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Competencies required for teachers in higher education to conduct classes using a strategic business game

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Abstract

Contemporary business education should place more emphasis on the development of a proactive attitude among students, engage their creativity in problem solving, shape their analytical competencies and hone their skills related to teamwork, discussion and decision-making. However, this requires the teacher to replace the conventional transmission-based manner of conducting classes with an approach that places the student's activity at the center. Any shift towards designing educational opportunities and supporting students in the process of constructing their knowledge requires a change in the methodological skills of teachers in higher education.

The aim of this article is to present skills related to designing and conducting classes from a constructivist point of view, with the use of strategic business simulation games. The tasks of a teacher using constructivism were examined on the basis of in-depth interviews with university teachers who use business games in their work with students. The present case study shows that when the research participants teach, they create educational opportunities which place their students in problem situations and encourage them to make a series of managerial decisions. They activate the students' prior knowledge, allow them to make mistakes, stimulate interactions in the process of negotiating the meaning of the reality and support them in realizing the knowledge they acquire. The teachers create a context and immerse the students in running a virtual business, giving them an opportunity to build integrated and holistic knowledge. By giving their students autonomy, they teach them self-reliance and responsibility. It was observed in the analyzed narrations that, apart from a change in tools connected with using a business simulation, there was also a change in thinking about learning and teaching. What is of particular importance in this context is that these changes were accompanied by the teacher's development and a transformation from someone who based their classes mainly on experience and intuition, into a reflective and conscious educator who not only understands the mechanisms of learning and teaching, but can also name and explain them.

Keywords: methodological competencies, university teacher, constructivism, strategic virtual games, simulation

Introduction

Contemporary business education should place more emphasis on the development of a proactive attitude among students, engage their creativity in problem solving, shape their analytical competencies and hone their skills related to teamwork, discussion and decision-making, which is exactly what the job market demands. In view of the above, it seems important to consider what teaching methods should be used in higher education and what competencies a contemporary higher education teacher should have to achieve this task. Even though for several decades there has been literature available on academic teaching which emphasized the need to move towards a paradigm that places the student at the center of the process, in reality the kind of teaching in many institutions of higher education differs significantly from these recommendations. Students of business at higher education institutions are still taught using transmission-based methods, mainly lectures, during which the teachers provide obvious and textbook-like information that does not have to be discussed and does not require

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critical thinking (Davis, 2011; Prado et al., 2020). Meanwhile, entrepreneurship education requires not only the knowledge of definitions and theories, but also emphasizes the shaping of an entrepreneurial mindset and supporting the process of becoming an entrepreneur (Heinonen & Poikkijoki, 2006; Slattery et al., 2018). Therefore, educating students should involve not only extending their declarative and procedural knowledge, but also shaping new ways of thinking and acting, as well as new skills. This is only possible by designing original learning activities and presenting students with complex business problems that need to be solved (Balan & Metcalfe, 2012; Smith & Beasley, 2011). It is proposed that an approach should be used that encourages students to be more active and that uses elements of experimental learning, learning-by-doing and hands-on-learning (Gaweł & Wach-Kąkolewicz, 2016; Kolodner et al., 2003; Tan & Ng, 2006; Wach, 2019a). In other words, it is about an education system that supports students' in-depth learning (Biggs & Tang, 2007) and uses case studies, simulations, problem-based learning and team-based learning as teaching methods (Lohmann et al., 2019; Prado et al., 2020).

Virtual strategic games correspond to the proposals mentioned above. The literature describes the essence of this method and its benefits for students quite well, but relatively little attention is paid to analyzing virtual strategic games from a teacher's point of view. Using these games in teaching falls within the constructivist paradigm, and in planning and conducting classes the teacher needs to take different actions than when they adopt a typical transmission-based approach, whose foundation is the behaviorist perspective.

The aim of this article is to describe the methodological competencies of university teachers required to conduct classes using virtual strategic games which simulate running a business. The authors present the essence of this method and the competencies of a teacher through the prism of constructivist principles, and then refer to educational practice, i.e. the experiences of teachers who use strategic simulation games to conduct classes at a business university.

