/learning process. The literature on information systems states that the adoption of new information systems is a prerequisite for the intentionality of use and the use of information systems themselves. Researchers actively investigate the acceptance and use of various information technologies in multiple educational contexts (Liu et al., 2019; Li, 2020). **The aim** of this study is to investigate the factors that determine students' acceptance of social media – in other words, social media adoption and use. The object of the research is students' acceptance of social media in higher education studies and its use in the process of teaching/learning. The objectives of the research consist of the selection of a theoretical model of social media based on literature studies and analysis, the empirical verification of this model, and the study of the factors determining students' social media acceptance. The research questions are the following: What is the level of students' social media acceptance? How do students accept social media in the teaching/learning environment? Is there a correlation between behavioural intentionality and use? How do students' demographic factors affect social media acceptance?

In constructing the model of this study, the unified theory of acceptance and use of technology (UTAUT) model was chosen on a theoretical basis. Based on real research circumstances and the theoretical insights of other authors, the UTAUT model was slightly modified by eliminating the variable of voluntariness of use. The UTAUT theoretical model is one of the most widely used models in studies of information and communication technology acceptance modelling. Gao and Deng (2012) applied the UTAUT model to analyse the factors that influence users' intentionality to use e-books. Their study showed that there is a statistically significant relationship between exploitation expectancy and behaviour intentionality, and between performance expectancy

and behavioural intentionality. Based on their research results, Gao and Deng made various proposals for the e-book market. Using UTAUT, Hsu et al. (2014) examined the main factors influencing consumers' intentionality to use e-books and suggested that the factors influencing consumers' intentionality to use e-books are related to environmental issues, perceived benefits and benevolent trust. Maduku (2015) relied on the UTAUT theory to investigate gender-specific behaviour intentionality in using e-books. The results of their study showed that the acceptance and development of technology is statistically significantly related to the gender factor. Lawson-Body et al. (2018) applied the UTAUT model to study behavioural incentives for e-book reading apps. It was found that social influence affects consumer intentionality directly and indirectly. In addition, researchers have applied the UTAUT model to study the acceptance and use of physical activity apps (Liu et al., 2019), electronic apps used by nurses to record patient data in emergency settings (Maillet et al., 2015), and data chain technologies (Li, 2020).

Students' acceptance and use of social media was analysed in this study. Students of two universities were interviewed: Mykolas Romeris University and Vytautas Magnus University. The research was exploratory in nature; therefore, non-probability convenience and purposive sampling was used, as the selected student groups were the groups that were taught using social media. The return rate of the questionnaires was high, at 94%, as teachers were personally approached and asked to distribute the questionnaire to the students they teach. The questionnaire was compiled in an effort to adhere to the principle of friendliness to the respondent: the statements of the questionnaire were formulated based on the principle of positive sentences. Where sensitive questions had to be asked, for example about loneliness, the formulated statements related to a neutral frequency factor and not to personal characteristics.

Cronbach's alpha coefficients were used for data analysis to determine the internal reliability of the questionnaire. Factor analysis was used to check the factor arrangement of the theoretical construct. Linear regression analysis helped to clarify the answer to the research question: Is there a relationship between behaviour intentionality and use? This showed a statistically significant relationship of moderate strength. We also tested the relationship of behavioural intentionality with other parts of the theoretical construct using multiple linear regression.

Using a two-factor analysis of variance, we analysed how frequency and time of social media use are related to the assessment of acquired skills. Using the Student's t-test, we tested how demographic factors such as gender affect the acceptance of social media.

After validation of the theoretical model with the help of factor analysis, a small scattering of the results was observed, which can be explained by the correlation of some theoretical factors and the extension of the UTAUT model by additional constructs. It should also be taken into account that the empirical validation of the UTAUT model was carried out in business organizations where the use of technology was institutionalized as mandatory, whereas this study was conducted in higher education institutions where the use of social media is not mandatory. Multiple regression analysis revealed statistically significant relationships between behavioural intentionality and usability, attitudes toward social media, and provability of results. Attitude towards social media had the greatest influence on students' acceptance of social media, and the other important impactful elements were provability of results and usability. Linear regression also showed that there was a statistically significant medium strength relation between social media use and behavioural

