VYTAUTO DIDŽIOJO
UNIVERSITETO
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AKADEMIJA

How do Primary School Teachers Create Meaningful Learning Environment to Motivate Students?

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Annotation. The qualitative research aimed to reveal how a teacher creates a meaningful learning environment for primary school students in order to stimulate their motivation for learning. Eight primary school teachers participated in the focus group interviews. During the inductive analysis of the research data, five thematic categories were identified, that reflected the types of teachers activities encouraging students to learn and creating preconditions for meaningful learning of students.

Keywords: *primary school teachers, primary school students, meaningful learning, learning motivation.*

Introduction

The learning environment is an important factor in students' motivation to learn and their academic achievement (Eccles & Roeser, 2011). Teachers are the primary creators of the learning environment, and one of their primary tasks is to create an environment that engages students in learning and increases or maintains their motivation. Student motivation and engagement influence student learning success (Boiché & Stephan, 2014;

Martin et al., 2017). The decreasing motivation to learn in primary grades causes concern (Rufini et al., 2012), and this tendency is especially evident when moving to higher grades (Martin, 2009; Stroet et al., 2015; Van der Werf et al., 2008; Yeung et al., 2011). Therefore, it is important to analyse the reasons for the decrease in the learning motivation of primary school students, as well as the teacher created learning environment and their employed strategies to promote learning motivation. According to Opdenakker and Minnaert (2011), the learning environment is not only a place to measure student outcomes but also a crucial context for students' development, whereas the impact of the teacher as the creator of the learning environment is unique and decisive.

One way to enhance students' motivation and achievement is to make their learning meaningful (Beni et al., 2019, Loyens & Gijbels, 2008; Van Rijk et al., 2017) by creating a meaningful learning environment that emphasizes cognitive, social, and emotional aspects of learning, as well as fully engages a person. Researchers are constantly looking for methods and tools that make learning meaningful for learners (Ignlezi, 2000; Kretchmar, 2006; Kostiainen et al., 2018; Mystakidis, 2021; Polman et al., 2021; Vallori, 2014). It has been determined that learning motivation is particularly enhanced by the experience of success (Filgona et al., 2020; Koca, 2016; Rantalaa & Määttäb, 2012), students' belief in learning success, as well as their empowerment and promotion of their autonomy (Koca, 2016; Bojović & Antonijević, 2017).

Compared to traditional education, a meaningful learning environment motivates students to make more efforts and leads to a better transfer of knowledge from the classroom to the outside world (Wilson, 2020). A meaningful learning environment links learning with students' needs and interests, motivates students to put in more effort, and allows them to experience the value of learning activities outside of school (Van Oers, 2009). Researchers note that meaningful learning construction is related to teaching methods such as inquiry and problem-solving, which encourage analysing and relating existing information to new concepts (Hanani, 2020; Mystakidis, 2021). As revealed by the study conducted by Polman et al. (2021), when creating a meaningful learning environment for primary school students in mathematics, teachers consider educational contexts that activate students' prior knowledge and connect it to students' personal worlds and values outside the school as important. As a way of strengthening meaningful learning, teachers use goal setting for/with students, create cross-curricular and future-oriented contexts, and share personal experiences in practice.

Collaborative learning is considered an effective way to make learning meaningful (Keramati & Gillies, 2022; Kostiainen et al., 2018; Polman et al., 2021; Vallori, 2014) and create opportunities for students to question, explain, and elaborate their thoughts and co-construct solutions. Polman et al. (2021) identified that primary education teachers' practices to promote and support meaningful learning in teaching mathematics included collaboration and dialogue, independent work, and experiential learning. Experiential learning as an important element of a meaningful learning environment is recorded in

the works of other researchers (Beni et al., 2017; Polman et al., 2021). However, in order to better understand how a teacher can create an environment of meaningful learning in the classroom, it is important to discuss the concept of meaningful learning in more detail.

The concept of meaningful learning is defined in various ways in literature, and it also acquires different meanings in educational practice. Meaningful learning is considered a phenomenon that describes a personally prized, rich, and valuable learning experience (Ní Chróinín et al., 2018; Hakkarainen et al., 2007), and such learning is recognised as an important goal of education (Mayer, 2002; 2009). Meaningful learning occurs when students develop the knowledge and cognitive processes necessary for successful problem-solving. This means that learning is not limited to the retention of knowledge, but is also aimed at transferring it, which requires not only remembering, but also understanding and using what has been learned (Mayer, 2002). The concept of meaningful learning refers to the process through which new knowledge is connected to the learner's cognitive structure (Ausubel, 1968), yet it is not a simple merging of the student's existing and new knowledge: as the new knowledge acquires meaning for the learner, the cognitive structure is transformed (Mayer, 2002; Valadares, 2013). The concept of meaningful learning is based on constructivism, which is grounded on the principle that a person constructs and manages his/her own learning, and creates his/her own understanding of the world and knowledge by going through and reflecting on the acquired experience (Mayer, 2002; 2009; Valadares, 2013). Thus, in a constructivist learning environment, during the educational process, students actively construct knowledge and try to relate it to previously acquired knowledge and experience; as well as develop cognition in real or authentic learning situations. Thus, while learning, students construct individual meanings based on the existing knowledge themselves.

Jonassen and Strobel (2006) distinguish the components of meaningful learning: social, collaborative, intentional, authentic, and active, whereas Kärki et al. (2018) supplement them with the components of contextuality, reflectivity, and transfer. Hakkarainen et al. (2007) emphasize the components of self-directed, emotionally involving, abstract, conversational, multiple perspectives-oriented learning as a meaningful process. Creating an authentic learning environment means that classroom tasks are significant because of the links with the student's personal experiences (Tiilikainen et al., 2019; Kretchmar, 2007; Ní Chróinín et al., 2018).

Moreover, an important aspect of meaningful learning, singled out by researchers, is social interaction, which is based on a dialogical approach. Dialogues between the teacher and students reveal students' thinking (Fleer & Pramling, 2015), perceptions of different phenomena, and the need for different resources in authentic teacher-student interactions (Siry & Gorges, 2020). Every learner already has some knowledge. Therefore, it is important for the teacher to know the child's development and acquired experience in order to build a 'bridge' enabling the student to move from the current knowledge to a new perception, and show ways how to do it (Kegan, 1994, in Ignelzi, 2000).

The emotional involvement of students in experiencing success and failure, pleasant and unpleasant feelings are also significant for meaningful learning (Hakkarainen et al., 2007; Méndez-Aguado et al., 2020). Méndez-Aguado et al. (2020), studying the effect of 10–13-year-old students' emotions on motivation to learn a foreign language, determined that pleasant emotions encouraged learning French, while unpleasant emotions inhibited students' motivation for learning. The joy of learning stems from the experience of success; therefore, according to Rantala and Määttäb (2012), seeking meaningful learning, primary school students should be given an opportunity to choose a task and ways to complete it, to play and create a game, whereas the teacher should stimulate it rather than take up control.

Although many teachers see meaningful learning as an essential feature of education, and researchers analyse various aspects of meaningful learning, few studies have been performed focusing on how primary school teachers create a learning environment that helps students make their learning meaningful. In addition, the literature review reveals that many studies have been conducted outside of Lithuania, and the goal of our study is to eliminate this limitation of current knowledge. Thus, our qualitative research aims at revealing what strategies teachers use to enhance student motivation in order to achieve meaningful learning in primary education, and thus to expand knowledge about the components of a meaningful environment created by Lithuanian teachers.