Virtual business games as a teaching method

Digital educational games play an increasingly important role in education as they are perceived as active, experiential, situated and problem-based, and encourage an immediate-feedback method of education. However, empirical evidence regarding the effectiveness of digital educational games is mixed (Vanbecelaere et al., 2020).

One of the areas concerning the use of digital education games is management and business education. The history of the modern business simulation game dates back to the 1950s and 1960s (Gonen et al., 2009). Business games use a simulation or a model of an entire enterprise or just its part (Greene, 1960). In these games, students play managerial roles (Jackson, 1959)

and run a virtual business by managing its different aspects, such as production, marketing, finance and human resources. Managerial decisions made during the game resemble real business situations (Zantow et al., 2005), which increases the organizational realism of the course and gives students an opportunity for unstructured learning (Tanner & Lindquist, 1998). By providing a context which imitates reality (Lean et al., 2006), these games support authentic education (Reiners et al., 2015) with the opportunity to 'learn by doing' (Garris et al., 2002).

Virtual strategic games allow students to sharpen their decision-making (Gonen et al., 2009) and team working skills through making decisions as part of small, fixed groups with the purpose of completing a set task (Tanner & Lindquist, 1998). Simulations are one example of reflexive learning, in the course of which students build greater confidence in their tacit knowledge and their own experience (Wills & Clerkin, 2009). Business games are also an example of active learning because they give the players an opportunity to use their knowledge in practice (Mitchell, 2004). They are cognitively and emotionally engaging, which has a direct impact on the learners' motivation and their joy of learning (Garris et al., 2002).

The vast majority of the research on virtual business games is conducted from the perspective of assessing the students' learning outcomes (Gonen et al., 2009). In the literature, much less attention is paid to the challenges which this teaching method poses for higher education teachers. Using virtual strategic games in teaching is based on a constructivist education paradigm, and thus requires teachers to have specific competencies to provide this type of education.

Methodological competencies of a higher education teacher in the context of educational constructivism and its principles

The need to change the approach towards using case studies, simulations and virtual strategic games in teaching business subjects also requires a change in what university teachers think about learning and teaching, as well as in the manner of designing and conducting such classes with students. The center of gravity shifts from teaching paradigms which focus on the transmission of knowledge in favor of learning paradigms which place the students' activity at the center (Barr & Tagg, 1995; Biggs & Tang, 2007; Dylak, 2009; Fear et al., 2003; Fry et al., 2009; Kember, 2009; Malewski, 2010; Ramsden, 2002; Wach, 2019b; Wright, 2011). The constructivist paradigm is increasingly present in pedagogical thought and appears to have been the most wide-spread of all learning paradigms in the last decades (Klus-Stańska, 2018; Sajdak, 2013). It is a theory which explains the process of cognition and learning, and its foundations refer to the works of scholars such as Jean Piaget, Lev Vygotsky and Jerome Bruner.

Constructivism is a theory which centers on learning and the learner. A well-turned and to-the-point understanding of learning, as seen from this perspective, can be found in a definition proposed by Stanisław Dylak (2000). Referring to the works of Peter Lloyd (1995) and Charlie Lewis (1996), he points out that "learning (…) is a self-regulatory process of dealing with the conflict between the existing personal models of the world and outside information (…) it is a process of constructing new models and representations of the world with the use of cultural tools and symbols, it is a process of continuously negotiating meanings through learning, teamwork and discourse" (p. 66).

Even though constructivism "describes and explains a 'universal' essence of cognition and learning" (Klus-Stańska, 2018, p. 136), it is not impossible to derive from its main theses some guidelines for designing and conducting classes by "determining which work methods of a teacher offer the opportunity for a better education" (Klus-Stańska, 2018, p. 136). Constructivist principles of learning could serve as a framework for teachers and educators by determining the methodology of teaching (Biggs & Tang, 2007; Fosnot & Perry, 2005; Klus-Stańska, 2010, 2019). An analysis of source literature (Biggs & Tang, 2007; Filipiak, 2012; Fosnot & Perry, 2005; Fry et al., 2009; Klus-Stańska, 2010, 2012, 2018; Ledzińska & Czerniawska, 2011; Pritchard, 2009; Sajdak, 2013) outlined the principles of constructivist teaching according to Dorota Klus-Stańska (2010, 2019), as shown below. These principles are accompanied by similar opinions expressed by other education theorists, serving as the starting point for determining the tasks of a constructivist teacher (Wach, 2019b, 2019c):

