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Padlet as a Modern Form of E-learning in the Context of Sugata Mitra's Research – a New Model of Education

Abstract

The aim of this article is to present the results of surveys concerning Padlet tool. The authors analyze contemporary trends in education, legal regulations and research, which are part of the new model of education. The text contains descriptions of research results from 230 surveys conducted on students in relation to three categories. The first category presents the results of the evaluation of Padlet as a tool for content segregation, the second category concerns the evaluation of Padlet in terms of the function of group work, and the third category concerns the functionality and comparison of Padlet tool with other similar tools. In the current educational situation caused by the global coronavirus pandemic SARS-Cov-2 causing the disease COVID-19, evaluation and presentation of research results related to distance learning tools and methods is very necessary.

K e y w o r d s: Padlet, ICT tools, e-learning, new model of education, Sugata Mitra, SARS-Cov-2, COVID-19, distance learning.

A New Model of Education

The term "new model of education" is very problematic because over the last 200 years it has been difficult to determine what it really means (Walat, 2010; Kopciał, 2010; Field, 2000). For example, should we consider as a model the pragmatism of John Dewey, who as the main objective saw introducing thought-provoking, action and movement enhancing activities and, in particular, activities dealing with problem situations created by teachers and the environment? Similar considerations can be made, for example, with regard to the creative attitude based on the freedom of action described by Maria Montessori (2013), or the model of education based on the cognitive development of Jean Piaget including the term of assimilation, as a mechanism for attaching new concepts to those already known to us, and the term of accommodation, i.e. the process of modifying the terms already known in order to adapt them to the environment (Richmond, 2013).

Similar doubts arise in the case of the classification of Ken Robinson's theory that school kills children's creativity (Resnick & Robinson, 2017) and Seymur Papert's constructivism which consists in the creation of various artefacts by children in order to present their ideas rather than using those proposed by the system or the teacher (Papert, 1993).

A recent example of a proposal for a new model in education presented in literature that is worth considering is Sugata Mitra's experiment known as "hole in the wall," which provides rather controversial conclusions that in the absence of supervision or formal education, children can teach each other and learn from each other if they are motivated by their peers' curiosity and interest in an experiment (Mitra, 2003). How different is Dewey's pragmatic model from Papert's constructionism? The creative freedom of a child according to M. Montessori from the killing of creativity and focusing on art according to Ken Robinson? And cannot the "hole in the wall" experiment be seen only as a well-presented model of J. Piaget's assimilation and accommodation mechanisms? The authors leave the reader with these questions, as there would be plenty of arguments for and against. However, there is one factor that differentiates these approaches. It is the ubiquitous technology with its approach to information. Currently in education, the lack of knowledge of a given topic is not as paralysing as the lack of possibility to find information on a given topic on the Internet (Morze, Spivak, & Smyrnova-Trybulska, 2014).

Today's "new model of education" is mainly based on ICT solutions (Information and Communication Technologies, including personal computers, digital television, e–mail, educational robots. Thus, ICT is about the storage, retrieval, manipulation, transmission or reception of digital data.) Therefore, children, pupils, students and adults function on two levels: the real world and the online world (Fu,

2013). The primary objective of teaching is to develop key skills in the modern world such as communication skills, teamwork, problem solving and analytical thinking. More broadly, these goals are included in the area of the use of computer thinking (Brennan & Resnick, 2012). Teaching seen as a process, not just an effect, must focus on those subjects and topics which are important to the modern world, in order to ensure that these skills are achieved. Moreover, teachers should use appropriate tools which are, on the one hand, close to the learner, i.e. understandable and acceptable to him/her, and, on the other hand, effective and contextual. It should be emphasized that in modern education a great role is played by the science of coding, programming, and above all, the science of effective search for information, such as appropriate competences convergent with Google hacking (Long, Gardner, & Brown, 2011), which are the basis for the competence of the modern human being (Noskova, Pavlova, Yakovleva, Smyrnova-Trybulska, & Morze, 2016).

The need for changes in the education system is particularly noticeable today. The global coronavirus SARS-Cov-2 pandemic, which causes the disease COVID-19, has painfully proven this. As a result of the closure of Polish primary and higher education schools, it has become necessary to switch to the remote teaching system. Unfortunately, it was not possible to do this immediately in all cases. Most of the educational institutions did not have procedures and IT systems in place that would allow for the transition to remote teaching to the extent and at the level comparable to traditional teaching. In many cases, very provisional solutions were introduced. This problem also affects many other countries of the European Union or the world in general. This confirms the validity of the research undertaken and the need to verify the current teaching system, together with the possibility of introducing new teaching tools. So that, in case of similar events in the future, it would be possible to react to them effectively and immediately.