Motivation is most often analysed and recognised as an important learning condition that can predict learning achievement (Steinmayr & Spinath, 2009; Wigfield & Cambria, 2010). In the article, we rely on the assumption that the teacher, in order to motivate students, creates the conditions, i.e., creates an environment for meaningful learning of primary school students; therefore, learning motivation could result in meaningful learning. To support this assumption, we rely on the Self-Determination Theory (SDT, Ryan & Deci, 2000; Ryan & Deci, 2017), which states that all people are born with a tendency to grow, overcome challenges and integrate new experiences voluntarily. SDT, recognising individuals as proactive (Ryan & Deci, 2017), states that the social environment, namely the classroom environment, can affect students' motivation in two ways – either strengthen or suppress the natural tendencies of students' active engagement and psychological growth. It depends on how well the learner's basic psychological needs of autonomy (an ability to self-regulate and control their actions), competence (high perceptions of their ability), relatedness (a strong sense of connection to others) will be satisfied (Ryan & Deci, 2000). Teachers create the social context and play a central role in meeting the needs of students by supporting their autonomy, competence, and relatedness. Meeting basic psychological needs positively affects motivation and engagement, as they provide energy and direction for students to engage in activities that satisfy these needs. Thus, according to the STD, students' inner desire for meaningful learning is not a self-contained or automatic process (Ryan & Deci, 2017). Teachers create a social context and play a key role in meeting students' needs, supporting their autonomy, competence, and related-

ness. A person is always ready to internalize extrinsic motivation (Ryan & Deci, 2000); however, for this process to be successful, it is necessary to understand the importance of actions and connect their meaning with values and motivation. Thus, recognising that motivation stems from the perceived meaning of the activity, it is possible to claim that motivation occurs when the teacher creates a learning environment that makes the student's learning meaningful. Therefore, in this study, in order to reveal a meaningful learning environment, it was decided not to directly ask teachers how they create a meaningful learning environment, but to find out how they motivate students when faced with challenges, students' reluctance to learn, or by presenting examples of their success in teaching students or getting them involved in learning. Based on the assumption that helping students experience meaningful learning increases their motivation to learn, we raise the following research question: *How does a teacher create a meaningful learning environment for primary school students in order to motivate their learning?*

The results of the study will broaden teachers' understanding of how to create a meaningful learning environment for primary school students, whereas the ways and methods of making students' learning more meaningful and promoting their motivation for learning can be used in the educational practice or analysed in teacher education and development programs seeking to better understand the various aspects of meaningful learning.

Methodology

Research Sample and Procedures

Realizing the importance of constructing personal meaning in organizing learning, we were concerned to find out how teachers work with students, engaging them in active learning and promoting their motivation to learn. The principle of convenient homogeneous selection was applied to the selection of the respondents (Patton, 2015), which allows to illustration of the characteristics of certain phenomena. Teachers working in primary classes (grades 1–4) who met the following two criteria were included in the study: 1) have a qualification category of a senior teacher or teacher methodologist (Mokytojų ir pagalbos mokiniui specialistų (išskyrus psichologus) atestacijos nuostatai, 2008); 2) have at least five-year pedagogical work experience at school. The study involved 8 primary school teachers with teaching experience ranging from 14 to 42 years. Table 1 presents the demographic characteristics of the informants.

Table 1

Information on the Research Participants

Code provided to the teacher	Type of school	Qualification category	Teaching experience
M1	Primary school	Senior teacher	14
M2	Gymnasium	Senior teacher	18
M3	Progymnasium	Senior teacher	25
M4	Primary school	Teacher-methodologist	24
M5	Progymnasium	Senior teacher	21
M6	Private school	Senior teacher	42
M7	Progymnasium	Teacher-methodologist	40
M8	Primary school	Senior teacher	30

The study participants were informed about the purpose of the study and the use of the collected data. Written agreements were obtained from the participants informing them of the possibility to terminate their participation at any time, as well as that the submission of the research data would not allow the identification of the teachers involved in the study. Presenting the research results, the teachers were given codes (M1–M8).

Data collection. The focus group method was used for data collection, which allowed for the revelation of the scope of the selected research problem and to gain valuable knowledge about the participants' concepts and ideas within the chosen research question, as well as the highlighting the diversity of attitudes of the research sample (Bojlén & Lunde, 1995). The main advantage of focus group data collection is that it allows access to social interactions and the way in which meaning is "negotiated" in context, which means that the participants' accounts need to be considered in context (Braun et al., 2016). The active interaction of the research participants and the discussion that emerges from this interaction reveal detailed insights into the participants' experiences, perspectives, beliefs, and behaviours (Gill & Baillie, 2018). Semi-structured interviews were used for data collection and were based on open-ended questions and statements that were sought to be discussed. In order to encourage teacher interaction, discussions were allowed to develop in the direction of the teachers' own responses. The focus group interviews were conducted by three researchers, the authors of this article, one of whom moderated the interview. The moderator's task was to ask key questions and create a benevolent and open atmosphere in which participants could express personal and controversial opinions. Other researchers who participated in the discussion were engaged in the interview by asking clarifying or additional questions. In our research, we relied on the assumption that helping students experience meaningful learning increases their motivation to learn; therefore, the focus group interview questions in solving the main research question were directed at finding out what strategies teachers used to motivate

students and what helped them engage students in learning: The main questions given to the participants were, for example: *What is the most difficult thing about teaching children when they are unmotivated? What do you do when a student tells you they don't want to learn? What examples of your successful experiences could you provide when a student was unmotivated and you were able to get them involved in learning?*

Audio recordings were made during the Focus group interviews, which were later transcribed by the researchers and prepared for analysis in a separate file in accordance with confidentiality and anonymity requirements.

Data Analysis

The method of inductive qualitative content analysis (QCA) was used for data analysis (Drisko & Maschi, 2016; Bingham & Witkowsky, 2022). QCA, as a method of analysing verbal and written information, allows one to describe phenomena and draw reasonable conclusions by revealing the contextuality of a phenomenon (Krippendorff, 2004). The qualitative content analysis focuses on categories or themes that summarize the content of the entire data set and highlights key content (Drisko & Maschi, 2016). During the focus group interview, which lasted 150 minutes, we used two recording devices. The interview was transcribed verbatim shortly after it had ended. The text was analysed according to the steps of qualitative content analysis: open coding, data clustering, categorization, and abstraction (Elo et al., 2014; Drisko & Maschi, 2016). When performing QCA, the transcribed text was examined sequentially, inductively separating semantic units (phrases, sentences, or paragraphs) that were encoded and grouped into subcategories. The subcategories were grouped by meaning and abstracted into qualitative categories, and they were used to form only one category. Subcategories help to structure the description of each category and also provide more information and details (Drisko & Maschi, 2016). The goal of coding in qualitative content analysis is to describe the meanings and actions of research participants and texts. Data analysis was based on constructivist epistemology, which seeks to theorize sociocultural contexts and emphasizes the perspective and active role of the researcher in interpreting the data (Schreier, 2014).

Before starting the analysis of the research data, the researchers first discussed the main steps of the analysis and the coding rules. Later, working separately, reading the transcribed texts several times, the researchers singled out semantic units and assessed their suitability to describe the phenomenon under study, formulated the initial descriptive categories, and then discussed them together until the final qualitative categories were formulated and interpreted. The authors agreed on every single quote in coding to subcategories and the categorization into main qualitative categories. Table 2 illustrates an example of the analytical process. The coding and categorization were agreed upon, taking into account all transcriptions. Thus, the credibility of the research was ensured by the researchers acting as a team, discussing and comparing the extracted codes, and

agreeing on the appropriateness of the final formulations of the thematic categories. The coded categories were intended to be credible, authentic, and persuasive to readers of the qualitative content analysis. By accurately reporting the qualitative content analysis process, we ensured the trustworthiness of the research. In assessing the quality of this process, Elo et al.'s (2014) 'checklist' for researchers attempting to improve the trustworthiness of a content analysis study was helpful.

Table 2

Example of the Data Analysis

Interview excerpts	Reduced citation	Subcategories	Thematic categories
Apologize. Yes, yes, it is very important. It is again, as we say, the social competence of the teacher. Awareness of ICT and subject knowledge is important, yet crucial is the social competence of a teacher. If a child hears from a teacher, "I'm sorry for doing something incorrectly, or the like", it will be easier for a child to apologize to another. We show them examples.	Apologize. Yes, yes, it is very important. It is again <…> the social competence of the teacher. <…> If a child hears from a teacher, "I'm sorry for doing something incorrectly, or the like", it will be easier for a child to apologize to another. We show them examples.	Recognition of a teacher's personal mistakes.	Demonstration of a teacher's personal example
If I don't know anything, it's normal to tell students, "I'm sorry, I can't answer you today. I will inquire and find it out, and then I will tell you". You shouldn't pretend to be God.	*If I don't know anything, it's normal to tell students, "I'm sorry, I can't answer you today. I will inquire and find it out, and then I will tell you".*	The teacher's recognition of own ignorance and sharing personal experience.	
And the children like it and they are affected when they find something out about me. In my teaching practice, I often tell the students about my experiences, and what positive and negative things I went through. And not only at this age, but also when I was a student.	*I often tell the students about my experiences, and what positive and negative things I went through. And not only at this age, but also when I was a student.*		

Results

The teachers who participated in the study revealed their personal experiences in creating a meaningful learning environment that promoted students' motivation. During the inductive analysis of the research data, 5 thematic categories were distinguished: 'Escorting' students to the experience of success and joy; Recognition and nurturing of students' individuality; Demonstration of a teacher's personal example; Creating social interactions in the classroom based on student collaboration; Working together in different environments. The subcategories of each distinguished thematic category will be further presented and their content revealed.