- **The basis of educational design is the student's activity.** It is important to trigger cognitive activity, encourage the student to take an action and stimulate an emotional involvement in solving a cognitive task (even if the student is awkward about the new cognitive situation) (Klus-Stańska, 2010, 2019). For the teacher's task at the initial phase of the teaching process, this consists in providing learning opportunities, activating the students' prior knowledge, motivating them and unleashing their autonomy (Olsen, 1999). This solution is proposed instead of an "introduction to the topic", which is characteristic of the transmission-based approach. A constructivist teacher is a designer and moderator of educational situations, a guide rather than a transmitter of knowledge.
- **It is crucial to place the student in problem situations which cause cognitive dissonance and stimulate internal motivation** (Klus-Stańska, 2010, 2019). The proposed tasks should be a challenge and arouse controversy, encouraging the students to make and actively verify their own hypotheses (Fosnot & Perry, 2005). A task should be non-obvious, complex and encourage the students to use various resources to solve it (Olsen, 1999).

- **What is of particular importance in the learning process is the activation of the student's prior knowledge** (Klus-Stańska, 2010, 2019). It is crucial to diagnose prior knowledge, which helps the teacher design cognitive tasks situated in the zone of proximal development. In other words, teachers need to understand from where the learners are starting to allow them to achieve the desired level and seek to correct the underlying misconceptions or gaps (Fry et al., 2009, p. 22). When students are given an opportunity to share their own resources and experiences, learning becomes contextual; one based on dialog, sharing of opinions and cooperation, so that it also reinforces the process of negotiating reality (Olsen, 1999).
- **It is important to discover what the student has in mind, rather than to guess what the teacher has in mind** (Klus-Stańska, 2010, 2019). Therefore, it seems crucial to ask questions and determine the students' models of thought, their perceptions, understandings and images of reality. A teacher encourages learners to formulate and discover rules on their own, and then to defend those views (Brzezińska, 2006; Fosnot & Perry, 2005). Therefore, a teacher supports the process of developing cognitive competencies, such as analytical, reflexive and critical thinking, which shape the learner's in-depth approach towards studying (Biggs & Tang, 2007).
- **The basis of constructivist learning is socially negotiating the understanding of reality in the learning process instead of acquiring someone else's notions** (Klus-Stańska, 2010, 2019). The task of a teacher is to create opportunities for discussing and examining the reality from different perspectives, which supports an in-depth and more insightful understanding of an issue. It also serves to build and rebuild the structures of knowledge, as well as to give one's own meanings to knowledge (Fry et al., 2009).
- **What students memorize are the cognitive procedures leading to the result, not just the result of their mental activity** (Klus-Stańska, 2010). In the constructivist approach, the process of reaching knowledge is more important than the end result, manifested as specific knowledge. This is why the teacher's task is to create a space in which students have an opportunity to explore and discover their own route and their own method of solving a problem, which precedes the explanatory and conceptual activity of the teacher (Klus-Stańska, 2010, p. 332). It is important to give students a chance to form hypotheses, ask questions, organize information according to their own criteria, compare facts, formulate associations and create metaphors. These processes support in-depth, lasting and holistic learning and contribute to the development of cognitive competencies, which humans use at every step of their life-long learning (Olsen, 1999).