Legal Background for the Creation of a New Model of Education

The following are the legal recommendations formulated by the European Parliament and the Council of the European Union in 2006 and its subsequent amendments. They are reflected in the emerging new model of education. In 2006, the European Parliament and the Council of the European Union adopted a document (Recommendation of the European Parliament and of the Council of December 18, 2006 on key competences for lifelong learning) which deals with key competences for lifelong learning. The Recommendation, in its subsequent amendments, invites

Member States to "develop the provision of key competences for all as part of their lifelong learning strategies, including a strategy to achieve universal literacy and to use the document": Key Competences for Lifelong Learning – A European Reference Framework (Council Recommendation of May 22, 2018). Since its adoption, the Recommendation has been one of the key reference documents for the development of competence oriented education, training and learning.

At the same time, international research, such as that carried out by the Organisation for Economic Cooperation and Development (OECD, 2016) as part of the Programme for International Student Assessment (PISA, 2015) or the Programme for the International Assessment of Adult Competencies (PIAAC, 2016) carried out by the same organisation, shows that there is a persistently high proportion of teenagers and adults with insufficient basic skills. In the 2015 PISA survey, one in five pupils had serious difficulties in achieving sufficient levels of literacy in reading with understanding, mathematical thinking or understanding of natural phenomena. In some countries, even one in three adults is able to understand and produce information and mathematical reasoning at the lowest possible level.

Overall, 44% of the EU population has little or no digital competence (19%) (OJ C of June 4, 2018), despite the significant impact of the pace of technological and digital change on our economies and societies. The rapid digital transformation of the economy means that today almost all jobs – and participation in society in general – require certain digital skills. Digital literacy is now just as important as literacy and mathematical reasoning, and Europe needs people with digital competences, who are not only able to use these technologies, but are also able to innovate and play a leading role in them.

The above document, i.e. Key Competences for Lifelong Learning – A European Reference Framework, established eight key competences: comprehension and information creation competences, multilingualism competences, mathematical competence and competence in science, technology and engineering, digital competence, personal, social and learning to learn competences, civic competences, entrepreneurial competences and cultural awareness and expression competences.

All key competences are considered equally important; each contributes to a successful life in society. Competences can be used in many different contexts and combinations. Their scope overlaps and is interlinked: aspects necessary in one field support competences in another. Skills such as critical thinking, problem solving, searching for information become universal competences for today's citizen of the world.

In summary, the documents on EU education adopted by the European Parliament recommend that reference be made to these documents in order to ensure that

young people receive initial education and training which would enable them to develop key competences so as to equip them for adult life and that adults should be able to develop and update their key competences throughout their lives. Poland adopted the concept of development only in 2013, supporting it with the preparation of a programme basis which took into account the key competences. It was not until 2017 that the core curriculum aimed at promoting mathematical and logical thinking at all levels of education from kindergarten to secondary school came into force under the Regulation of the Minister of National Education of February 14, 2017, which resulted in many significant educational implications, including those related to a greater promotion of areas of knowledge related to mathematics, logic, algorithms and programming.

The Context of Sugata Mitra's Research in Relation to the New Model of Education

Sugata Mitra conducted a project called "a hole in the wall" for 12 years. It started with an experiment in Kalkaji, New Delhi when he placed a computer in the wall, which was located on one of the streets of the city with Internet access and had a few running programs. Within a very short time, the computer was besieged by children from the nearby slums, who learned how to use it, surf the Internet and use the available programs on their own. The experiment was repeated in many places in India, Africa and also Europe, with very similar results. The main documented conclusion of the experiment is the discovery of the incredible self-learning ability of children working in small groups. Mitra called the groups of children working together a self-organized learning environment (SOLE). The experiment showed how children's learning processes take place, how their consciousness develops, and pointed to a fascinating process of building methods and ways of reaching information and constructing knowledge on one's own. The author himself was so proud and convinced of the significance of the results of his experiment, that in the introduction to one of his monographs he wrote: "I finished writing this book on the rainy day of August 15, Independence Day. However, I would like to talk about yet another day of independence: the day when we will achieve independence from an education system that is more than 2 500 years old. It's time to start this journey." (Mitra, 2013).