intention. Regarding demographic factors, applying the Student's t criterion, it was found that the attitudes of young males and females did not differ arithmetically and there were no statistically significant differences in attitudes. This result can be explained by the fact that cultural factors may influence attitudes towards social media, while gender may not demonstrate such an effect. The limitations of the study include the lack of the voluntary/obligatory factor of use, as the use of social media is not mandatory in Lithuanian higher education institutions, and the use of a non-probabilistic availability sample for the study because of the exploratory nature of the research. In further research, the sample should be organized to reflect the general population more accurately and the theoretical model should also be improved.

Keywords: *behaviour intentionality, performance expectancy, social media, social media acceptance, higher education studies, teaching/learning process.*

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1 priedas. Teiginių koreliacinis ryšys su klausimyno skale**Annex 1. Item-total statistics**

	Skalės vidurkis pašalinus vienetą	Skalės kintamumas pašalinus vienetą	Koreliacija po pakoregavimo	Cronbacho alfa pašalinus vienetą
SM naudingos studijose	140.83	567.821	.543	.938
SM gerina studijų procesą	141.10	568.508	.525	.938
SM didina galimybes atlikti užduotis	140.96	569.431	.511	.938
SM didina bendravimą su studentais	140.46	568.967	.520	.938
SM didina bendravimą su dėstytojais	141.02	570.000	.466	.938
SM atitinka mokymosi stilių	141.47	570.796	.529	.938
Lengva naudoti SM	140.49	568.444	.594	.938
SM nėra erzinantis	141.45	572.805	.437	.939
Sąveika su SM aiški	141.04	566.939	.605	.937
Galui be pastangų naudoti SM	140.86	572.248	.470	.938
Lengva prisiminti užd. atlikimą su SM	141.13	566.850	.584	.938
SM nereikalauja mąstymo pastangų	141.26	576.672	.365	.939
SM nereikalauja daug laiko	141.99	575.770	.333	.940
Dėstytojai skatina SM naudojimą	141.35	579.769	.301	.940
Studentai skatina SM naudojimą	141.21	566.262	.505	.938
Universitetas palaiko SM naudojimą	140.81	571.193	.533	.938
SM gerina mano prestižą tarp dėstytojų	142.12	574.910	.408	.939
SM gerina prestižą tarp studentų	141.67	568.885	.472	.938
Turiu žinių naudoti SM	140.74	569.143	.603	.937
SM yra suderintos su kitomis programomis	141.06	571.429	.526	.938
Spec. pagalba yra pasiekama	141.16	574.331	.427	.939
SM yra gera idėja	140.50	563.706	.677	.937
SM yra malonus	140.97	563.844	.667	.937
SM suteikia įdomumo	140.80	563.339	.644	.937
Patinka mokytis naudojant SM	141.02	559.256	.719	.936
Norėčiau naudoti blogus, wiki studijoms	141.91	567.099	.447	.939

Norėčiau naudoti pod. ir webcastus studijoms	141.95	566.762	.471	.938
SM pagreitina užduočių atlikimą	141.13	557.378	.714	.936
SM palengvina studijų planavimą	141.34	559.883	.671	.937
Nesunku paaiškinti SM privalumus	141.39	561.780	.624	.937
Pastebėjau dėstytojus naudojant SM	141.51	574.508	.420	.939
Pastebėjau studentus naudojant SM	141.11	571.432	.518	.938
Išbandžiau SM prieš naudojimą	141.37	576.770	.297	.940
Ketinu naudoti SM studijose	141.07	557.620	.714	.936
Planuoju naudoti SM per 3 mėn.	140.61	569.374	.542	.938
Naudosiu SM atlikti užduotis	141.04	559.175	.701	.937
Naudosiu SM kuo dažniau	141.14	560.862	.692	.937
Gerai naudoti SM kartu su tradiciniais met.	140.86	562.483	.639	.937
Ar naudojate greitąsias žinutes	140.27	589.332	.118	.941
Ar naudojate podcast.	142.16	583.172	.189	.941
Ar naudojate socialinį žymėjimą	142.84	590.267	.096	.941
Naudodamas SM įgijau efektyvumo įgūdžių	140.98	564.492	.618	.937