- **To a large extent, learning happens at a sub-conscious level** (Klus-Stańska, 2010), so it is important to ask questions and encourage reflection, which will make it possible to name the occurring processes and increase the awareness of the acquired competencies. A teacher's task is to use various grading methods, including qualitative measuring tools, such as portfolios, essays or open questions (Angelo & Cross, 1993).
- **Mistakes made by students are a natural element of the learning process** (Klus-Stańska, 2010, 2019). A teacher should see mistakes as a result of reasoning (creating a concept of the reality), so it is important not to try to reduce or avoid them (Fosnot & Perry, 2005). It is quite the opposite: a teacher needs to be interested in the students' way of thinking and help them to travel through the process of accommodation. A teacher should not stigmatize, judge or reproach students, but instead treat "erroneous" (i.e. different) interpretations of the reality as an intellectual fact and a starting point for negotiated meanings.
- **The essence of planning the teaching process is designing the educational opportunities without determining any precise learning outcomes** (Klus-Stańska, 2010, 2019). After all, teaching consists in "creating the learner's environment, offering problem situations" (Klus-Stańska, 2010, p. 341), to which meanings will be ascribed by the students themselves. A teacher can outline the area of cognitive activity, but they cannot precisely determine the learning outcomes, which depend on the activity and course of action taken by learners, as well as their cooperation. Therefore, a teacher's task is to follow the students and to react in a flexible manner, depending on the students' interests and other needs.

The presented principles do not exhaust the list of rules important from the point of view of designing and conducting classes inspired by constructivist theses, but they serve as important guidelines in shaping the learning environment by setting tasks and roles for the teacher and for the students. They serve as a framework for a constructivist teacher. They are universal and can be helpful in the process of planning classes, regardless of the academic discipline to which a given subject belongs. In the following part of this paper, the above principles are discussed on the basis of classes that involve a business simulation.

Conducting classes with the use of business games: tasks and challenges for the teacher

The development of the methodological competencies needed to provide entrepreneurship education using a business simulation game is analyzed on the basis of a case study. Its foundation are the experiences of a group of teachers from Poznań University of Economics and Business. The case study involved unstructured in-depth interviews conducted from January to March 2020, as well as participant observation. The group of teachers comprised three people, one woman and two men. Two of them had over 20 years of experience in university teaching. They had all used conventional and modern teaching methods, such as case studies, simulation business games, movie education and project methods.

A business simulation game was first used by one of these university teachers in 2005. Since then this method had been a systemic element of every semester in any given academic year. About 15–20 students participated in each game, divided into 5 groups of 3–4 students. An average game included a sequence of managerial decisions divided into 10 consecutive rounds. When the students started the game, they each had exactly the same opportunities for making decisions. At the end of each round, they were given feedback on the state of their virtual business. It was understood that the consequences of the students' decisions depended not only on the quality of the decisions made by a given team, which reflected their managerial efficiency and whether they correctly understood the needs of the virtual market, but also on the decisions of competing teams. The most important quantitative feedback was the sales volume of a virtual business, which was determined on the basis of complex algorithms. The teachers who led the game could not affect the algorithms that determine the sales volume, because they are a part of the software code. However, they could give feedback to help students understand the causes of their results.

In the first years of experimenting with virtual strategic games, the teachers who participated in the study relied on third-party software. They then took part in the process of developing independent software for the business simulations. The key component was working on an original game scenario. From 2014 on, they only used their own software and an original game scenario when working with the students. They also shared their knowledge on the possibilities of using virtual strategic games in educational practice. Moreover, they participated in a pilot project devoted to using games while working with high-school students as part of their extra-curricular activity.

Business simulation was taught to the students of three majors in Polish and in English. The latter language version was intended for foreign students. Depending on the students' specialization, the game was used in the first or second semester of the first year of their master studies. It could be used as an independent teaching method or combined with lectures on a subject related to entrepreneurship. As a result, the number of games in one academic year was typically 4–6.

During in-depth interviews, the teachers indicated three areas of competence required to conduct classes using virtual strategic games. First of all, as

in any other subject, it was necessary to have core competencies, such as specialist competencies that involve a knowledge of strategic management, human resources management, marketing, finance or operational management, which together represented some decision areas in the game. It was required to guide the students through the business simulation. However, as opposed to the core competencies required to conduct other classes, in this case it was also necessary to be familiar with the mechanics of the game, here the software, algorithms, game scenario, etc. The next area of competence determined by the teachers were digital skills, because the game used online software to simulate the running of a business. The students entered their decisions via the player panel, whereas the teacher managed the game via the game instructor panel. All actions related to organizing the game, assigning students to teams, assigning teams to a specific game, closing subsequent decision rounds and accessing reports on the players' progress, could only be done through the software. As these two areas of competence go beyond the subject of this article, they are not discussed further.