Mitra conducted his experiment with information technology. However, the context of its use and exploitation was different from the ways in which technology was usually introduced to schools. First of all, Mitra assumed that ICT learn-

ing does not have to take place at school, under the care of adults. Secondly, the experiment recognised that technology is, per se, transparent for children, and constitutes only a means and in no way an obstacle to learning, while learning in itself is the most important thing. Knowledge is not the result of hours spent at school and passive submission to the process of transmission of ready-made packages of information, described in detail in the curriculum. As I. Illich rightly pointed out, "learning is in fact the kind of human activity that requires the least interference from others." (Zaldívar, J. I., 2015). Knowledge is the result of taking responsibility for one's own learning, in an environment which supports students in their own development and helps them make decisions. Digitisation, on the other hand, understood as the use of technology in the learning process, is a natural consequence of creating an adequate working environment for the acquisition of information, an ability that will become a competence.

At the time when the Internet was still in its infancy, only 6% of world cultural material was digitised. Today, within a quarter of an hour, the Internet is growing by an average of 20 billion bits of data. An analogous equivalent of this number would be all the works that make up the canon of world literature. Without a shadow of exaggeration, we can therefore describe our times as "data epochs." (Zikopoulos & Eaton, 2011, p. 43).

At the beginning of the 1990s, the bandwidth of the Polish Internet was only 9600 bits per second. Currently, thanks to the investments made in recent years, the information sent via the Internet travels between Warsaw and any other city in Poland in just 2.5 milliseconds. It takes 5–10 milliseconds to get to another country in Europe and 70–90 milliseconds to get to the city on the east coast of the United States. (W. Raghupathi, & V. Raghupathi, 2014). Therefore, there is a lot of pressure from the decision-makers to create elements of a digital school. With such a large escalation of the problem of big data, diversity of presented content and information and education based on SOLE, it becomes clear that there is a need to use tools which would help us to control the segregation and reorganization of online content. One of the most common tools is Padlet, which is a kind of internet board which allows the necessary internet resources to be collected in a more systematic way.

Padlet (www.padlet.com) is an easy-to-use tool which can serve as an information board or workspace for students and teachers to collaborate on digital content. It is successfully used in gathering collections, as a place for discussion, conducting simple competitions, brainstorming, editing common stories, receiving feedback, or submitting posts and comments. And these are only a few examples of its use. On the whiteboard, you can place any multimedia files, texts, films, website addresses, pictures and photos (downloaded from one's own computer, from the Internet or taken directly from a camera).

Research Problems

Since 2015, most universities in Poland have moved to the implementation of a description of qualifications adjusted to international standards. The system is named the National Qualifications Framework (NQF) and aims to provide a clear description in the national and international context (Chmielecka, 2013). A number of changes have been implemented as a result of its introduction. One of the most significant is the requirement for the student to achieve specific qualifications through the implementation of modular and area effects in given subjects. Modular and area effects are realized by means of knowledge, skills and personal and social competences. One of the most frequently repeated competences is the ability to search for information and present it in a multimedia form.

An interesting solution to the above issues concerning NQF implementation could be the use of Padlet as a tool to perform the assumptions outlined above. It would be beneficial if the proposed solution, tool and method of working with it involved the use of the ICT platform, thus becoming a part of the "new educational model."

All questions for the test were extensively discussed by active experts on the use of teaching applications. Taking into account all the issues mentioned in this article, the following research question may be raised: Can Padlet be treated as a tool for a self-organised learning environment (SOLE)? The auxiliary questions for such a formulated research problem will include: evaluation of Padlet as a tool by users on Likert's linear scale from 1 to 5, where a higher note indicates a higher level of usefulness. A quantitative assessment prepared this way will be included in the following questions helping in the evaluation of Padlet as a tool:

1. How do you evaluate the usefulness of Padlet as a tool for gathering information available in various places on the Internet? Linear scale, e.g. from 1 (not useful at all) to 5 (very useful).
2. How do you evaluate the usefulness of Padlet as a tool for collecting various types of data (texts, photos, videos, links)? Linear scale, e.g. from 1 (not useful at all) to 5 (very useful).
3. How would you rate the usefulness of Padlet as a tool for taking notes? Linear scale, e.g. from 1 (not useful at all) to 5 (very useful).
4. How do you evaluate the usefulness of Padlet as a tool to support your learning process? Linear scale, e.g. from 1 (not useful at all) to 5 (very useful).

The next question area concerns issues related to competences in cooperating in a group:

5. Rate your willingness to use virtual whiteboards created by others. Linear scale, e.g. from 1 (I am not interested) to 5 (I would be very happy to use it).