'Escorting' Students to the Experience of Success and joy

Clarifying the reasons for students' reluctance to learn. It is very important for teachers to find out why a student is reluctant to learn, as well as to discuss and plan with students how to eliminate these reasons together. According to the teachers, it is particularly important to recognise whether the reluctance to learn is situational, related to a certain situational state of the student, or whether it is a general tendency and attitude of the student toward learning. One teacher maintains: *Children usually say this (author's note: "I don't want to learn") about some educational subject; they don't talk about all of them. One of my fourth graders once said he didn't want to study. <...> and then clarified that he did not want to learn Lithuanian [M2]. According to another teacher, sometimes these are the simplest physical needs when the student is hungry [M1] or the child claims that he/she is tired. Then we agree that they will rest for 5 or 10 minutes without disturbing others, and then finish the tasks [M5].*

Reluctance to learn can be related to problems in the family; therefore, according to the teacher, it is important to solve this problem involving the parents:

> *The student told me that he did not want to learn <...>, I asked why? He said something incoherently, I didn't understand. I asked him to write three reasons, well, why he didn't want to learn on a piece of paper. He was sitting for a long time and managed to write only two things: that his parents were having rows at home and that he didn't understand anything. I had to invite his parents and talk to them all together [M2].*

Students' attitudes can be influenced not only by the experience gained at school but also outside it. Therefore, the teachers claim that it is necessary to give the child an opportunity to express their opinion: *how would you like it to be <...> so that it is more fun [M5]* since after getting to know the student better, the teacher would quickly find ways to interest the student relying on their areas of interest and what is relevant to them.

The teachers also associate the reasons for reluctance to learn with students' different abilities: *One thing is that when a child is gifted; they will say that the subject is boring because it does not comply with their abilities. Yet, a different thing happens when we talk about students who have learning difficulties. Why aren't they interested? The reason is*

that they don't understand. Automatically, they lose interest and want to do something different [M3].

A common reason for the reluctance to learn is related to not understanding the task: *not understanding something and getting 'stuck', for example, missing a topic due to not being in class. That lagging behind the classmates is very demotivating, <...> then I try to break up the workload over a longer period of time [M1].* However, the teachers admit that students often declare that they do not understand the task without even going into the wording of the task. Therefore, a detailed explanation, linking the content of the subject to the student's experience or knowledge, as well as encouraging the student to inquire are highly significant: *For instance, a student did not understand how to solve a textual mathematical problem. And the rejection reaction emerges right away – I don't want to learn. And this happens quite often. But when they find out how to complete the task, the desire arises [M4].*

Support for the student to overcome learning difficulties. The goal of support for learning is to effectively help students with different abilities, needs, and motivations to overcome learning difficulties and ensure their effective learning. In order to help the students to overcome difficulties and to facilitate the learning path of those experiencing difficulties, the teachers themselves provide help by working directly with the student, inviting other students, or using their examples.

According to teachers, the most important thing in motivating students to learn is to allow them to experience success and to note this success. As one teacher claims, the teacher's incentive for putting in effort motivates the students a lot: *I judge from my experience, I have noticed that every student, even the most unmotivated, gets involved in learning when they feel successful. So, when I notice even the smallest progress, I praise orally or in writing, I also put a motivational stamp with the inscriptions "Thank you for trying", "Well done", or "I'm proud of you". When I talk to parents, I also emphasize success [M4].* According to the teachers, it is important to create such learning situations that enable each student to succeed; thus, it is particularly important to identify any gaps or difficulties in the student's learning, and help to overcome them:

> *<...> It is very important for a child to feel successful < ...> a child did not like art <...> imagine a child came from kindergarten and did not know how to cut, <…> what did we do? – we made copies of pictures and started cutting together [M2];*

> *<...> I try to prepare such tasks for the lesson so that I could participate myself and be in a pair or group with the child who lacks motivation [M8].*

One research participant notes that sometimes it is important to give students time, not to force them, to encourage them, and establish a relationship with them: *I was a new teacher for the girl, she looked at me very cautiously, opposed everything I said or asked, etc. <...> I think my luck was that I didn't force her, but I was looking for ways to make friends every day. And later we worked together to achieve small 'victories', e.g., it was necessary*

to write down a sentence without errors or, say, to solve a problem. The child really needed some incentive and encouragement [M1].

The teachers also recognise the importance of other students, who are able to complete the task properly, and the help provided for a student with learning difficulties: *A common practice in my class is helping a friend. Those who completed the tasks faster, become my assistants. They are really happy to help if someone is having a hard time [M4]; help given by an able child nearby. It also matters how you organize your work. So that he/she is not left alone with his/her problems [M7]*. In addition, it is important to discover the learning difficulties with the students themselves and then render support: *If the child does not understand anything, they do not want it. It would probably be a task for the teacher to find out what they do not understand and to offer help; i.e. to find out what they do not understand together and then that desire should arise automatically [M4].*

As one teacher observes, one of the most effective ways to motivate a student to learn despite difficulties is to use the examples of other students:

> *Students are most motivated by the examples of other children, so I present them with real stories of my former students, and sometimes I embellish them a little. For example, one of my current first-graders had a very hard time learning to write, she couldn't see the lines at all, and she connected letters into words anyhow. I told her an example that I had one student who was also very unsuccessful and wrote badly in the first grade. And what do you think? In the third grade, she became the winner of a handwriting contest. That example inspired the girl greatly, and today, she is able to write; yet, her handwriting really does not stand out from the others. That girl kept asking me to give her the assignment to write some letters or words in her spare time, and she asked me to do the same for her homework. That's it, her hand has been trained, and she doesn't need to learn additionally anymore [M4].*

According to the teachers, it is very important to facilitate the difficult learning path for students who experience learning difficulties and find ways for them to experience success and the joy of learning.

In the learning activities of primary school students, the game is recognised by all the teachers as one of the main learning methods that help students to acquire new knowledge and skills, as well as allows them to experience the joy of learning. When a student is having difficulty learning or is uninterested in the subject, it is important to figure out what the child likes and get them involved in enjoyable activities and games: *<...> I'm not telling them it's going to be an uninteresting thing; I try to come up with such tasks that they don't feel the difficulty and spontaneously get involved in the offered form of playing through the interesting task [M7].*

The teachers notice that by integrating different subjects, students with learning difficulties engage in activities and successfully complete tasks, which they may have found too difficult or uninteresting: *"And what do you like?" I would ask. If, say, they don't like*

math, but like, for instance, world cognition; I'd offer to try those unpopular tasks alongside with the things they like, like world cognition [M7].

The teachers themselves develop teaching tools to engage children; meanwhile, they realize that the same tool or method may not be suitable for all students. The teachers believe that the tools developed by them to integrate the 'unpopular subject into the favourite one' and the organization of teaching in the form of a game allow the students to love the subject imperceptibly and discover the joy of learning: *This is where subject integration comes into play. And in the form of games, <...> now I have just created one tool <...> a child playing and integrating the favourite into the unpopular will start imperceptibly liking it, too [M7].*

Emotional provocation. The teachers note that in order to engage or direct students to purposeful activity, it is necessary to act in such a way that the teacher's behaviour is unexpected, emotionally arousing, and surprising for them, or to give them the opportunity to become the teacher. Teachers can influence students by personal example and engage them in purposeful activities in order to achieve learning goals. A teacher provides an example of how elements of acting have been used to help students develop elocution skills:

> *We read stories with children. They all read monotonously <...> I tried to read with full expression, with all body movements and gestures. Their 'jaws dropped': "Teacher, can we try now? We want to try." <...> They got involved and now I have no problems reading. They are literally learning. And I felt that while they were acting they realized what expression is, and what I want from them at all [M8].*

One teacher claims that if the student is not involved in the activity, she sometimes uses the following method: *I tell him – I let you not learn, I let you do nothing. And then, this surprises the student so much that little by little he starts to get engaged, starts to get involved in the lesson. Well, of course, I use this method very, very rarely [M1].*

In order to encourage students to be active participants in the learning process, the teachers offer them the opportunity to get into the '*teacher's shoes*', i.e., not only to search for or use the specified information but also to select, structure and publicly present it while in the position of a teacher. Although the role of the teacher is binding, the examination of a certain topic from different perspectives allows the student to be independent and to present the topic based on their experience. At the same time, they are provided with the possibility to hear peer presentations, in which the information provided can be more easily linked to one's own, simply because it is provided by a peer.