The third group of competencies, which is the most important one with regard to the aim of this article, consisted of the methodological competencies related to designing and conducting classes with the use of games, as well as assessing the students' learning outcomes. The teachers emphasized the fact that conducting classes which apply a simulation method required a change in their attitude to teaching; to seeing the students as learners, to preparing and conducting classes and to the grading method. Given that the study participants had experienced mostly a transmission-based educational approach which relied on the behaviorist paradigm, both in the course of their own education and to a large extent also in their teaching practice, moving away from this approach in favor of a constructivist paradigm was a long-term process based on the observation of the students, their own opinions and an in-depth reflection on the opportunities provided by the different approaches towards teaching. It required a change in thinking and conduct in their work with students.

With every passing game, the teachers became increasingly convinced that using simulation strategic games required a paradigm shift from conventional to student-centered teaching. Every game had its specific dynamics, because each student had different expectations, experiences, attitudes and prior knowledge. Every group of students functioned in its own way, made different choices and had its own method of setting objectives, assigning tasks and implementing strategies. There were teams which focused mainly on competing and the results. Their strategy for the virtual business usually involved taking the offensive, with significant investments in the development of virtual products and virtual markets. Other students preferred to run a smaller business, because it gave them greater certainty that they would achieve the planned results. Even though all players were man-

agement students, they could still differ in terms of prior knowledge because at the previous stage of personal development they focused on different areas of knowledge.

The teachers emphasized that teaching competencies must be continually developed. The study participants claimed that it was an open and incomplete process (Kwaśnica, 2006) because every teaching situation was new, encouraged reflection and inspired changes in the method of conducting the classes. This development is in accordance with Kolb's learning cycle (1984). A single class that involved a business simulation game (experience) encouraged reflection on the attitude towards the classes, the manner of presenting the game rules, group dynamics, the manner of interacting with students, etc. (reflection). It inspired some thoughts about the possible directions in which classes could develop, about the expectations of the students and the manner of cooperating with them, etc. (theory), which they then implemented during the next game (practice) (Gaweł & Wach-Kąkolewicz, 2016).

The teachers stated that the constructivist approach required the greatest involvement in preparing the game and then presenting its rules and the player panel to the students. At this stage, it was required to have the methodological skills to be able to design the classes on the basis of the students' activity. When a university teacher prepared a business game, they chose a scenario, the difficulty level, the duration of the game, etc. These choices were to some extent determined by the timetable at the given university, but they were also adjusted to the level of a given student group. Since the players were masters' degree students at a university of economics, they were expected to have prior knowledge of business management strategies. At the planning stage, the teachers specified the organization and course of the classes, as well as the techniques used to assess the learning outcomes. The students were free to choose the manner of making group decisions. They could attend the classes in person and according to the timetable or meet online and complete their tasks at any place and time. The most important element was for the teacher to set the deadline for closing a given decision round.

Even though the presentation of the game scenario and the player panel was a conventional element of the class, the teachers attempted to stimulate their students' cognitive curiosity and internal motivation for work by showing them how a given teaching method differed in comparison to prevailing transmission-based teaching strategies. This meant that at the beginning they would say: "Yes, yes, we will play" or "There won't be any theories or definitions, you will make the managerial decisions while playing the game."

When the rules of such a business simulation game are presented to students, the teacher should also refer to the final grade, which is a formal element of every class. In the constructivist approach, the

teacher's task is to design educational opportunities, but it is impossible to determine the specific learning outcomes due to the fact that every game has different dynamics and the interactions within groups are unique. The methodology of conducting classes is based on the fact that the teacher creates learning situations (participation in a game), taking into account the general learning objectives, such as the ability to manage a business and the development of decision-making, teamwork or analytical skills. However, when we take into account the initial differences in the students' competencies and capabilities, as well as their varying interest in the topic, the learning outcomes depend on the individuals involved. There were students who found it difficult to obtain good results from the game, even from the beginning. In this case, their efforts were to a large extent focused on analyzing the underlying reasons and evaluating the possible ways forward. Therefore, their analytical skills and understanding of the mechanisms related to business management were developed to above average. There were also groups in which students had different ideas as to the development strategy for their virtual business, and their efforts were very strongly focused on seeking substantive arguments in management theory and on trying to convince other team members to support their own vision. Such people developed their negotiation skills, teamwork skills and knowledge of management strategies.