6. Rate your willingness to share your virtual whiteboards. Linear scale, e.g. from 1 (I do not intend to share) to 5 (I am very happy to share it with others).
7. Rate your satisfaction with the fact that other people could add materials to your virtual whiteboard. Linear scale, e.g. from 1 (I am displeased, this is an unnecessary option) to 5 (I am very happy about this possibility).

The following detailed questions are related to the area of "functionality" of the use of Padlet as a tool:

8. According to your experience so far, what features are missing in Padlet's environments? Own answer.
9. According to your experience so far, what function is unnecessary in Padlet? Own answer.
10. Suggest a different use of Padlet than the one you learned in the classroom. Own answer.

The last set of detailed questions involve an evaluation of the padlet by means of questions which compare the tool with other tools used by the respondent.

11. Padlet is as intuitive/not intuitive (delete as appropriate) as:....
12. Padlet is as complicated/easy (delete as appropriate) as:...
13. A tool which is used in a traditional way that Padlet reminds me of most is the:...
14. Which other tool that you are currently using would you exchange for Padlet?

The questions formulated this way will help answer the main question: Can Padlet be treated as a tool for a self-organised learning environment (SOLE)? All respondents had previously used Padlet as a tool to supplement a topic on subjects related to the use of technology in teaching at full-time study courses.

Apart from the research questions, the questionnaire included sociometric data such as: age, gender, place of residence, subjective assessment of the respondent's financial situation, subjective assessment of IT skills, assessment of the inclination to use traditional and digital information sources. All the detailed questions have a high Alpha Cronbach level of internal consistency, which averaged at $\alpha = 0.8125$.

Sample Characteristics

Questionnaire data collection was conducted electronically through Google forms. Statistica 10 was used to compile the obtained data. The relationships between the socio-demographic questions and the relevant questions were developed using the student's T-test for dependent groups. The survey was a one-time survey.

The questionnaire consists of seven closed questions and eight open questions, including two information questions on a topic which was realized with the use of Padlet and six questions of a socio-demographic type. All respondents were made familiar with the handling of Padlet before starting the survey. The selection of the surveyed group was random.

The survey was conducted on a sample of 250 students of different levels of education. The surveyed group consisted of 250 students aged 20–22 years (M = 21.35; SD = 0.63), including 55.2% of women, N = 138 and 44.8% of men, N = 112. The survey was conducted at the University of Technology and Humanities in Bielsko-Biała and the University of Silesia in the period from 02.02.2019 to 02.03.2019 in Poland. 20 questionnaires were not fully completed, therefore they were not compiled statistically. A total of 230 questionnaires was accepted for statistical analysis.

The study was conducted on adults, with their consent. The division concerning the place of residence was as follows: areas up to five thousand inhabitants (N = 50, 21.7%), areas up to 50 thousand inhabitants (N = 90, 39.1%), areas up to 100 thousand inhabitants (N = 30, 13%), areas up to 200 thousand inhabitants (N = 50, 21.7%), areas above 300 thousand inhabitants (N = 10, 4.3%). There were affirmative answers N = 50, 21.7% to the question on preference in obtaining information in the traditional way (book, press, notes), while some N=180, 78.3% preferred digital downloading. As for the subjective assessment of the subjects' material status, N=0, 0% rated it as very low, N=0, 0% as low, N=110, 47.8% as moderate/sufficient, N=110, 47.8% as good, N=10, 4.3% as very high. The subjective assessment of competences in the use of information technologies was as follows: N=0, 0% insufficient, N=40, 17.4% permissible, N=90, 39.1% satisfactory, N=90, 39.1% as good, N=10, 4.3% as very good.

Research Results

In the assessment on the five-stage scale (Likert 1–5) Padlet was positively evaluated as a tool in the field of collecting digital information from the Internet.

The Likert scale was used, which is a symmetrical scale containing the same units on both sides of the scale. A large number of 230 respondents took part in the study. The obtained distribution of answers was normal, no significant diagonality of the distribution of answers to any of the questions was noted. We believe that a large number of respondents and a normal distribution of answers to the questions cause that measuring the significance of the difference with the use of the parametric test will not give a falsified result of the examined intergroup differences.

Due to the large number of respondents and the obtained distribution of responses, it was decided to use the parametric test to study intergroup differences.

