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Central European journal of educational research 6 (2024) 2, S. 76-86

Research Paper

Playing Purposefully with Students in Courses – a Concept, an Implementation, and an Evaluation of a University Module

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Recommended citation:

Moser, G. (2024). Playing Purposefully with Students in Courses – a Concept, an Implementation, and an Evaluation of a University Module. *Central European Journal of Educational Research*, *6*(2), 76–86. https://doi.org/10.37441/cejer/2024/6/2/15454

Abstract

Playing as a method of learning is predominantly applied in preschool and primary education. However, in the context of higher education, the method of playing is only sporadically used. The novelty of this topic lies in its application at the tertiary level, particularly in teacher education, where the aim is for students to plan and support learning processes for pupils from deep structures. This study investigates how playful learning methodologies can be effectively integrated into higher education and examines the impact on student attitudes and teaching practices. The module 'Playful Learning in Primary Education' was evaluated during the autumn semester of 2023 at the Institute for Primary Education of the PH FHNW in Switzerland. Initially, the topic of play is defined from multiple theoretical perspectives. The module description outlines the research questions addressed in the study. A central component of the evaluation is the students' certificates of achievement, which were analyzed using qualitative content analysis. The results highlight the attitudes toward playful methodology that students had at the beginning of the module and the attitudes and experiences they acquired by the end of the module. The evaluation results are presented in summative fashion in tables and interpreted in the discussion. The article aims to motivate university teachers to offer playful learning methods in higher education and to experience the positive impacts of this methodology with the students. The results clearly show that this methodology can lead to changes in teaching practice.

Keywords: playful learning; university teaching; deep structures; game; game forms; didactic play

Introduction

The application of play as a learning method is studied in pedagogy mainly through free play, digital games, and broadly in rule-based games, with children and teenagers being the target group (see Nicolopoulou, 2010; McInnes et al., 2011; Toub et al., 2016; Weisberg et al., 2016 for more). It is recognized that play goes beyond the learning aspect to contribute significantly to the positive psychological personality development of every individual (see Heimlich, 2015; Crowley, 2017; Hüther & Quarch, 2018; Yogman et al., 2018 for more). However, a research gap is identified when it comes to the ways of facilitating play with university students, analyzing the effects of this play, and how these students, as young teachers, will implement playful didactics in their teaching. In pedagogical primary school practice, one encounters different implementations of a planned lesson. The idea of what a good lesson is and how it is designed is subjectively acted upon by teachers (Kunter, 2014). If a lesson is considered from the pedagogical, didactical, and methodological point of view, good teaching can be defined by means of various characteristics.

In general, in good teaching, teachers intend to meet the individual needs of students by offering differentiated learning opportunities, by designing varied lessons, by arousing students' interest in learning, and by enabling them to acquire new knowledge. The didactic intent to plan, implement, and evaluate learning and

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teaching processes forms a central part of teachers' work. Professionalism in the teaching profession develops from individual and subjectively formed beliefs and attitudes. Every teacher has different competence expectations and ideas about how learning goals can be achieved in the classroom and which didactics and methodology are suitable for achieving the teaching goals (Eikmeyer, 2022). The topic of learning through play is addressed differently at the primary level. Play is used, for example, to relax after long periods of concentration in class, to enhance the social climate in the class as well as to use it as a learning method. At the primary level, students are taught basic knowledge, and their skills and social development are promoted. Holistic learning is a central requirement here. It is not only about technical learning, but also about discovering the child's talents and gifts, living in a community, learning rules, strengthening self-esteem and preparing for secondary schools. According to the findings of learning research, deep structures are crucial for the learning process. Deep structures aim at understanding what is being learned (Kunter & Trautwein, 2013). In order for deep structures to be effective, lesson planning needs to address these questions: "What goals should students achieve in class, what learning methods, strategies, and supports will enable students to achieve them, and how should such instruction be planned and designed?" Deep structures are not observable from the outside, but become perceptible as students make connections, express ideas, problematize aspects, develop problem-solving strategies, ask questions, search for arguments, draw conclusions, or transfer knowledge to new situations. Faced with this challenge in the classroom, teachers often wonder how they can encourage and intrinsically motivate students to learn and what kind of instruction supports this endeavor.