Students are actively involved in the learning process when the teacher gives them an opportunity to exchange roles with the teacher:

> *We had an interesting topic – 'The Continents'. The children distributed the topics: some presented about the flora, others about animals, and still others about the people and their way of life. It is very important to sit in the teacher's chair, and the teacher takes*

the place of the student; thus, everyone is engaged, not just the one who gives a presentation<...> but everyone else is also involved [M7].

Giving freedom to the implementation of students' ideas. The teachers realize that the identified student interests can be used for learning purposes seeking to increase their engagement in learning and reduce teacher dominance: *I was hardly needed. In fact, these presentations led to the creation of a video, because I heard that someone, trying to do something, started using a programme to create some kind of <...> videos, and finally created a lot of great presentations [M8].*

Students find a variety of ways to express themselves and enthusiastically engage in group activities, which meet their interests: *In the fourth grade, they came up with the idea that they wanted to create a history rap for the concert to celebrate Independence Day. And in fact, they created a history rap themselves. One father even recorded the music. And there was even one rap dancer in the classroom, who danced [M4].*

One teacher notes that it is important to encourage students to record important knowledge and accumulate personally important information when learning. This promotes the engagement of all students in learning, thereby making the acquired knowledge personally valuable:

> *In my class, the children have such notebooks where they, say, present some things. They are writing about Australia, wildlife, and cling. Nobody is sitting and daydreaming <...> In that notebook, they record the main points. Well, I've had those notebooks for many, many years. And the children consider them as a value – "I have something here, I accumulate something here, here I ...." [M7].*

Recognition and Nurturing of Students' Individuality in Teaching

Setting individual goals for each student. The teachers are aware of what they are aiming for when educating students, they understand the importance of setting individual goals for each student; therefore, when setting educational goals for/with the student, they take into account students' abilities and personal experiences. The teachers admit that students with different needs and abilities are incorporated together in one class: *all students are different, so I constantly hear that one likes to write, could study only Lithuanian all day long, while another prefers mathematics, etc. [M1]; in the first grade, from the very first day when students come together, all of them are individuals. This is very clearly visible: behaviour, speech, character traits, communication, etc. [M2].* Thus, the teachers maintain that it is important to set individual goals taking into account the student's age and individual characteristics *because the goals cannot be set for everyone [M6].* The teachers recognise and acknowledge the differences between students and, in this context, try to formulate individual learning goals:

> *There are students who consider the goals we set as the formation of positive behaviour, e.g., one boy uses swear words when speaking. We talked. And during the conversation,*

he set himself a goal to control his speech, not to use swear words, those unacceptable words [M4].

Every child is different <...> we are happy that one student has managed to concentrate, and another – to do something, whereas for another the best result is that they have already achieved certain learning outcomes. It is actually unrealistic and impossible that at the end of the school year all children perform in the same way [M6].

The teachers set themselves the goal of helping students discover their abilities and feel unique: *<...> so that each student would discover what ability they could develop: one in world cognition, another in art, still another in mathematics <...>; so that everyone discovers themselves – feel like "I'm the only one and unique, I am a star"; so that they feel like a star, <...> to make them happy [M7].*

The research revealed that some teachers formulate individual educational goals together with the students: *we learn to set individual goals together when we analyse the completed tasks and what mistakes are most common, e.g., learn to write short sentences without mistakes; learn to read a short text without syllabifying; learn to use a ruler, etc. [M8].*

The teacher believes that when setting goals, it is very important that they are clear to the students and provide clear instructions on how they will attain it:

I try to involve the students in setting the objective of the lesson. I usually start the lesson with intrigue, so that the students can guess the topic of the lesson. Then the students express what they can refer to in the lesson, and how to work – individually, in pairs, or in teams. I specify and present how we will check and evaluate the acquisition. For example, pictures with the sun and a girl, with an oak tree and a boy. The question is: what connects the pictures? The guess is that the girl's name is Saulė (author's note: the sun in Lith.), and the boy's name is Ąžuolas (author's note: the oak in Lith.). The topic of the lesson is proper nouns. The students guess that they will rely on their experience, textbook material, and the teacher's explanation. Next, it is clarified how we will work in the lesson – in pairs and individually. Then I announce that the students will complete 2-4 tasks of consolidating proper nouns and evaluate themselves by steps [M4].

The goals are revised in accordance with both the changing needs of a student and the whole class: *The goals differ from grade to grade: in the first grade they focus more on social aspects, in the second grade, there are other goals, whereas in the third and fourth grades they are different again [M2].* In addition, the teachers note that setting learning goals depends on the students in a particular class: *Each time there will be different goals in one student flow, and different goals in another flow, because every time the children – the students that come together are different [M7].*

Individualization of tasks according to students' abilities. The possibility for students to choose tasks is one of the most significant ways of individualizing the curriculum. Individualization of tasks according to student needs and abilities brings the learning content closer to the child's experience, which allows expecting the student's success and motivates them to take further interest in the analysed issue and put in more effort.

According to the teachers, when individualizing tasks, it is important *to allow them to work at their own pace <...> to allow them to choose tools and ways to complete the task [M4]*.

It is important for the teacher to recognise the different abilities and needs of the students and to respond by assigning individual tasks:

> *Some students came to the first grade able to read fluently, while others are just learning to combine sounds into syllables and words. Some already count up to 100 by heart, while others can only add and subtract within ten, and only by bending their fingers... It is really very important to differentiate tasks. The most difficult thing for me is that the gifted are not bored and the tasks are not too difficult for others [M2].*

> *Higher level children were able to solve 5–6 pages per lesson and others 2–3 lines with my regular 'pushing them on' [M3].*

One teacher points out that it is important to explain to students why different goals and requirements are set for some students, such as those with special needs:

> *"Why can she skip the task? <...> Why does she do only a half and I have to do everything? We both have the basic level", but I say that I judge by the achievements that he gained from his starting point <...> And before I told the children <...> the girl got sick. You know, the children stopped looking at that child differently, they accepted her and helped her because they began to understand why she was different, why she behaved differently [M5].*

Demonstration of a Teacher's Personal Example

Recognition of a teacher's personal mistakes. The teachers admit that in seeking the students' willingness to learn and participate actively in the learning process, it is important not to be afraid to recognise themselves and show their 'imperfection' to the children. It is noted that teacher behaviour is important not only for achieving learning goals but also for developing relationships. The example of a teacher influences the development of students' social competencies. The teacher's ability to admit their mistakes and apologize to the student helps the student to apologize and take responsibility for their own actions: *Apologize. Yes, yes, it is very important. It is again <...> the social competence of the teacher. <...> If a child hears from a teacher, "I'm sorry for doing something incorrectly, or the like", it will be easier for a child to apologize to another. We show them examples [M2].*

The teacher's recognition of own ignorance and sharing personal experience. The teachers claim that sharing their personal experiences, and acknowledging that even adults may not know or be unable to do something helps the teacher to establish warm mutual relations and increase the engagement of students in activities without fear of making mistakes. The teachers understand the importance of being able to acknowledge that they may not know anything: *If I don't know anything, it's normal to tell students, "I'm sorry, I can't answer you today. I will inquire and find it out, and then I will tell you" [M3],*

and sharing their personal experiences: *I often tell the students about my experiences, what positive and what negative things I went through. And not only at this age, but also when I was a student [M2].*

The teacher's sharing of personal experiences especially helps students to overcome their fears and mistrust:

> *Sometimes I present moments from my life. For example, I tell them how, as a first grader, I didn't understand word problems at all. And then I demonstrate how that 'enlighten-ment' came to me: I say, when I was reading the condition of the task, I imagined that I was watching a cartoon, and I noted down the most important things, say, what? how much? what to find out? as if I was creating a scheme. And then the solution dawned on me, well, it came just by looking carefully. I think that this example of mine has helped more than one student to overcome the fear of word problems. And they used to believe that everything could be overcome [M4].*

The teachers also use the strategy of acting together in order to show by personal example that everyone can fail, including adults: *I still get involved with children in joint activities. They are happy to see that the teacher works together with them, and it turns out that even I, as an adult, do not always manage to do the assigned work properly and correctly [M2]; I show them my failure, sometimes an artificial one, and ask them to help me. It's like we're swapping places. Sometimes it 'works' and sometimes it doesn't...[M1].*

Creating Social Interactions in the Classroom Based on Student Collaboration

Encouraging and stimulating students to collaborate. In the educational practice, the teachers encourage student interaction by addressing learning objectives:

> *From the first days of the school year, my first-graders sit in groups in the classroom. I change the seats every week so that they get to know all the children in the class better and learn to adapt to each other. And also, to complete team tasks. They very often complete the tasks in pairs, exchange their tasks to evaluate their friends' work, or make sugges-tions <...> During the reading group, first-graders cooperate in pairs, read texts to each other, and also ask questions [M4].*

> *I train third-graders to work in teams and to complete long-term projects of 3–4 weeks. They don't only cooperate during lessons, I also see them communicating during the breaks, and they say that they consult each other both virtually and by e-mail. [M4].*

According to the teachers, the social competencies acquired during joint activities are highly related to the success of the students' learning; therefore, it is important to encourage them to cooperate and act together when solving tasks. It is especially important not to leave a student with learning difficulties alone to solve problems: *The encouragement*

"let's do it together" <…> leads to the understanding that doing it together means doing it more confidently, and that the 'wolf' is not so dangerous [M7].