A score of 3 was given by N=60, 26.1% respondents, 4 by N=100, 43.5% respondents, 5 by N=70, 30.4% respondents. Therefore, about three quarters of the respondents (N=170, 74%) rated the applications as good and very good. In the first question concerning the subjective evaluation of Padlet as a tool, a correlation between good and very good ratings and the place of residence was found. Respondents from cities up to 5,000 inhabitants rated Padlet as a tool more poorly D(1.3118)=83.585, p=0.0000. A similar relation with a bilateral distribution concerned subjects from areas up to 50,000 inhabitants and over 50,000 inhabitants D(1.4102)=103.55, p=0.0000. It is worth noting that none of the respondents rated Padlet negatively, i.e. 1 or 2 on the Likiert scale. At the same time, male respondents more frequently rated Padletpositively , i.e. over 3 points on the Likiert scale D(1.4118)=109.90, p=0.0000 than their female counterparts, who mostly marked 3 points D(1.2118)=73.585, p=0.0000 on the scale.
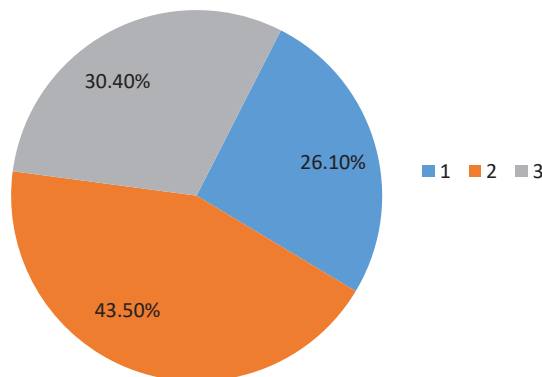

Figure 1. Assessment of Padlet as a tool for collecting resources from the Internet (Likert scale 1–5).

N o t e: 1 – Obtained result for grade 3 on the Likert scale; 2 – Obtained result for grade 4 on the Likert scale; 3 – Obtained result for grade 5 on the Likert scale.

The evaluation of Padlet as a tool for collecting digital content such as films, photos, texts, links, etc. was also high. Among the respondents N=30, 13% gave Padlet 3 points, N=120, 52.2% 4 points, which was the most frequent rating, while N=80, 34.8% gave it 5 points.

There was only one statistically significant correlation in this question, namely between the financial status of very good and the 5 point rating D(1.1251)=53, p=0.0000. It is worth noting that in this question none of the respondents gave Padlet 1 or 2 points.

The third question concerned using Padlet as a tool for taking notes. Here, the results were more dispersed on the Likiert scale: 2 points (N=20, 8.7%), 3 points (N=60, 26.1%), 4 points (N=60, 26.1%), 5 points (N=90, 39.1%). It is worth noting that the highest score of 5 was the most frequently chosen value, while 1 was not recorded. No statistically significant correlation was found in this question.

The fourth question was the last question concerning the subjective evaluation of Padlet and concerned the use of the tool as a learning aid. The result distribution in the evaluation was as follows: 2 points (N=10, 4.3%), 3 points (N=60, 20.1%), 4 points (N=90, 39.1%), 5 points (N=70, 30.4%). The lowest score of 1 was not recorded in this question. There were also no statistical correlations between socio-demographic questions and the relevant questions.

Another set of questions concerned working in a group using Padlet as a tool to perform tasks in this area (group work). The first question concerned using the tool to view tables created by other users in the group, i.e. an element related to the collection and viewing of data prepared by other people. The highest value recorded was 5 points (N=100, 43.5%), followed by 4 points (N=80, 34.8%), and 3 points (N=50, 21.7%). It is worth noting that scores 1 and 2 were not recorded in this question. In the questions concerning the evaluation of Padlet as a tool for group work, a significant statistical correlation was observed between the subjective evaluation of the subjects' own IT competences and the tendency to give a high score i.e. from 4 to 5. In the questions concerning the use of Padlet as a tool for group work, this correlation was D (1.3118)=83.185, p=0.0000) for the score of 4, while for the score of 5 it was (1.4118)=91.485, p=0.0000), respectively.
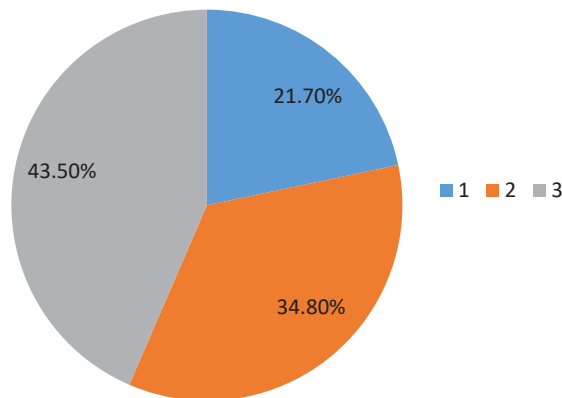

Figure 2. Assessment of Padlet as a tool for group tasks (Likert scale 1–5).
N o t e: 1 – Obtained result for grade 3 on the Likert scale; 2 – Obtained result for grade 4 on the Likert scale; 3 – Obtained result for grade 5 on the Likert scale.