Play is familiar to children as an instinctive and natural activity. Through play, children have already had numerous experiences, acquired new knowledge, and expressed emotions. Upon closer examination of what play is and how play can be defined, one encounters a complex question. Play can only be defined when a very concrete focus is placed on play, because play manifests itself in various forms, most of which diffuse with each other and continue to develop in new constellations. Against this background, it is essential in the training of teachers to experience play as a natural and effective method of learning with students in a theoretical and action-oriented way and to show them how they can use play and games in primary education. On this occasion, a teaching module “Playful Learning in Primary Education” was designed, taught, and evaluated for teaching in the fall semester 2023 at the Institute of Primary Education of the PH FHNW in Northwestern Switzerland. The conception, the theoretical foundation, the certificate of achievement, and the evaluation of the module teaching objectives as well as certificates of achievement are explicated in this paper. The evaluation data, which serve as a basis for discussing the research results, are presented in the methodological part in Tables 1 to 6.

The planning and a conception of the module requires, among other things, an in-depth examination of children's personality development, of basic scientific perspectives, the classification and assignment of different understandings to certain phenomena such as the joy of playing, the expansion of experience, the formation of experience or learning. A teaching and learning setting offers the students the possibility, after the introduction of the playful basics, to develop different games themselves, to play, to reflect, as well as to exchange about the playful experiences in the course.

Each course requires an in-depth treatment of the didactic methods of higher education on the part of the lecturers, which turn out to be important criteria of an adult educational, differentiated access to the learners. According to Geißler (2016), the teaching and learning process can progress productively when its interactive basis is clear, when appropriate rules, i.e., rules based on common expectations, are agreed upon with students and when these rules become practical in a setting. Higher education didactic settings in which students reflect on their experiences and insights of professional pedagogical thinking and acting are centrally concerned with the following question: “What framework do students need to make pedagogical thinking and acting transparent?” A crucial moment in higher education didactic teaching practice is when students concretely link observable and experiential knowledge (e.g., from the internship phases) with instructional components that are effective for learning.

Planning in higher education, like any instructional planning, is tied to intentions, goals, and competencies that students are expected to achieve. One aspect that distinguishes university didactics is that a teacher intends to discuss topics with students, scrutinize them critically, search for areas of tension, and interlink theory with practice (Heuchemer et al., 2020). For students to gain insights and engage with thinking and acting, it is necessary for the teacher to pose questions during the planning of a teaching module and each course. These aid in reflecting on the access points, conditions and prerequisites needed for the course. This paper evaluates and presents a topic that has not been carried out in such a context before - not in Switzerland and not

internationally. Therefore, the research data in this paper is not compared to or interpreted against other data. In this paper, we present data that represents a new methodology at the university level.

Theoretical foundations on the topic of playing

Play is a cultural product that takes place in social contexts. When a person is born, he or she is born in a society in which the person develops and socializes as a personality. The "socialization" of humans as Abels describes it, takes place as an interaction between an individual and a group. In this process, individuals interact with each other by coordinating and adapting their actions (Abels, 2019). People have always played, in every culture and on all continents. Therefore, play is considered a basic anthropological constant. One of the most famous cultural theorists Johann Huizinga has interpreted human culture in his work Homo Ludens (1938) "The playing man or man as a playful". He states that culture originated and comes into being in the form of play. According to Huizinga, play is older and more original than created culture. "I do not claim that culture originates from play, but that it grows in play, and furthermore, that in some cases it retains its play character where one does not expect it or is aware of it, shorter as more often play and seriousness are inseparable or merge into each other in culture" (Huizinga, 1938). Huizinga called play a "primary life category" characteristic of living beings. Thus, he puts human and animal play primarily on the same level. Culture, which arises from play, arises now when play cannot be assigned to a vital biological function. If play arises by means of a free action and from the inner need of a human being, the cultural value that is created in the process will enrich the human being spiritually.

In the view of Huizinga (2938), a game is "a struggle and something or a representation of something" (p. 22). Free play is free of material interest and the meaning content of a game is not linked to externally determined norms and rules. The playing individual decides for himself which rules go along with the game. Free will decides what content is played, what is played with and with whom, and how a game will proceed. Huizinga affirms in Homo Ludens that play has no practical purpose and proceeds according to its own rules. The only reason to play is the pleasure of the game itself (Huizinga, 1938). From the philosophical-anthropological point of view, a game is the spiritually necessary existence that functions indispensably for the development and elevation of human life in its spiritual and social dimension.