Organization of experiential activities seeking to accept the otherness of classmates. One teacher claims *that the most difficult thing is for children to recognise the individuality of their classmates [M2].* It is important for the teachers that students accept the otherness of people with disabilities not as a *stigma* but as a 'natural' trait; therefore, they organize experiential activities in the teaching process:

> *You cannot tell children that someone is autistic, you cannot name it. But they ask you. If you explain it in the right words, <…> like my Auksė's, who has cerebral palsy, mother came and played with the children in the lesson, and prepared a tool for the children to understand what cerebral palsy is. She asked the children to put on thick gloves and asked them to collect small peas <…> or, for example, tied a band to their feet and asked them to try to go [M3].*

The teachers note that the curriculum *includes many topics related to how to accept human individuality. It helps a lot. And then children learn to recognise the individuality of their friends, what is unique and special about them. Well, they learn how to be happy for each other, and try to understand why a friend did exactly this or that. We try to make them experience it in practice and put themselves "in someone else's shoes" [M2].*

Working Together in Different Environments

Presenting real examples to show the practical applicability of the subject. The teachers recognise that in organizing learning, it is important to show students the attractiveness and practicality of the subject: *The child says, "Why do I need to learn to calculate an area? I don't need it. Why do I have to?" Then you start explaining that, for instance, you go to a shop and need to buy wallpaper. What will you do? The child then begins to think that he needs to learn to calculate the area [M6]. I used the example as well. But the child says that the workers do everything and count everything and he doesn't have to count himself. I then I tell him, "Yes, but you still have to know what you're paying for and this is how I convinced him that he really needs to know himself, to be able to calculate exactly himself. You can trust, but you need to check [M5].*

Linking the content of the lessons to real, child-friendly contexts helps to engage them and enables them to look for opportunities to continue working independently. One of the teachers notes that it is important to develop children's practical learning skills during lessons, and for this reason, she exploits learning environments outside the school: *In non-formal settings, you can encourage children to make hypotheses and find ways to prove them [M7].*

Another teacher notices that students do not always see the applicability of the subjects, which leads to their losing interest in learning. Such students' questions as "*Why do I need it?*" encourage the teachers to create such learning contexts, in which children

can see the applicability of new knowledge in the future, allowing them to make their learning meaningful: *Modern children often say, "It's not interesting" since they do not see the purpose of it. They often ask, "And why will we need it?" And then you have to prove to them why we sometimes need to learn uninteresting things... [M6].*

Employing learning environments outside the school by integrating the knowledge of different subjects. The teachers note that they use different learning environments in their practice when organizing the teaching process. Learning outside the school not only enriches the curriculum, but also allows the teacher to integrate the knowledge of different subjects (e.g., world cognition and mathematics): *Or a different space will be chosen – not at school, but somewhere else, and it will seem different <...> so that they can put the gained knowledge into practice. Let's take the area as an example. We have a huge park <...> I want to say that you can have a lesson of maths in the park and the kids can measure the area of the tree. It includes both subjects – world cognition and mathematics, and drawing diagrams [M7].*

The use of spaces close to the school gives students the opportunity to test and apply knowledge in practice, as well as to discover the diversity of knowledge applications with regard to the knowledge, experience, or interests that students have. The use of other learning spaces allows a child to experience learning in a different way than usual.

Teachers organize education in different environments (laboratories, after school, going to nature), where students have an opportunity to develop research skills, as well as are encouraged to ask questions and find answers: *I am interested in research activities, I participate in the activities of a non-formal education centre <…>In a non-formal environment, I try to encourage children, for example, to make hypotheses, to look for ways to prove them <...> After such a project, I have a laboratory installed for my world cognition lessons [M7].*

Involvement of the family in the development of communication between students, parents, and the teacher. The teachers, who participated in the study, provided examples of a successful learning organization where the completion of tasks encourages family involvement and collaboration. The teachers note that students *are still very eager to interact closely with their parents, invite them to celebrations, and we put a lot of time and effort when preparing for family celebrations [M4].* The teachers mention various events that involve family members: *a cafe; a history rap for a concert to commemorate the Day of Independence; kite hanging; wind trapping; blowing huge bubbles outside, get-togethers,* and others. Organizing joint events with family members involve children in activities and, according to the teachers, helps solve communication problems and develop relationships. Organizing teacher-initiated joint activities with parents or classmates, giving students freedom and responsibility in preparing and organizing an event, bringing students together, encouraging their initiative and activity, encouraging independence, and allowing them to experience the purport of the activity:

I invented a cafe where children counted the money, prepared meals, cooked, bought products, made everything in the classroom, prepared gifts for parents, siblings and cousins – everyone according to their age. The children were the waiters themselves, they worked hard, and they treated their parents well. And I noticed that it was not only fun for them to do everything themselves, but it also improved communication [M4].

Moreover, the involvement of family members in-class activities, as well as the organization of joint activities or events are based on the unique, real experiences of students and their parents. By participating in such joint activities, students get to know the interests and cultures of other families:

We decide to have a get-together, and then we find out that, say, some families play music, others, maybe dad or mom, can do ballroom dances. This way the families introduce themselves. I remember one such family – the daughter was playing the kanklės, the mother was playing the accordion, whereas the father and the son were singing. Yet another family – both parents were doctors – presented the Tale of Love, read in roles –the son, the father, and the mother – and then shared their wishes with others [M7].

Discussion

The qualitative research aimed to reveal how a teacher created a meaningful learning environment for primary school students in order to stimulate their motivation for learning. All five thematic categories singled out from our research data reveal that the environment created by teachers to motivate students was characterized by many features of meaningful learning. In order for students to acquire meaningful, i.e., personally significant/valuable, learning experiences, teachers should create an environment in which students are active, learning goals are clearly formulated for them or formulated by themselves, and students construct their knowledge and understanding while learning by collaborating and reflecting on their experiences and performing authentic tasks connected to real life contexts (Jonassen & Strobel, 2006; Hakkarainen et al., 2007; Kostiainen et al., 2018).

One of the important findings of our research is discovering that teachers when motivating students and aiming to make their learning meaningful, hold a belief that an active student is at the centre, whereas the teacher merely helps them to set a goal and achieve it at their own pace and in different ways. The study demonstrates that the experience of success is considered an essential motivating factor that allows students to feel the joy of learning and to strengthen their self-confidence. This finding complies with the findings of Rantala and Määttäb (2012), who, highlighting the factors that enhance students' joy in learning, distinguished the experience of success as one of the most important factors in the learning process.

Moreover, the findings of our research show that in order to make learning meaningful, it is especially important to 'escort' the student to success by overcoming learning difficulties, when a teacher advises, supports, and helps a student experience success in learning. It appears that it is important for teachers to recognise whether the encountered difficulties are related to the negative experiences of the students, whether they appear due to the lack of understanding of a task, or the students' insufficient engagement in the activity. This allows teachers to show their concern for the student, establish a warm relationship with them, and also understand the reasons for such difficulties. Only after that can the teacher provide effective measures to help the student. In addition, it creates an interpersonal connection, which is very important in discovering the value of learning for oneself, since the student feels supported by the teacher, with whom they create personal meaning in learning. In order to motivate students, the teacher should encourage their belief that they have the potential for success (Bojović & Antonijević, 2017; Koca, 2016). It is important for students to realize that their learning success is related to a combination of sufficient skills and reasonable effort (Bojović & Antonijević, 2017).