The next question concerned the sharing of resources created by means of Padlet. The question, therefore, aimed to determine the tendency to share materials with the use of the tool. The lowest rating of 1, expressing a lack of willingness to share materials, was given by N=10.4.3% respondents, 2 points were given by the same number of respondents (N=10.4.3%), 3 by N=40, 17.4%, 4 by N=90, 31.9%, 5 by N=80, 34.8%, which overall gives a result of 8.6% for negative responses, 17.4% for neutral responses, and 74% for positive responses.

In the question on the respondents' opinions concerning the possibility of receiving materials for their board from other people, around 3/4 of those surveyed rated such a possibility of cooperation equally highly and positively. The distribution of responses on a scale of 1–5 was as follows: for the score of 1 (N=10, 4.3%), 2 (N=20, 8.7%), 3 (N=50, 20.7%), 4 (N=80, 34.8%) and 5 (N=70, 30.4%).

The next block included open questions about the functionality of Padlet or lack thereof. The respondents provided their proposals as responses to open questions. The answers included numerous suggestions such as: the ability to use a font of choice, sending private messages, or the ability to scale windows. These proposals, however, remained within 0.86%, therefore cannot be considered statistically significant. The largest number of responses concerned the impossibility of creating a visual side of the board (N=50, 22%).

When asked which function of Padlet is not useful, most replied that there is no function that would have to be removed (N=130, 57%). The rest of the answers were within the range of 0.86%, i.e. outside the statistically significant data range.

In the question about using Padlet for purposes other than as a multimedia board, the respondents most often mentioned such uses as: a diary, a blog on a given subject (N=130, 57%), a place for discussions and sharing materials for exams (N=50, 22%), reports from events (N=22, 10%). Other answers were statistically insignificant, i.e. within 0.86%.

The next question concerned the intuitiveness and simplicity of Padlet, which the respondents answered as follows: Padlet is a very intuitive tool (N=150, 65%), a moderately intuitive tool (N=70, 30.4%), not very intuitive (N=10, 4.3%). It is worth noting the very high value for the first answer (N=150, 65%), which correlates with the high percentage of answers from the first pool of questions, where the average of positive scores of 4 and 5, was given by an equally high percentage of respondents (N=180, 78%).

In comparison with other tools of this type in terms of simplicity and intuitiveness of use, Instagram scored (N=16, 7%), Pinterest (N=46, 20%), PowerPoint (N=49, 21%) while Prezi (N=120, 52%) in open questions. This question is open-ended and despite a number of other insignificant statistical tools such as Trello, Linoit, Pearltrees, Mind24, Mindomo, the students did not mention the competitive Moodle platform, even though everybody used it in their first year of studies.
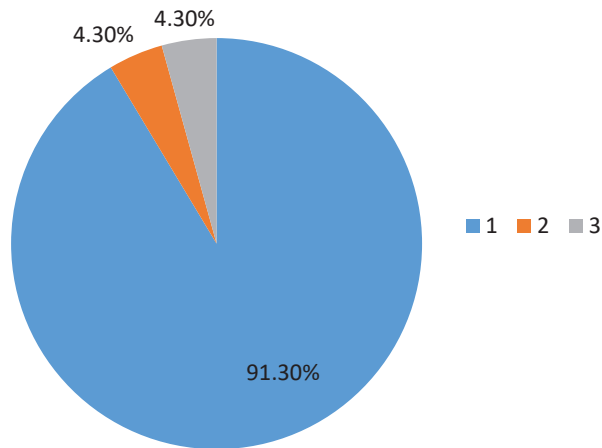
Figure 3. Assessment of Padlet's useability level (descriptive scale).

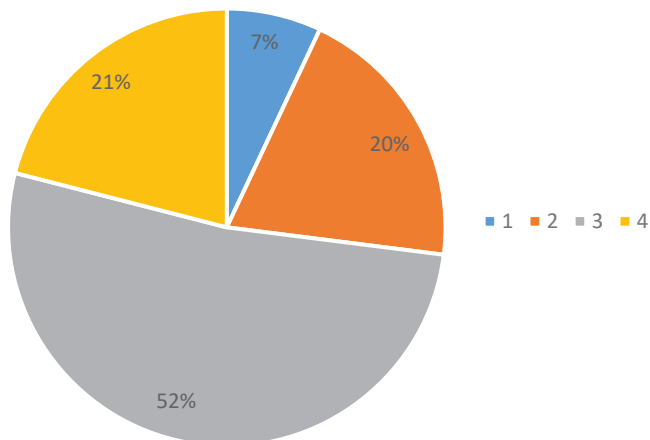N o t e: 1 – High level of useability; 2 – Medium level of useability; 3 – Low level of useability.