The term "play" is used in a wide variety of contexts. The most common of these is that we associate play with children playing. However, play is an integral part oft the adult world as well. Baer (2020) explicates play as its own invented world with specific people, rules, and actions. For Mogel (2008), children's play realizes cultural and social positions and forms a central intersection in the cultural development of humanity. Play and human existence cannot be separated from each other. When considering human development, play assumes one of the most important functions in the holistic development of a human being. It is one of the most natural and essential methods of preparing for future life (Sauerbrey, 2021) Thus, a special meaning is to be assigned to the free childlike play.

In play and by means of play, children make countless experiences that are associated with emotions and are therefore anchored more sustainably in the brain. One of the first experiences children have through play is exploring their own bodies. Newborns first become reflexively familiar with their bodily functions, and at the same time they make their first and valuable self-efficacy experiences. These processes resemble play, as the processes are often repeated, and the newborns experience them affectively.

In toddlerhood, children imitate adults and give objects from the environment a new function in play. A block of wood becomes a car, a teddy becomes a child, or a roll of paper becomes an airplane and can fly. In doing so, children develop and foster their imagination, which is based on experiences and observations from the environment. In real childlike play, children are absorbed and immersed. Children do not need any prompting to play children do it intuitively. In this developmental phase of infancy, children make enormous progress in the linguistic, cognitive, and motor areas. Childhood play development occurs in phases. However, this does not mean that children do not draw on past play phases and experiences.

The most crucial finding is that as children develop, they make more complex demands on play. For example, in early childhood they are intrinsically motivated to take on and act out various roles. In doing so, they imitate adults or transform themselves into imaginative characters. In preschool, children increasingly develop an understanding of how to organize a game, and how to adopt and adhere to rules. Rules offer children orientation and order in play, which are indispensable for normative interaction in the community.

According to Thiele (2020), rules determine who takes part in the game, which moves are allowed and which are forbidden. Those who do not abide by the rules of the game cannot continue playing. The

internalization of rules leads to social development and the assumption of new roles and functions. In elementary school, children show an increased interest in competition and experimentation.

The children are not primarily interested in winning, but in self-knowledge, how they subjectively assess their abilities in comparison with their peers. “What am I good at?” “What talents do I have?” “What superpowers do I possess?” When experimenting, children develop hypotheses and want to explore them. Curiosity drives them to explore the world and natural phenomena.

While still in kindergarten, children develop the need to build something concrete systematically or according to a plan. One of their first attempts is to build a tower. Stacking blocks on top of each other and trying to build the tower as high as possible fascinates all children. With more complex play activities, other play ideas emerge, such as building a garage, a bridge, a spaceship, or a superhero. During construction, children learn above all how to plan and how to proceed systematically. By means of trial and error, they learn to overcome difficulties and focus on the set goal. The physical and mathematical experiences gained in the process are indispensable for children's cognitive thinking at this stage. In addition to the above-mentioned areas, construction also promotes children's sensory-motor skills and creative problem-solving.

Before discussing didactic play, it is necessary to explicate free childlike play and free play. Free childlike play arises from a child's intrinsic motivation to play and is not determined by spatial and temporal factors. The child's desire to play develops spontaneously and does not require external motivation. In free play, the child plays its own scenarios, sinks into fantasy, makes its own decisions, pursues its own interests without guidelines and goals. The play value of such play is reflected in the child's emotional experience and must be viewed exclusively from the child's perspective. Free play is a natural way for children to explore themselves and the world, to practice skills, to express creativity and emotions. In addition, free play offers children a way to have fun, relieve stress and express emotions.

The so-called free play is not to be equated with the free play of children. This term and this form of play are mainly used in educational institutions. “We talk about free play when free childlike play takes place in an educational setting in which the play environment is defined by means of a variety of play opportunities, content, and materials” (Engel et al., 2022). The free play initiates a child exactly as the free childlike playing from its own impulse and determines the course of the play itself.