Our research data demonstrate that in creating a student-centred learning environment, teachers use motivational strategies that engage students in active activities, which are considered to be one of the features of meaningful learning (Jonassen & Strobel, 2006; Hakkarainen et al., 2007). Meaningful learning focuses on what different phenomena mean to the learner, and in the course of such activity, learners are constantly developing interpretations of their actions and the results of those actions (Jonassen & Strobel, 2006). According to the constructivist theory of learning (Mayer, 2002; 2009; Valadares, 2013), activity is understood as a continuous intellectual effort to develop one's understanding by constantly linking the existing knowledge and experience to new learning experiences. Thus, students develop their meaning by active engagement and creation of what they know. Therefore, in seeking to make students' learning meaningful, it is important for a teacher to apply such teaching / learning strategies and create such contexts that would empower the learners.

Our research data reveal that evoking students' emotions is important in engaging students in learning. The study shows that an effective strategy for motivating primary school students is an emotional provocation that causes students to be surprised by the unexpected behaviour of the teacher or the delegation of the teacher's role to students. Evoking unexpectedness and positive emotions increase students' interest in activities and helps them actively participate in the learning process, which gives them a greater opportunity to experience the joy of learning. Our research findings confirm the conclusions of the studies conducted by Méndez-Aguado et al., (2020), Kostiainen et al., (2018), which demonstrate that in order to motivate students and create meaningful learning experiences, it is important to experience both positive and negative emotions while learning; then learning becomes more personally meaningful to the learner. Thus, it is important for teachers to understand the relationship between the teaching and learning

process and emotions since the emotional aspect influences students' performance and achievement.

Our research findings reveal that teachers create a learning environment where students are encouraged to come up with their own ideas and are given enough freedom to implement them independently. Teachers succeed in engaging students in activities that are in line with their interests when they come up with ideas themselves, and when they are able to implement them on their own. Meeting the need for autonomy is recognised as one of the most important components of the educational environment that develops students' motivation for learning (Bojović & Antonijević, 2017; De Meyer et al., 2016; Ryan & Deci, 2020). Bojović and Antonijević (2017) have determined that primary school students highly value self-determination, i.e., the sense of freedom in getting engaged in interesting and important activities. The authoritarian teaching style does not create opportunities for students to experience the joy of learning since joy is related to freedom, which means that the teacher recognises the freedom of choice, autonomy, and self-determination, as well as provides the opportunity for safe choices for the student (Rantala and Määttäb, 2012). According to Filgona et al. (2020), the role of teachers in motivating learners cannot be overestimated, but if the environment created by the teacher is aimed at satisfying their basic needs, students would become more motivated and their academic achievements would increase. Rantala and Määttäb (2012) note that the teacher's support should not be too high; it is important that the teacher applies such learning methods that enable the student to achieve partial learning goals with little teacher intervention because smaller achievements act as catalysts for achieving larger goals.

Our research reveals that in creating a meaningful learning environment, it is important to recognise and nurture students' individuality, set individual goals for students, and allow students to achieve them at their own pace and in different ways. Polman et al. (2021) highlight that in seeking to make students' learning meaningful, teachers set learning goals on their own or with students, which is also recorded in our study. Polman et al. (2020) have determined that primary school teachers recognise that setting learning goals motivates students, creates expectations for what skills students will acquire or what specific problem they will learn to solve, helps students understand how to achieve a learning goal, and evaluates their learning process.

Our study highlights the power of the teacher's example to increase student motivation. A teacher's acknowledgment of own ignorance by demonstrating a personal intention to learn can help students understand that knowledge expands if they are interested and searching for information. This position of the teacher, provided it is not permanent or very common, 'brings' students closer to the teacher and can help build a warm relationship. The teacher's sharing of personal experiences and recognition of personal mistakes also contribute to the creation of such relationships. Thus, our findings support (Kostiainen et al., 2018) the conclusion that the teacher's sharing of personal experiences and life stories is very important for students, as it helps to create an atmosphere of trust,

which is necessary for a meaningful dialogue in the learning process. It is important for students to experience a warm relationship with the teacher as it plays a key role in encouraging children to learn and adapt to school (Koca, 2016).

The findings of our research demonstrate that in creating a meaningful learning environment, it is essential to seek cooperation and interaction among students, both in the classroom environment and in other environments. The teachers note that when students are encouraged and motivated to collaborate, solve problems related to real-life contexts, and simultaneously experience learning success, student engagement and activeness increase. Thus, group activities and collaborative learning are recognised as highly effective tools for meaningful learning, since working in groups, learners have to agree on the task, choose the methods they will use to complete the task (Jonassen & Strobel, 2006), share their experience and to develop their own experience (Keramati & Gillies, 2022; Kostiainen et al., 2018; Polman et al., 2021; Vallori, 2014). Collaboration enables students to utilize each other's skills, feel a sense of social inclusion, and provide each other with social support (Hakkarainen et al., 2007).

The findings of our study demonstrate the teachers' understanding that learning can be uninteresting for a learner if they do not see its practical applicability; therefore, the teachers aim to demonstrate the practical applicability of the subject and relate it to the real and familiar modern contexts or present its applicability in future contexts. Hence, our research resounds the findings of other researchers that experiential learning and learning experiences that students can apply beyond the school environment promote meaningful learning (Beni et al., 2017; Polman et al., 2021). Tasks that arise from an authentic context or are at least simulated are considered meaningful, and then students not only have a better understanding of the problems to be solved but also easier transfer them to new situations (Jonassen & Strobel, 2006). Polman et al. (2021) have determined that primary school teachers consider experiential learning as an important context for students' meaningful learning of mathematics. Mehmet et al. (2013) argue that students are better involved in learning that takes place in the real world, outside the classroom. This allows students to try things they have not tried before, as well as help them better understand the surrounding environment.

Our research shows that it is important to refer to real-life contexts when motivating students and creating a meaningful learning environment, so teachers often involve parents in educational activities. Working with family members is based on the unique and real social and cultural experiences of students and their parents, which makes learning authentic, contextual, and more inclusive, making it easier for the learner to discover the meaning of learning. In our opinion, these findings are significant and contribute to the concept of a meaningful learning environment for primary school students with the data on the importance of parental involvement in strengthening the personal meaning/value of learning for the student, as we have not found this aspect when reviewing research on creating a meaningful learning environment for primary school students.

Personally-meaningful learning is made up of a variety of process characteristics and can be enhanced in various ways, including through the involvement of family members in the educational process.

In our opinion, it is important to note that students interact with the environment and create their own interpretation of the world, they are not mere recipients of the information transferred by the teacher (Jonassen, 2002). It is recognised that the meaningfulness of learning is related to the meaning that the learner attaches to learning; hence, the teacher must constantly encourage students to reflect on their experiences, and the content they have learned, as well as help the learner recognise what is valuable to them. In addition, it is important for the teacher to be open to different approaches to meaning-making and to apply a variety of teaching methods that include experiential data collection, as well as to guide the educational process without imposing goals based on their own experience. The data collected from our research participants do not elucidate that the teachers considered reflection as a component of a meaningful learning environment that is important for increasing students' motivation for learning. However, in order to create a meaningful learning environment, it is important to encourage students to reflect on their own experiences and newly acquired learning experiences, as the creation of personal meaning is unique.

It is noteworthy that creating a meaningful learning environment can be done in various ways and methods, yet it is important that they are focused on the student and aim to make the learning experience personally significant for the student. According to Johansen and Strobel (2006), the characteristics of meaningful learning are interrelated, which means that learning and teaching activities should incorporate and support a combination of active, constructive, conscious, authentic, and collaborative learning, as they work in a synergetic way (Jonassen & Strobel, 2006). Thus, learning becomes meaningful if the learning environment is created in such a way that not a single feature of meaningful learning, but rather a combination of them, is manifested in student activity.