It was not only the acquired knowledge that was graded in class, but also the students' activities, such as making decisions, reaching an agreement as to cooperation within the group, preparing an initial strategy, discussing the final results, analyzing the situation of the virtual business after every round and analyzing the financial and sales results obtained by the company. The players could decide which activities they wanted to undertake and because they were graded for them, they to some extent participated in the grading process. Therefore, they became responsible for their learning, motivating themselves to take action and to shape their autonomy.

The study participants believed that when the game started, the role of the teacher changed from designing tasks for the students to supporting the students in developing their knowledge and business management skills. The students each had to take a series of managerial decisions related to running the virtual business. First they needed to choose a name for their business and assign responsibilities to the team members, then make decisions on operational strategies before finally making specific decisions related to developing product brands, investing in production lines and sales offices, employing people and undertaking operational activities related to production volume, product transport, marketing and finance. They worked at their own pace and the only constant was the jointly agreed moment when a given decision round was closed by the teacher, the latter also monitoring the workflow, providing feedback and asking questions to encourage cognitive exploration.

At this stage, the key methodological competence of a teacher was the ability to put the students in problem situations which caused cognitive dissonance and stimulated internal motivation. The students were used to the fact that in the educational process, teachers expected them to complete tasks in a given way and obtain a pre-established result. Therefore, the students anticipated the same approach in playing the business simulation game, but instead they faced a problem to be solved, while their teacher stressed that there were no right or wrong ways of doing it. What students heard were sentences like: "Your task is to introduce Polish chocolate to a foreign market, what can you do and how?", "You are business owners and managers, which decisions will be crucial?" or "There are no good or bad strategies, each one could be right." It was cognitively intriguing for them, because it forced them to start exploring on their own.

What was of particular significance during the simulation game was the learner's ability to activate their prior knowledge. In a virtual business game, it is assumed that the students must have adequate competencies and the required theoretical knowledge to manage a business, gained by attending other courses at their business university. They only have to apply their knowledge in practice. To activate prior knowledge, the teachers usually asked questions which referred to the students' resources: "In your opinion, what decisions need to be made first?", "What do you know about the pros and cons of the market niche strategy?", "What pricing strategies do you know and which one can you use?"

Still another methodological task of a teacher is to understand that what is memorized by the students are cognitive procedures leading to a result, rather than the outcomes of their mental activity. What is of particular importance is the ability to give the players feedback on the results obtained by their virtual businesses. At the initial stage of the class, the students expected the teachers to give them straightforward answers, because they were accustomed to such an approach in transmission-based education. However, in the constructivist approach used by the study participants, the students received feedback in the form of questions which encouraged reflection (e.g. "What do you think?", "What could be the reason behind such results?", "What could you do?", "What are the pros and cons of different solutions?"), instead of simple tips, such as: "Lower the price of the products." The essence of this approach is to form questions rather than give ready answers. It also requires seeing students' mistakes as a natural element of the learning process. The teachers who participated in the study stated that it was usually obvious for them from the very beginning what problems the players were facing and what mistakes they were making. However, giving feedback in the form of questions which encourage reflection is intended to help students look for an answer and discover it on their own, which is important from the point of view of learning.

The essence of constructivist teaching is also about recognizing the student's intentions, rather than about the student guessing what the teacher's intentions are. Especially at the beginning of the game, the players tended to seek reassurance that they had made the right decisions. In this case, the teachers answered that since it was the students' company, it was their decision and strategy that was correct, not the strategy that would be chosen by the teacher. To encourage the players to think, discussions would often start with questions like: "What are the goals of your company?" or "What is your plan for entering the market and developing your business?" The students were then guided to look for the solutions themselves, thanks to questions like: "What could be the causes behind this failure?", "What could you do to improve the situation of your virtual company?" This approach also supported the processes through which students became aware of what they had learned.