The learning progress is made casually by the playing child, and he or she is intrinsically motivated to undertake new explorations and experiences. During free play, children perceive their environment in context. They always experience themselves, other children, and objects in the educational institution in a causal context. The playing child processes, encodes, and orders the perceived sensory impressions, forms new cognitive structures, and experiences oneself as an individual who actively participates in the environment.

In the primary level, free play is either planned in the morning as a way to “get used to things” or as a free play learning phase in the classroom, as a reward or to rhythmize the lessons. A didactic game always pursues the intention of acquiring new knowledge, promoting existing knowledge or making it more flexible.

It combines playful elements with educational content to make learning more joyful, motivational and effective. At the primary level, didactic games are used in diverse learning contexts. A didactic game is characterized by a balanced combination of fun and learning. One claim of a didactic game is to activate the interest and motivation of the students for learning and to inspire them for learning by playing.

Didactic games are used in the classroom, for example, in the form of language games to train vocabulary, grammar, pronunciation or the understanding of texts and spoken words. In mathematics, games are played to support the learning of mathematical concepts. In science, games are played to elicit and deepen knowledge of phenomena, and in music, games are played to learn or enhance skills and techniques. Logic and thinking games are played across all subjects to train logical thinking, problem-solving skills, and critical thinking. Various games can be observed and described along their surface structure.

During play, learning experiences of different qualities are made, which can be associated with deep structures. The deep structures are interpreted differently in the educational science discussion (Pauli & Schmid, 2019), but they are discussed most in connection with cognitive activation, constructive support, and effective classroom management. Deep structures, in contrast to surface structures, target the formation and understanding of concepts. In learning, various methods and strategies are tried and applied to trigger deep-structural effects. This includes, for example, actively processing information, making connections and relationships between information, asking questions, explaining concepts, transferring what has been learned to new situations, and reflecting on what has been learned. In the process, a genuine understanding is developed, which characterizes sustainable features. The deep structures of a didactic game depend on the learning goals and the content of a game. A learning game intends to elicit the pre-concepts, to build a new knowledge and to

make it flexible, as well as to consolidate what has been learned. In these learning phases, which are partially observable in the classroom, students actively deal with themselves and the new challenges in an interactional relationship. A didactic game triggers and promotes active learning if the game arouses enthusiasm in the learners and challenges them while playing.

A surface of a didactic game is formed by all observable characteristics such as the age group, the game form, the subject area, the rules, the design, the number of players, the game duration, and the game means.

Methodology

Background, Significance of Research and Research Questions

At the Institute of Primary Education at the University of Teacher Education in Northwestern Switzerland, the module “Playful Learning in Primary Education” was taught for the first time in its presented form in the autumn semester of 2023. In the Swiss compulsory education landscape, competence-oriented teaching is central in schools. To teach in a competence-oriented manner, it is necessary to reflect on and question didactic and methodological structures. It is not about changing and restructuring everything but about developing a reflective view and asking whether the planned teaching offers students a suitable, age-appropriate, and effective learning environment.

At the Institute of Primary Education, competence orientation is strongly implemented in teaching. For this reason, the module "Playful Learning in Primary Education" was developed, taught, and evaluated at the end of the module. The results of the evaluation are of great importance to us, as they show whether we have chosen the right direction with our competence-oriented teaching method. In this article, we demonstrate the general relevance of play for humans and its relevance for both compulsory and higher education. Talking about competence orientation in higher education without adapting the teaching strategy would not be truly competence oriented.

With this module, we aim to implement this approach in an action-oriented manner at the Institute of Primary Education. The module consisted of 14 teaching sessions. In each session, theoretical foundations on the topic of games were covered using selected readings, didactic games were played, and new didactic games were developed with the students. The readings did not sound during the seminars; they were given to the students as preparatory assignments.

The theoretical part of the contribution outlines the theory that formed a theoretical foundation in the settings. The games played were developed by the lecturer and the students themselves. The criteria for game design, the connection, and alignment with teaching objectives were discussed. A mandatory part of the sessions was reflection after playing and the group exchange. This allowed students to share their experiences and questions and benefit from the experiences of other students. The students chose which types of games they wanted to develop, which steps in the learning taxonomy to achieve, and which skills and competencies to promote. They learned in the sessions the criteria a game must meet to ensure joy and motivation for playing and not diminish during the game. The students brought their lesson plans from their internships into the sessions and prepared the games for the next teaching setting. This provided the students with concrete links to practice.