Conclusion

With this study, we aimed to contribute to the students' insights into the meaning of learning of primary school students by analysing the teacher-created learning environment, which helps to motivate students to actively engage in educational activities. The meaningful learning environment created by teachers is student-centred, so teachers primarily seek to understand the needs of students, find out the reasons for their reluctance to learn, and then accompany students to the experience of success and joy, as they consider this to be the most important component of the learning environment for the growth of student motivation and engagement in learning activities. Acknowledging and nurturing students' individuality, creating cooperative social interactions in the

classroom, working together in different environments and contexts, and showing the teacher's personal example and the world, which encourages students to engage in learning. The features of the teacher-created environment seeking to motivate students identified in the research are also characteristic of meaningful learning, during which students experience learning as having personal meaning/value for them. Hence, we can claim that learning motivation occurs if learning is personally meaningful to the student. Therefore, the learning process should be modelled in such a way that the learner primarily raises the question of what makes the activity meaningful to them. Only when the meaning of learning is understood, can the teacher help the student formulate goals and find ways to achieve them. Our findings demonstrate that in order to achieve student motivation and engagement, teachers should focus more on understanding how students learn, what their needs, interests, and abilities are, recognising and building on their personal experiences, and creating a warm interpersonal relationship so that they feel supported by the teacher, with whom they create their own meaning. In the educational process of primary school students, priority should be given to personal meanings related to learning – deep and/or emotional states, so that students engage and want to learn in further school cycles and in life. The research findings can contribute to a better understanding of how to support students' meaningful learning in the context of primary education, which will increase their motivation for learning. The revealed ways and strategies of increasing the motivation of primary school students for learning can be applied in educational practice, analysed, newly modelled, experimented with, and researched in teacher education and development programmes, seeking to better understand how to create a meaningful learning environment. In order to promote meaningful experiences as one of the priority components of meaningful learning for primary school students, teachers need a deeper understanding of how learners personally value and construct their own learning experiences.

Limitations of the Research and Further Directions of the Research

Although the study has revealed many valuable findings, its limitations could be noted in that the data on what motivates and makes students' learning meaningful were analysed on the basis of the teachers' rather than the students' survey. While acknowledging that the development of personal meaning in the learning process is inevitable, it is essential to understand what experiences primary school students bring to lessons and what significance they give to these experiences. Therefore, it is significant to further explore the ways in which students experience meaningful learning. This would lead to a better understanding of didactic approaches to meaningful learning as considered from the student's perspective, which would help teachers to prioritize methods, approaches, and contexts that promote meaningful experiences in primary schools, and facilitate targeted decisions to enable students to gain such experiences.

Nevertheless, as an advantage of this research, we consider the qualitative study, which has been conducted and provided a deeper insight into how teachers motivate students to learn, what contexts they create, and how they achieve student learning success by making their learning meaningful. We would suggest that further research could be concerned with interpreting teachers' conceptions of meaningful learning, as this conception may affect how they try to make learning meaningful for their students.

References

Ausubel, D. (1968). *The psychology of meaningful verbal learning: An introduction to school learning.* Grune & Stratton.

Bingham, A. J., & Witkowsky, P. (2022). Deductive and inductive approaches to qualitative data analyzis. In C. Vanover, P. Mihas, & J. Saldaña (Eds.), *Analyzing and interpreting qualitative data: After the interview* (pp. 133–146). SAGE Publications.

Beni, S., Fletcher, T., & Ní Chróinín, D. (2017). Meaningful experiences in physical education and youth sport: A review of the literature. *Quest, 69*(3), 291–312. https://doi.org/10.1080/00336297.2016.1224192

Beni, S., Ní Chróinín, D., & Fletcher, T. (2019). A focus on the how of meaningful physical education in primary schools. *Sport, Education and Society*, *24*(6), 624–637. https://doi.org/10.1080/13573322.2019.1612349

Boiché, J., & Stephan, Y. (2014). Motivational profiles and achievement: A prospective study testing potential mediators. *Motivation and Emotion*, *38*, 79–92. https://doi.org/10.1007/s11031-013-9361-6

Bojović, I., & Antonijević, R. (2017). Students' motivation to learn in primary school. *Psychological Research, 1*(1)*,* 11–20. https://doi.org/10.32591/coas.ojpr.0101.02011b

Bojlén, N. S., & Lunde, I. M. (1995). Fokusgruppe interview somkvalitativforskningsmetode [Focus group interview as a qualitative research method]. *UgeskrLaeger*, *157*(23), 3315–8.

Braun, V., Clarke, V., & Weate, P. (2016). Using thematic analysis in sport and exercise research. In B. Smith, A. C. Sparkes (Eds), *Routledge handbook of qualitative research in sport and exercise* (pp. 91–205). Routledge.

De Meyer, J., Soenens, B., Aelterman, N., De Bourdeaudhuij, I., & Haerens, L. (2016). The different faces of controlling teaching: implications of a distinction between externally and internally controlling teaching for students' motivation in physical education. *Physical Education and Sport Pedagogy, 21*(6), 632–652. https://doi.org/10.1080/17408989.2015.1112777

Drisko, J. W., & Maschi, T. (2016). *Content analysis.* Oxford University Press.

Eccles, J. S., & Roeser, R. W. (2011). Schools as developmental contexts during adolescence. *Journal of Research on Adolescence*, *21*(1), 225–241. https://doi.org/10.1111/j.1532-7795.2010.00725.x

Elo, S. Kääriäinen, M., Kanste, O., Pölkki, T., Utriainen, K., & Kyngäs, H. (2014). Qualitative content analysis: A focus on trustworthiness. *SAGE Open*, 1–10. https://journals.sagepub.com/doi/pdf/10.1177/2158244014522633

Filgona, J., Sakiyo, J., Gwany, G. M., & Okoronka, A. U. (2020). Motivation in learning. *Asian Journal of Education and Social Studies*, *10*(4), 16–37. https://doi.org/10.9734/ajess/2020/v10i430273

Fleer, M., & Pramling, N. (2015). *A cultural-historical study of children learning science. Foregrounding affective imagination in play-based settings.* Springer Science & Media.

Gill, P., & Baillie, J. (2018). Interviews and focus groups in qualitative research: an update for the digital age. *British Dental Journal*, *225*, 668–672. https://doi.org/10.1038/sj.bdj.2018.815

Hakkarainen, P., Saarelainen, T., & Ruokamo, H. (2007). Towards meaningful learning through digital video supported, case based teaching. *Australasian Journal of Educational Technology*, *23*(1), 87–109. https://doi.org/10.14742/ajet.1275

Hanani, N. (2020). Meaningful learning reconstruction for millennial: Facing competition in the information technology era. *IOP Conference Series: Earth and Environment Science*, *469* 012107. https://doi.org/doi:10.1088/1755-1315/469/1/012107

Ignelzi, M. (2000). Meaning-making in the learning and teaching process. *New Directions for teaching and learning*, *82*, 5–14.

Jonassen, D. H., & Strobel, J. (2006). Modelling for meaningful learning. In D. Hung, M. S. Khine (Eds.), *Engaged learning with emerging technologie*s (pp. 1–27). Springer. https://doi.org/10.1007/1-4020-3669-8_1

Jonassen, D. H. (2000). Learning as activity. *The Meaning of Learning Project Learning Development Institute Presidential Session at AECT Denver*, October 25–28. http://www.learndev.org/dl/DenverJonassen.PDF

Kärki, T., Keinänen, H., Tuominen, A., Hoikkala, M., Matikainen, E., & Maijala, H. (2018) Meaningful learning with mobile devices: pre-service class teachers' experiences of mobile learning in the outdoors. *Technology, Pedagogy and Education*, *27*(2), 251–263. https://doi.org/10.1080/1475939X.2018.1430061

Keramati, M. R., & Gillies, R. M. (2022). Teaching cooperative learning through cooperative learning environment: a qualitative follow-up of an experimental study. *Interactive Learning Environments.* https://doi.org/10.1080/10494820.2022.2100429

Koca, F. (2016). Motivation to learn and teacher–student relationship. *Journal of International Education and Leadership*, *6*(2), 1–20. https://files.eric.ed.gov/fulltext/EJ1135209.pdf

Kostiainen, E., Ukskoski, T., Ruohotie-Lyhty, M., Kauppinen, M., Kainulainen, J., & Mäkinen, T. (2018). Meaningful learning in teacher education. *Teaching and Teacher Education*, *71*, 66–77. https://doi.org/10.1016/j.tate.2017.12.009

Kretchmar, R. S. (2006). Ten more reasons for quality physical education. *Journal of Physical Education. Recreation & Dance*, *77*(9), 6–9. https://doi.org/10.1080/07303084.2006.10597932

Kretchmar, R. S. (2007). What to do with meaning? A research conundrum for the 21st century. *Quest*, *59*, 373–383. https://doi.org/10.1080/00336297.2007.10483559

Krippendorff, K. (2004). *Content analysis: An introduction to its methodology* (2nd ed.). Sage.