Figure 4. Comparison of Padlet useability to other tools (descriptive scale).

N o t e: 1 – Instagram; 2 – Pinterest; 3 – Prezi; 4 – Power Point. In the question concerning the simplicity of the Padlet as a tool, almost the majority of the respondents stated that Padlet is easy to use (N=210, 91.3%), complicated (N=l0, 4.3%), while N=l0, 4.3% claimed it is difficult to say.

The second to last question referred to the respondents' associations between Padlet as a tool and traditional analogue tools, to which the following answers were given: corkboard (N=110, 48%), notepad (N=92, 40%), binder (N=27, 125%).

The last question concerned the possibility of replacing a tool already in use with Padlet. The respondents were ready to replace their previously used tools with Padlet. These tools included: Blog (N=20, 9%), Google Disc (N=30, 13%),

Google Presentation (N=38, 17%), One Drive (N=64, 28%), Pinterest (N=70, 30%). It would appear from the results that the tools most commonly used to segregate and organize knowledge are Pinterest and Google tools. Other answers, such as Notepad, Prazi or Word, were not statistically significant, i.e. around 1.3%.

Discussion

At the beginning of the discussion, it should be noted that there are many different tools which help in the segregation and preparation of digital information. In order to assess the possibilities of such an approach, researchers had to choose one of many on the basis of the respondents' recommendations. Multimedia boards should not be treated as the main and only tool in the educational process, but the problem of the excessive amount of "Big Data" information forces the recipient to segregate and collect data, in the form of, for example, simple links redirecting to a given topic (Pedrycz & Chen, 2014).

In Polish literature there is only one publication which tries to describe Padlet as a tool with a certain potential to be used for work in higher education (Wawrzyniak-Guz, 2016). In this work, Padlet has been well evaluated both as a place to segregate and organize work and as a remote, collaborative, easy to use work environment forstudents. However, the previous study consisted in a qualitative assessment based on the direct verbal descriptions of the respondents. The author of the work did not undertake to present a quantitative approach to this issue. English language journals include many more such studies, the most frequently quoted include the work by Fuchs, B. (2014). This article is an introductory text, as it contains a general description of Padlet as a tool for educational purposes based on the example of classroom work. The author describes the tool by recommending it, but does not perform any qualitative or quantitative analysis. In other publications concerning Padlet we find a qualitative approach, which very positively assesses the role and use of Ppadlet in work at a university (Lowe & Humphrey, 2018). A quantitative approach, on the other hand, was taken up in research conducted by D. Dewitt and D. Alias (Dewitt, Alias, & Siraj, 2015). The authors present Padlet as a tool for joint learning based on the example of a debate. This study confirms its usefulness in acquiring new knowledge and joint learning in a group. In addition, students were interviewed to collect feedback on the use of the tool, and the results indicate that it is perceived positively. Another article that shows positive results in terms of its application in the learning process is a text by Q. Zhiand, M. Su (2015), which presents the results on the basis of two case studies. The

results show that Padlet can complement teaching and learning activities, help instructors to facilitate learning and pupil participation and to improve pupils' motivation and performance. From the available publications, it can be concluded that Padlet as a working tool has received high recommendations.

Conclusions

The authors of this text performed their analysis by providing a quantitative presentation of the tool in three separate contexts, i.e.: subjective evaluation of the tool, evaluation of teamwork (sharing of resources) and comparative evaluation of the tool compared to other selected tools.

In the first area of the subjective evaluation, almost 3/4 of respondents positively evaluated the padlet as a tool for sorting and collecting data. It is worth noting that in four evaluation questions the rating of 1 never appeared, while 2 occurred as a low percentage value (8.7%). This shows that the tool is very "user friendly" and shows a high level of "usability." There was a sociodemographic correlation in these questions, where residents of larger towns and cities and males provided more positive responses than other respondents.

In the second area concerning teamwork, Padlet as a tool received equally high marks as in the subjective evaluation, i.e. 4 and 5 (74%) and a very low percentage of marks 1 and 2 (8.6%), which points to the tool's usefulness in teamwork.