After completing the module, the students wrote a certificate of achievement in which they applied their theoretical knowledge and practical skills. They planned a teaching series (3-5 lessons) in either German, Mathematics, or Elementary social studies. In the planned teaching series, didactic games (3-5) should represent an appropriate learning method. The didactic games had to be newly developed. Each developed game should include a detailed description of the game, its didactic use in the learning process, and its creative design. The first game should enable confrontation with the learning material, the second game should allow for working through the topic, and the third game should consolidate and review the learned content. It was crucial that the formulated learning objectives could be achieved through game logic.

At the end of the certificate of achievement, the students reflected on the value of their games, the learning gains they themselves achieved in the module, what had changed in their attitude towards playing in the classroom, and how they would apply playing in the classroom in the future.

For the evaluation of the module, the following questions were formulated:

- For which subjects will the students plan the lessons using games? Options included Mathematics, Elementary Social Studies, and German.
- Which types of games will the students choose for their lessons?

- For which step in the learning taxonomy will the students plan the games?
- What value do the students estimate for the learning of the children?
- What learning gains will the students name after attending the module?
- What will the students consider a gain for their future role as a teacher after attending the module?

Data collection and analysis techniques

The certificates of achievement from the students were evaluated using Mayring's (2022) qualitative content analysis of text. This method was chosen because it allowed for a detailed examination of the data content, garnering nuanced insights. This methodology provided insight into the students' thought processes, thereby facilitating further steps in the qualitative interpretation of the data. The method was used to systematically process written certificates of achievement from students who attended the featured module. The material under examination was reduced to manageable brief texts while retaining the essential content. We were interested in the content level of the material and aimed to use new insights to further develop teaching and theory in the topic. We also measured the absolute frequency (f) of quantitative data concerning the student-developed games. The evaluation of the written certificates of achievement began after they were submitted by the given deadline. These performance records were created in Word or PDF and uploaded to the Moodle digital platform. The certificates were read, analyzed, with statements and content coded, categorized, and evaluated. The primary focus was on evaluating the module. We oriented ourselves according to the transparently formulated criteria that were explained at the beginning of the module. The coded and analyzed statements and contents became part of our further evaluation of our research using content analysis in the next step. The quantitative representation of frequency became apparent after the coded answers were categorized. This information was subsequently displayed in tabular form. In the final step, the evaluation results were qualitatively interpreted, discussed, and conclusions were formulated.

Sample

This is a systematic sample. We selected 85 students who had enrolled in the module as part of their main course of study. The certificates of achievement from three seminar groups - one with 28 students, another with 28, and a third with 29, were evaluated. The module, titled “Playful Learning in Primary Education”was taught in Muttenz, located in the canton of Basel Land in Northwestern Switzerland. The students who enrolled in the module were aware of the required certificates of achievement they needed to provide. The content, criteria, and prerequisites of the module were sourced from the course catalogue announcement. Issued as an educational science course, this module covered general didactic (as opposed to subject-didactic) and methodological approaches. Students, who are in the process of completing a six-semester bachelor's degree, received 2 ECTS points for attending this module. At the university, students attend modules in Mathematics, German, Elementary Social Studies, Languages (French or English), Sports, Music, and Textile and Technical Design. Additionally, they attend educational science modules, including our module, Developmental Psychology, Inclusive Education, and Computer Science Education. In the subjects of Mathematics, Languages, and Elementary Social Studies, teaching is divided into subject sciences and subject didactics. The students began working on certificates of achievement after completing the module and had 4 weeks to prepare for. The certificates of achievement from the students were evaluated using Mayring's (2022) qualitative content analysis of text. This method was chosen because it allowed for a detailed examination of the data content, garnering nuanced insights. This methodology provided insight into the students' thought processes, thereby facilitating further steps in the qualitative interpretation of the data. The method was used to systematically process written certificates of achievement from students who attended the featured module. The material under examination was reduced to manageable brief texts while retaining the essential content. We were interested in the content level of the material and aimed to use new insights to further develop teaching and theory on the topic. We also measured the absolute frequency (f) of quantitative data concerning the student-developed games.