In the constructivist approach, emphasis is also placed on social negotiation of reality, which is the basis of the learning process. This is why students work in groups, often formed on the basis of the Belbin test. Cooperation in small teams fosters interactions and the activation of the learners' prior knowledge. In this process, the students have a chance to share their understanding of the reality and to negotiate the definitions of the various notions and the use of specific strategies in managing their virtual business. The students should always be encouraged to interact with each other. With time, the teacher then joins them and supplies feedback, thus becoming a fully-fledged participant in the learners' discussion.

By observing the students' reactions to the process of implementing a teaching method based on the constructivist approach, it can be noticed that at the beginning of the game the students expect the teachers to adopt a transmission-based approach of the type that they are used to, but as the semester passes, the students become much more independent and open to the new teaching method.

At the end of the study, the participants emphasized that the development of their competencies to teach in accordance with the constructivist paradigm would not have been possible if it was not for the methodological support they had received. What is more, it would not have be possible without feedback from the students and without the reflective thought which accompanied their development as university teachers.

Conclusion

The application of the constructivist model in university education requires the teacher to change their understanding of learning, teaching and the role of students and teachers. Then the teacher can implement the teaching methods and organizational forms which fall within a given teaching paradigm. The teachers from Poznań University of Economics and Business who participated in this study made

that effort and used the virtual game method, based on a simulation of running and managing a business. In the beginning, they were not fully aware of the fact that this method would to some extent "force" them to change their way of thinking and transform their methodological competencies. In their educational practice, thanks to the observation of students and themselves, in-depth reflection and sensitivity to feedback, they have changed their approach to teaching and opted for student-centered teaching. They have given up transmission-based methods and the oratory competencies required to give lectures and started to design learning opportunities and use facilitating competencies. Throughout the years of designing a virtual learning environment, they have helped hundreds of students immerse themselves in a simulated educational context so that they felt like real managers running their own business. They have put students in situations in which they had to solve many economic and social problems, have given them the right to make mistakes and have supported them in making decisions, as well as taking responsibility for these decisions. They supported the activation of students' prior knowledge to assist the students in the process of building and rebuilding their knowledge, at the same time encouraging them to reflect on their own learning process. They have engaged in an education methodology which enabled students to integrate their knowledge of economics, finance and management, giving them an opportunity to create knowledge that is coherent, holistic and durable, because they gained it on their own and also in cooperation with other learners.

The process of change in the development of methodological competencies of university teachers who conduct business classes concerned not only their tools (the use of a specific educational method). It was unconscious in the beginning, but due to various training programs, participation in educational projects and methodological support from professionals dealing with university teaching, it has become a conscious process. The university teachers who participated in this study have given up an intuitive approach and moved towards scholarship of teaching and learning (Kreber, 2002), which is among others characterized by the ability to name and explain the mechanisms of educational practice they experienced. Such a situation may be called theorization of their professional experiences, which means they are now teachers aware of the paradigm they use while conducting classes, and better understand the processes of teaching and learning.

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WE RECOMMEND

Trends in Learning 2020, Report & TrainingZone hub, The Open University, UK

In May 2020 the Open University published its annual report concerning current trends in learning. Every year since 2012, the group of experts from the Open University tracks what is new and what is changing to identify the most important developments. In this year's report, four key trends have been identified that, according to its authors, are shaping the future of learning. They are AI in education/learning, learning through open data, engaging with data ethics and learning from animations.

In reference to the report, the Open University offers a new initiative called the TrainingZone hub. Its content is versatile and up to date. There are numerous downloadable resources – whitepapers, eBooks, toolkits and reports. Another source of information is events and webinars – both live and on-demand – as well as the articles and blog posts, which are grouped in three main categories: Lead, Develop and Deliver. The hub is aimed to support L&D Professionals in organizing and delivering flexible learning which is one of the trends identified in the report.

A brief report preview is available on YouTube: **https://youtu.be/5-62aYsNfxQ** More information and the link to download the report can be found at **http://www.open.ac.uk/business/trends-in-learning-2020**, whereas the URL to TrainingZone is **https://www.trainingzone.co.uk**