The last element of the evaluation involved comparing Padlet with other known tools. Here, it was also very highly rated as a tool that has many uses and which can replace the already used and popular tools such as Google Drive or Pinterest. The open questions contained in the last block of the survey confirm to a high degree (65%) the excellent functionality and intuitiveness of Padlet compared to many other popular tools which the respondents had previously used.

To summarize the above argumentation and to answer the research question posed at the beginning, it is concluded with a high level of confidence that Padlet can be considered a useful tool for a self-organised learning environment. Its potential can be successfully used and developed especially in the present times, when it has become necessary to verify the existing methods of education and seek new solutions. Assuming extended duration and wide extent of the effects of the SARS-Cov-2 coronavirus pandemic, it seems that this issue will remain relevant.

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Tomasz Kopczyński, Kamil Szpyt

Padlet jako nowoczesna forma eLearningu w kontekście badań Sugaty Mitry – nowy model edukacji

S t r e s z c z e n i e

Artykuł ma na celu prezentację wyników badań ankiet dotyczących narzędzia padlet. Autorzy dokonują analizy współczesnych trendów edukacyjnych, przepisów prawnych oraz badań, które wpisują się w nurt nowego modelu edukacji. Tekst zawiera opisy z wyników badań z 230 ankiet przeprowadzonych na studentach w odniesieniu do 3 kategorii.

Pierwsza kategoria prezentuje wyniki ocen padletu jako narzędzia służącego do segregacji treści, druga kategoria dotyczy oceny padletu pod kątem funkcji pracy w grupie, oraz trzecia kategoria dotyczy funkcjonalności i porównania narzędzia padlet z innymi podobnymi narzędziami. Obecna sytuacja w edukacji spowodowana światową pandemią koronawirusa SARS-Cov-2 powodująca chorobę zwaną COVID-19, pokazuje słuszność ewaluacja i prezentacja wyników badań związanych z narzędziami i metodami do nauczania zdalnego jest bardzo potrzebna.

S ł o w a k l u c z o w e: padlet, narzędzia ICT, eLearning, nowy model edukacji, Sugata Mitra, SARS-Cov-2, COVID-19, nauczanie na odległość

Томаш Копчиньский, Камил Шпит

Падлет как современная форма электронного обучения в контексте исследования SugataMitra – новая модель образования

А н н о т а ц и я

Целью данной статьи является представление результатов опросов, касающихся инструмента падлет (padlet). Авторы анализируют современные тенденции в области образования, правовые нормы и исследования, которые являются частью новой модели образования. Текст содержит описание результатов исследований 230 опросов, проведенных среди студентов по 3 категориям. Первая категория представляет результаты оценки работы модуля как инструмента разделения содержания, вторая категория касается оценки инструмента с точки зрения функции групповой работы, а третья категория – функциональности и сравнения инструмента падлет (padlet) с другими аналогичными инструментами. В нынешней образовательной ситуации, вызванной глобальной коронавирусной пандемией SARS–Cov–2, вызывающей болезнь под названием КОВИД–19, оценка и представление результатов исследований, связанных с инструментами и методами дистанционного обучения, весьма необходимы.

К л ю ч е в ы е с л о в а: планшет, средства ИКТ, электронное обучение, новая модель образования, Sugata Mitra, SARS–Cov–2, COVID–19, дистанционное обучение

Tomasz Kopczyński, Kamil Szpyt

Padlet como una forma moderna de e–Learning en el contexto de la investigación de Sugata Mitra – un nuevo modelo de educación

R e s u m e n

El objetivo de este artículo es presentar los resultados de los estudios sobre el instrumento de paleta. Los autores analizan las tendencias contemporáneas en la educación, las regulaciones legales y la investigación, que forman parte del nuevo modelo de educación. El texto contiene descripciones de los resultados de la investigación de 230 encuestas realizadas a estudiantes en relación con 3 categorías. La primera categoría presenta los resultados de la evaluación del padlet como herramienta para la segregación de contenidos, la segunda categoría se refiere a la evaluación del padlet en cuanto a la función del trabajo en grupo, y la tercera categoría se refiere a la funcionalidad y comparación de la herramienta de padlet con otras herramientas similares. En la actual situación educativa causada por la pandemia mundial de coronavirus SARS–Cov–2, causante de la enfermedad denominada COVID–19, la evaluación y presentación de los resultados de las investigaciones relacionadas con los instrumentos y métodos de aprendizaje a distancia es muy necesaria.

P a l a b r a s   c l a v e: padlet, herramientas de TIC, eLearning, nuevo modelo de educación, Sugata Mitra, SARS–Cov–2, COVID–19, aprendizaje a distancia