Data Processing and its Analysis

85 students who attended the module each submitted certificates of achievement. The certificates of achievement consisted of the following parts: lesson plans, developed games, and the reflection part. These were analyzed, coded, categorised, and the results were subsequently qualitatively interpreted. The first data collection referred to the quantitative presentation of the raw data, which indicated in which subjects the students planned the lessons. The values within the table are presented in terms of frequency.

Table 1. Subjects in which the students planned the lessons

	Mathematics	*Elementary social studies*	*German*
Plannend lesson in Value (f)	17	44	24

In the next step, it was determined from the certificates of achievement what type of games students had developed for the lessons. The games developed in the certificates of achievement were categorized into three categories: rule-based games, perceptual games, and role-playing games. The categories reflect the students' preferences for the types of games and are presented quantitatively by frequency.

Table 2. Games that students have developed

	Rules games such as ladder games, memory or other matching games	*Perception games*	*Role-playing games*
Developed games Value (f)	380	21	24

In the learning setting, either the teachers set the learning objectives for the pupils, or the pupils set the learning objectives themselves. In both cases, the methodology must initiate the learning process and achieve learning effects. The students developed the games in accordance with the learning objectives and had to choose which learning step in the learning taxonomy the designed game should be used to initiate learning. The table shows which learning taxonomy steps were selected by the students. After the qualitative analysis of the students' lesson plans in the area of didactic structuring, three categories were formed. The steps in the learning taxonomy, also called phases, were quantitatively represented in the categories by frequency.

Table 3. Overview of learning steps in classroom learning for which the students developed the games

	Confrontation with the learning object	*Working through the learning content*	*Securing and consolidating what has been learned*	*Transferring what has been learned*
Learning steps Value (f)	167	51	195	12

In the next table, following a qualitative analysis of the reflection parts of the certificates of achievement, the students' assessments are presented, demonstrating their perceived benefits of the games for teaching and children's learning. The reflection parts were read the text passages were coded and categorized. Four categories were formed. The students' statements are presented quantitatively in the table according to frequency.

Table 4. Stated value of the developed games that the students perceive for the learning of the pupils and the teaching

	Child-oriented learning	*Active learning*	*Higher motivation*	*Natural regulation of the class climate*	*Other answers*
Stated value of developed games Value (f)	80	72	69	33	12

In the reflection part, students grappled with their own learning gains, which they achieved in the module (14 Settings). The responses were read, coded, and categories were formed. Five categories were developed, and the data were presented quantitatively by frequency.

Table 5. Indicated responses from the students about what learning gains they were able to record as a result of attending the module

	The module showed me how to use games in the classroom	*I was convinced that games can be used to achieve learning objectives*	*I have already tried out various games in the internship and they went down very well with the students*	*I now dare to develop games myself*	*The conception of the games, the playing through of the games in the lectures and the exchange with other students was profitable for me*
Responses of Students Value (f)	79	77	12	52	85

Finally, in their reflection parts, the students reflected on their gain through engagement with the subject matter in relation to their future role as a teacher. The responses were read, coded, and categories were formed. Five categories were developed, and the data were presented quantitatively by frequency.

Table 6. Responses from students on what they estimate as a gain for their future role as a teacher due to attending the module

	Attending the module was beneficial for my professionalization	*I learned a lot about children's play*	*I will integrate games into my teaching*	*Other answers*
Responses of Students Value (f)	79	84	80	8

Discussion

The key findings of the study should be considered from multiple perspectives. The results of the evaluation show that students have benefited from education in their professionalization. It has been demonstrated that through action-oriented teaching at the university, in our case playful learning, a change in students' attitudes towards teaching can be achieved. At the beginning of the module, students had a one-sided view of games in the classroom and could not imagine that playing could promote specific learning stages in the taxonomy of learning for children. Initially, students perceived playing as a means of rhythmizing, which gradually changed over the course of the module. Through their own experiences, as they developed games themselves, students realized that playing and connecting with learning objectives can be combined.