2 priedas. Kintamųjų standartiniai nuokrypiai

Annex 2. Item descriptive statistics

	Vidurkis	Nuokrypiai	N analizė
SM naudingos studijose	3.81	1.067	190
SM gerina studijų procesą	3.54	1.082	190
SM didina galimybes atlikti užduotis	3.68	1.073	190
SM didina bendravimą su studentais	4.16	1.087	190
SM didina bendravimą su dėstytojais	3.59	1.154	190
SM atitinka mokymosi stilių	3.16	.990	190
Lengva naudoti SM	4.14	.972	190
SM nėra erzinantis	3.18	1.088	190
Sąveika su SM aiški	3.59	.997	190
Galiu be pastangų naudoti SM	3.77	1.042	190
Lengva prisiminti užd. atlikimą su SM	3.51	1.033	190
SM nereikalauja mąstymo pastangų	3.38	1.071	190

SM nereikalauja daug laiko	2.65	1.211	190
Dėstytojai skatina SM naudojimą	3.28	1.079	190
Studentai skatina SM naudojimą	3.42	1.200	190
Universitetas palaiko SM naudojimą	3.81	.974	190
SM gerina mano prestižą tarp dėstytojų	2.51	1.048	190
SM gerina prestižą tarp studentų	2.96	1.168	190
Turiu žinių naudoti SM	3.89	.933	190
SM yra suderintos su kitomis programomis	3.56	.978	190
Spec. pagalba yra pasiekama	3.46	1.042	190
SM yra gera idėja	4.14	.993	190
SM yra malonus	3.66	1.005	190
SM suteikia įdomumo	3.84	1.049	190
Patinka mokytis naudojant SM	3.61	1.067	190
Norėčiau naudoti blogus, wiki studijoms	2.72	1.306	190
Norėčiau naudoti pod. ir webcastus studijoms	2.68	1.259	190
SM pagreitina užduočių atlikimą	3.51	1.126	190
SM palengvina studijų planavimą	3.29	1.111	190
Nesunku paaiškinti SM privalumus	3.24	1.132	190
Pastebėjau dėstytojus naudojant SM	3.14	1.040	190
Pastebėjau studentus naudojant SM	3.53	.980	190
Išbandžiau SM prieš naudojimą	3.26	1.273	190
Ketinu naudoti SM studijose	3.55	1.120	190
Planuoju naudoti SM per 3 mėn.	4.03	1.021	190
Naudosiu SM atlikti užduotis	3.60	1.093	190
Naudosiu SM kuo dažniau	3.50	1.058	190
Gerai naudoti SM kartu su tradiciniais met.	3.77	1.088	190

3 priedas. Faktorinės analizės bendrumų lentelė

Annex 3. Communalities

	Ekstrakcija
SM naudingos studijose	.705
SM gerina studijų procesą	.731
SM didina galimybes atlikti užduotis	.671
SM didina bendravimą su studentais	.683
SM didina bendravimą su dėstytojais	.554
SM atitinka mokymosi stilių	.534
Lengva naudoti SM	.710
SM nėra erzinantis	.467
Sąveika su SM aiški	.671
Galiu be pastangų naudoti SM	.668
Lengva prisiminti užd. atlikimą su SM	.624

SM nereikalauja mąstymo pastangų	.576
SM nereikalauja daug laiko	.702
Dėstytojai skatina SM naudojimą	.620
Studentai skatina SM naudojimą	.691
Universitetas palaiko SM naudojimą	.682
SM gerina mano prestižą tarp dėstytojų	.675
SM gerina prestižą tarp studentų	.651
Turiu žinių naudoti SM	.685
SM yra suderintos su kitomis programomis	.687
Spec. pagalba yra pasiekama	.519
SM yra gera idėja	.665
SM yra malonus	.665
SM suteikia įdomumo	.665
Patinka mokytis naudojant SM	.701
Norėčiau naudoti blogus, wiki studijoms	.690
Norėčiau naudoti pod. ir webcastus studijoms	.717
SM pagreitina užduočių atlikimą	.727
SM palengvina studijų planavimą	.696
Nesunku paaiškinti SM privalumus	.557
Pastebėjau dėstytojus naudojant SM	.580
Pastebėjau studentus naudojant SM	.646
Išbandžiau SM prieš naudojimą	.610
Ketinu naudoti SM studijose	.714
Planuoju naudoti SM per 3 mėn.	.613
Naudosiu SM atlikti užduotis	.779
Naudosiu SM kuo dažniau	.766
Gerai naudoti SM kartu su tradiciniais met.	.623
Ekstrakcijos metodas: Esminių komponentų analizė.	