Loyens, S. M. M., & Gijbels, D. (2008). Understanding the effects of constructivist learning environments: Introducing a multi-directional approach. *Instructional Science*, *36*, 351–357. https://doi.org/10.1007/s11251-008-9059-4

Martin, A. J. (2009). Motivation and engagement across the academic lifespan: A developmental construct validity study of elementary school, high school, and university/college students. *Educational and Psychological Measurement*, *69*(5), 794–824. https://doi.org/10.1177/0013164409332214

Martin, A. J., Ginns, P., & Papworth, B. (2017). Motivation and engagement: same or different? Does it matter? *Learning and Individual Differences*, *55*, 150–162. https://doi.org/10.1016/j.lindif.2017.03.013

Mayer, R. E. (2002). Rote versus meaningful learning. *Theory Into Practice*, *41*(4), 226–232.

Mayer, R. E. (2009). Constructivism as a theory of learning versus constructivism as a prescription for instruction. In S. Tobias & T. M. Duffy (Eds.), *Constructivist instruction: Success or failure* (pp. 184–200). Routledge.

Mehmet, E., Muhammet, U. & Mehmet, B. (2013). A review of research on environmental education in non-traditional settings in Turkey, 2000 and 2011. *International Journal of Environmental and Science Education, 8* (1), 37–57.

Méndez-Aguado, C., Aguilar-Parra, J. M., Álvarez, J. F., Trigueros, R., & Fernández-Archilla, J. A. (2020). The influence of emotions, motivation, and habits in the academic performance of primary education students in French as a foreign language. *Sustainability*, *12*(6), 2531. https://doi.org/10.3390/su12062531

Mokytojų ir pagalbos mokiniui specialistų (išskyrus psichologus) atestacijos nuostatai (2008). Lietuvos Respublikos švietimo ir mokslo ministro 2008 m. lapkričio 24 d. įsakymas Nr. ISAK-3216. https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.332784

Mystakidis, S. (2021). Deep meaningful learning. *Encyclopedia*, *1*, 988–997. https://doi.org/10.3390/encyclopedia1030075

Ní Chróinín, D., Fletcher, T., & O'Sullivan, M. (2018). Pedagogical principles of learning to teach meaningful physical education. *Physical Education and Sport Pedagogy*, *23*(2), 117–133. https://doi.org/10.1080/17408989.2017.1342789

Niemi, K., Minkkinen, J., & Poikkeus, A-M. (2022). Opening up learning environments: liking school among students in reformed learning spaces, *Educational Review*, 1–18. https://doi.org/10.1080/00131911.2022.2098927

Opdenakker, MC., & Minnaert, A. (2011). Relationship between learning environment characteristics and academic engagement. *Psychological Reports*, *109*(1), 259–28.

Patton, M. Q. (2015). *Qualitative evaluation and research methods*. Sage.

Polman, J., Hornstra, L. & Volman, M. (2021). The meaning of meaningful learning in mathematics in upperprimary education. *Learning Environments Research*, *24*, 469–486. https://doi.org/10.1007/s10984-020-09337-8

Rantala, T., & Määttä K. (2012). Ten theses of the joy of learning at primary schools. *Early Child Development and Care*, *182*(1), 87–105. https://doi.org/10.1080/03004430.2010.545124

Rufini, S. E., Bzuneck, J. A., & de Oliveira, K. L. (2012). The quality of motivation among elementary school students. *Paidéia*, *22*(51), 53–62. https://doi.org/10.1590/S0103-863X2012000100007

Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: classic definitions and new directions. *Contemporary Education Psychology*, *25*, 54–67. https://doi.org/10.1006/ceps.1999.1020

Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. Guilford Press. https://doi.org/10.1521/978.14625/28806

Schreier, M. (2014). Qualitative content analysis. In U. Flick (Ed.), *The Sage handbook of qualitative data analysis* (pp. 170–183). Thousand Oaks, Sage.

Siry, Ch., & Gorges, A. (2020). Young students' diverse resources for meaning making in science: learning from multilingual contexts, *International Journal of Science Education*, *42*(14), 2364–2386. https://doi.org/10.1080/09500693.2019.1625495

Steinmayr, R., & Spinath, B. (2009). The importance of motivation as a predictor of school achievement. *Learning and Individual Differences*, *19*(1), 80–90. https://doi.org/10.1016/j.lindif.2008.05.004

Stroet, K., Opdenakker, M-CH., & Minnaert, A. (2015). What motivates early adolescents for school? A longitudinal analysis of associations between observed teaching and motivation. *Contemporary Educational Psychology*, *42*, 129–140. https://doi.org/10.1016/j.cedpsych.2015.06.002

Tiilikainen, M., Karjalainen, J., Toom, A., Lepola, J., & Husu, J. (2019). The complex zone of constructivist teaching: a multi-case exploration in primary classrooms, *Research Papers in Education*, *34*(1), 38–60. https://doi.org/10.1080/02671522.2017.1402080

Valadares, J. (2013). Concept maps and the meaningful learning of science. *Journal of Educators, Teachers and Trainers*, *4*, 164–179.

Vallori, A. B. (2014). Meaningful Learning in practice. *Journal of Education and Human*, *3*(4), 199–209. https://doi.org/10.15640/jehd.v3n4a18

Van der Werf, G. Opdenakker, M-C., & Kuyper. H. (2008). Testing a dynamic model of student and school effectiveness with a multivariate multilevel latent growth curve approach, *School Effectiveness and School Improvement*, *19*(4), 447–462. https://doi.org/10.1080/09243450802535216

Van Oers, B. (2009). Developmental education: Improving participation in cultural practices. In M. Fleer, M. Hedegaard, & J. Tudge (Eds.), *Childhood studies and the impact of globalization: Policies and practices at global and local levels* (pp. 213–229). Routledge.

Van Rijk, Y., Volman, M., de Haan, D., & van Oers, B. (2017). Maximizing meaning: Creating a learning environment for reading comprehension of informative texts from a Vygotskian perspective. *Learning Environments Research*, *20*(1), 77–98. https://doi.org/10.1007/s10984-016-9218-5

Wigfield, A., & Cambria, J. (2010). Students' achievement values, goal orientations, and interest: Definitions, development, and relations to achievement outcomes. *Developmental Review*, *30*(1), 1–35. https://doi.org/10.1016/j.dr.2009.12.001

Wilson, C. E. (2020). The effects of inquiry-based learning and student achievement in the science classroom. *Student Research Submissions*, *370*, 1–36. https://scholar.umw.edu/student_research/370

Kaip pradinių klasių mokytojai kuria prasmingą mokymosi aplinką, siekdami motyvuoti mokinius?

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Santrauka

Viena pagrindinių mokytojo užduočių yra sukurti mokinius įtraukiančią ir jų mokymosi motyvaciją stiprinančią aplinką. Vienas iš būdų tam pasiekti yra mokymosi įprasminimas mokiniams. Tyrimu buvo siekta išsiaiškinti, kaip mokytojas kuria prasmingą mokymosi aplinką pradinių klasių mokiniams, siekdamas skatinti jų mokymosi motyvaciją. 8 pradinių klasių mokytojai dalyvavo *focus* grupės interviu. Indukcinės tyrimo duomenų analizės metu išskirtos penkios teminės kategorijos, atspindinčios mokytojų kuriamos mokinių mokymąsi įprasminančios ir motyvaciją skatinančios aplinkos bruožus: mokinių „palydėjimas" į sėkmės ir džiaugsmo patyrimą; mokinių individualumo pripažinimas ir puoselėjimas mokant; mokytojo asmeninio pavyzdžio demonstravimas; socialinės sąveikos klasėje, grįstos mokinių bendradarbiavimu, kūrimas; veikimas kartu įvairiose aplinkose. Tyrimas atskleidė, kad mokytojų kuriama aplinka yra orientuota į mokinį, todėl mokytojai, pirmiausia, siekia suprasti mokinio poreikius, išsiaiškinti nenoro mokytis priežastis ir tada palydi mokinius į sėkmės ir džiaugsmo patyrimą, nes laiko tai svarbiausiu mokymosi aplinkos komponentu siekiant mokinių motyvacijos augimo ir įsitraukimo į mokymosi veiklas. Pradinių klasių mokinių ugdymo procese pirmenybė turėtų būti teikiama asmeninėms reikšmėms, susijusioms su mokymusi, – giluminėms ir/ar emocinėms būsenoms, kad mokiniai įsitrauktų ir norėtų mokytis tolesniuose mokyklos koncentruose ir visą gyvenimą.

Esminiai žodžiai: *pradinių klasių mokytojai, pradinių klasių mokiniai, prasmingas mokymasis, mokymosi motyvacija.*