Students considered playing in the classroom mainly as an element of rhythmizing and experienced that by means of intentional playing, one achieves set learning goals. Another learning gain was that the students learned how to plan games for the classroom and how to use them purposefully. The content and methodological structure of the module was also evaluated positively. The main goal of the module was to teach students the theoretical basics of gameplay, to develop learning games together with other students, and to play different forms of games to experience and internalize the didactics and methodology of playing games themselves. This goal was achieved in the module through its structure, the theoretical basics of playing games, playing various games, their reflection, team exchange, and game development. It was discussed and reflected upon what is meant by deep structures in playing games and when playing games is suitable as a learning method in the classroom.

The design of the teaching shows that to achieve effects in teaching, the entire module must be aligned with the goals. In our case, playing formed a central methodology and was consistently applied in every setting. Another finding from the study is that learning effects can be increased through systematic reflection. Since all certificates of achievement had been successfully completed, this shows that students understood this methodology in the module and were motivated to learn. This fact illustrates that action orientation and practical relevance in teaching have positive effects on students' learning. By independently designing games, students enhanced their self-efficacy. They learned that action orientation in teaching impacts their own psychological and motivational experiences. When designing the games, students chose rule-based games, which shows that

this form of play was perceived by students as the most effective in linking with the intended learning objectives in teaching. It also shows that this form of play was easy for students to understand and implement for learning. The students developed their teaching series in Elementary Social Studies, Mathematics, and German. Most of the 85 students, specifically 44 students, opted for planning and developing games in Elementary Social Studies. During the pre-assessment meeting, students were asked in which subject they would like to complete the certificate of achievement. The subject of Elementary Social Studies was named most frequently. This can be attributed to the fact that the students played with the pupils and had positive experiences in their placements in Elementary Social Studies.

When planning which forms of play would be best suited to achieve the learning objectives, the students largely opted for the rule game. The students intended to use the rule game to confront the pupils with the subject matter or to consolidate and secure the learned content. When reflecting on the added learning value of the developed learning games, the students answered the posed question: "In your opinion, what positive effects do the students have when their developed games are played in class?" Students linked the positive effects to child-centred, active learning, and an increased motivation for learning. These opinions from the students show us that they are convinced of the positive effects generated through playing in class. These beliefs are important because they indicate that the students have internalized these positive effects based on their own experiences. In discussions with students, it became clear that the positive experiences in Elementary Social Studies, which students had during internships, influenced the certificate of achievement. This finding shows that students build on positive experiences and expand them further. For teaching at the university, this means recognizing these experiences and using them as a starting point for new learning. This makes the theory more flexible, motivating, and understandable. Another effect achieved through playing was that students consciously related playing and the child. They reflected that playing is a child-centered learning method. The shift in perspective towards the child and the child's learning came to the forefront.

In reflecting on the module, all 85 students indicated that they benefited from attending the module. Multiple responses were possible. When asked what learning gains the students were able to record for themselves, 84 out of 85 students indicated that the greatest learning gain for them was getting to know and understanding children's play. Remarkably, 80 out of 85 students want to integrate games into their future lessons. The students' reasoning was based on both theoretical foundations and their own attitudes and experiences.

The results of the study are important for several reasons. First, as they show that the orientation of teaching at the university determines the orientation of teaching in practice, and second, that play as a method of learning is not only to be understood as free play but can be used as a method in teaching.

Assuring the Quality of Research and Ethical Considerations

Our evaluation was guided by the concept of 'assuring the quality of research'. This fundamental principle seeks not only to ensure that research standards are maintained but also to foster an environment where continuous improvement is possible. Students' certificates of achievement formed the basis of our evaluation and provided essential insights. They were a reflection of the students' understanding and engagement with the subject matter. Our assessment was criterion-based, ensuring a consistent and fair evaluation approach that values the validity and reliability of the findings. We meticulously examined the different components of these performance records, ensuring an objective and comprehensive analysis. After fulfilling the necessary European Credit Transfer and Accumulation System (ECTS) requirements, these performance records became the focus of our research work. While analyzing the students' reflections, we upheld rigorous ethical standards. Assuring the quality of research means not only generating reliable results but also respecting the integrity of the research process. As such, we gave each student's input the respect it deserved, refraining from manipulating or altering their statements. In sum, the assurance of research quality was embedded throughout the entire evaluative process, forming the foundation for our academic and research integrity. It will continue to guide our future research work, nurturing an academic culture that champions transparency, rigor, and innovation. Evaluation is initiated and facilitated by the institution, but it relies heavily on the active participation of students in order for it to be effective. By having students participate in the evaluation, the institution is recognizing their vital role in the educational process and valuing their input in shaping the teaching methodologies and strategies employed. The evaluation process is designed to be anonymous and confidential, ensuring that students feel safe to express their true thoughts and experiences. The evaluation does not just aim at identifying gaps or inconsistencies in the teaching but also to recognize and promote good practice. The insights derived from