4 priedas. Faktorių matrica po pasukimo^a

Annex 4. Rotated component matrix

	Komponentas							
	1	2	3	4	5	6	7	8
Galiu be pastangų naudoti SM	.791	.103		.115				
Lengva naudoti SM	.733	.246	.192		.188		-.145	
Sąveika su SM aiški	.724	.201	.245				.194	
Turiu žinių naudoti SM	.703	.181	.160	.173	.132	.190	-.122	.185
Lengva prisiminti užd. atlikimą su SM	.697	.168	.123	.160		.148	.180	
SM nereikalauja mąstymo pastangų	.682			.181			.252	

SM yra suderintos su kitomis programomis	.531	.153	.309	.346	-.125	-.171		.347
SM nėra erzinantis	.470	.162	.271	-.156	.150		.281	.121
Nesunku paaiškinti SM privalumus	.411	.365	.164	.196		.200	.236	.306
Naudosiu SM atlikti užduotis	.182	.803	.195	.153	.159	.112		
Naudosiu SM kuo dažniau	.139	.790	.205	.172	.190		.111	
Ketinu naudoti SM studijose	.184	.704	.307	.134	.182			.170
Planuoju naudoti SM per 3 mėn.	.298	.685		.120		.137	-.126	
SM palengvina studijų planavimą	.131	.594	.226	.158	.127	.157	.433	.149
SM pagreitina užduočių atlikimą	.185	.530	.286	.153	.242	.255	.427	
Gerai naudoti SM kartu su tradiciniais met.		.528	.418	.206	.331			
SM yra malonus	.344	.405	.380	.223	.391	-.184		
SM gerina studijų procesą	.136	.173	.774			.263		
SM didina galimybes atlikti užduotis		.177	.748	.179		.123	.163	
SM naudingos studijose	.219	.236	.695			.334		
SM atitinka mokymosi stilių	.177	.130	.589		.231		.176	.225
SM yra gera idėja	.341	.423	.581		.135			
Patinka mokytis naudojant SM	.280	.462	.507	.153	.337	-.112		
SM suteikia įdomumo	.155	.342	.491	.295	.411	-.163		
SM didina bendravimą su dėstytojais	.153	.153	.440	.128	.182	.439		-.254
SM gerina prestižą tarp studentų		.112		.689	.357		.136	
Pastebėjau studentus naudojant SM	.203	.279		.685		.148		.176
Studentai skatina SM naudojimą	.229	.170		.675	.185	.318		-.130
Spec. pagalba yra pasiekiamą	.307	.219	.269	.463	-.251	-.146		
Norėčiau naudoti blogus, wiki studijoms	.119	.183	.134		.776		.102	
Norėčiau naudoti pod. ir webcastus studijoms	.113	.319			.758			
Dėstytojai skatina SM naudojimą		.124	.225	.134		.678		.251
Universitetas palaiko SM naudojimą	.321	.194	.304	.186		.594	-.158	.188
SM nereikalauja daug laiko	.261						.784	
SM gerina mano prestižą tarp dėstytojų			.268	.327	.387		.458	.361
Išbandžiau SM prieš naudojimą					.245	.212		.694
Pastebėjau dėstytojus naudojant SM	.144	.220		.479		.161	.116	.483
SM didina bendravimą su studentais	.396	.244	.294	.366	.122	.138		-.457
Ekstrakcijos metodas: Esminių komponentų analizė. Rotacijos metodas: Varimax su Kaiser normalizacija.								
a. Rotacija konvergavo 10 iteracijų.								

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