evaluations can lead to changes in the curriculum, teaching styles, and assessment methods, ultimately enhancing the learning experience for future cohorts of students. Providing high-quality education is the core mission of the School of Education in Northwestern Switzerland and forms the basis of its academic reputation. Regular evaluations help to ensure that the teaching remains up-to-date, relevant, and effective, and that the institution continues to meet the needs and expectations of its students. In the broader societal context, this commitment to quality and continuous improvement in education has further implications. It contributes to the overall standard of education, fuels innovation, and fosters a dynamic and robust educational environment. It thus plays a pivotal role in shaping informed, skilled, and engaged citizens, thereby supporting the fabric of a thriving and active society.

Conclusions

The starting point of our research interest was to determine the learning effects this new module would trigger in students. This topic was new to the students in this elaboration. Our goal was for the students to design the instruction more effectively and age-appropriately through the internships and to transfer these experiences into their future profession. Checking this intention is hardly possible, but the performance record consisted of a complex task through which the students proved that they could plan such teachings for children. The learning games were newly developed by the students. Through this, we were able to understand whether all the theoretical attributes of this game development were adhered to.

The module Playful Learning in Primary School enabled the students to theoretically explore and practically test play as a learning method. Through the active and differentiated examination of the theory, the students have internalized the importance of play in human development and the potential that can be developed through play in the classroom. The theory in the module covered the following topics: Relevance of play for human development, the perspective of science on play, development of types of play, play in teaching, lesson planning, game development, deep and surface structures of games and play, game supervision, and other related topics.

Furthermore, it was shown how the topic of "play in elementary school" can be conceptually structured and taught in higher education. The focus was on play as a learning method and the playful didactic approaches that the students dealt with in the courses. The module also reflected on students' biographical and professional experiences, analyzed case studies, and discussed teaching in its breadth and complexity.

The goal of the module was not to prioritize play as a method, but to expand the students' repertoire of methods to include another effective and child-centred learning method.

The theme of surface and deep structures guided the teaching in thinking about which learning method activates the most effects in student learning and enables students to achieve the established learning goals.
The conception and design of the module had adult educational character. The students were cognitively activated to reflect on the learning processes, to develop self-directed and in a co-construction learning games, to discuss the structural and logical connections in class or to develop solutions for various topics and areas of tension by means of simulation games and to critically reflect on them.

The students have acquired their theoretical understanding largely through reading and discussing the readings. By working on reading assignments and developing learning games, the students have transferred what they have learned and their newly acquired knowledge.

Temporarily, the students took over the teaching in a co-teaching form in the individual courses, after prior arrangement by the lecturer. This made the courses more varied and cognitively activating, and the students were able to gain teaching experience in a university format. One limitation of the research approach was that the evaluation was conducted only at the end of the module. The validity of the findings may have been enhanced if the students had been surveyed prior to their first engagement with the topic of "Learning Through Play". Comparing these initial data with data gathered at the conclusion of the module might have allowed for a more nuanced understanding of the students' learning progression. Additionally, there was another limitation concerning the tendency of students to provide more positive responses in their performance records when reflections were a component of the assessments. This could have introduced a bias into our findings, and made them less reliably indicative of the students' true experiences and levels of understanding. This may have been offset by the collection of similar data throughout the duration of the module, which would have allowed for a more constant and potentially objective measure of the students' reflections and comprehension. In summary, though the described research approach was thorough and robust in many respects, these limitations should be taken into account when interpreting the findings and should be addressed in future research designs.

Acknowledgement: We thank Johnathan Dabney for the English language editing.

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