

DEPÓSITO LEGAL ZU2020000153

*Esta publicación científica en formato digital
es continuidad de la revista impresa*

ISSN 0041-8811

E-ISSN 2665-0428

Revista de la Universidad del Zulia

Fundada en 1947
por el Dr. Jesús Enrique Lossada



Ciencias de la Educación

NÚMERO ESPECIAL

Año 12 N° 35

Noviembre - 2021

Tercera Época

Maracaibo-Venezuela

Microlearning and microteaching: prospects of improvement in regions within crosscultural education

Selimov Timur Sergeyeovich*
Bogoslovsky Vladimir Ivanovich**
Kiseleva Mariya Andreevna***
Zhukova Tatyana Anatolyevna****
Motchenko Anna Nikolaevna*****

ABSTRACT

The research article explores the evolving trends in modern education, which are microlearning and microteaching. The authors analyze microlearning and microteaching as the most progressive and up-to-date approach. This article brings up the role of the globalization in the process of education encompassing crosscultural education. Although micro learning and teaching embrace many demands of modern learning and teaching, the approaches catering to the needs of students from different regions, have not been developed yet. Therefore, the main objective is to demonstrate the opportunities which microlearning offers within crosscultural education. The authors consider theoretical and empirical review of the literature and a conceptual framework to be the basic methods. The results obtained can be formulated as follows: a regional model of the micro-learning education (learning and teaching) with a set of specific character traits of students to facilitate the ideas of microeducation has been developed. This article is aimed to discuss the evolvement, current perceptions, basic principles and tools of microteaching and microlearning; to analyze their efficiency in the modern world and to suggest its further development through analysis of cross-culturalism in education using Hoffstede's dimensions including the model for regional program developing within crosscultural education.

KEY WORDS: Microteaching; regionalism; crosscultural education.

*2nd year Bachelor degree student, «Foreign Languages and IT» program, Institute of International Education Moscow State Pedagogical University, Moscow, Russia. ORCID: <https://orcid.org/0000-0003-3304-642X>

**Professor, Department of digital education, Herzen State Pedagogical University, St. Petersburg, Russia. ORCID: <https://orcid.org/0000-0001-7071-244X>

***English Language Teacher, Department of foreign languages and intercultural communication Financial University under the Government of the Russian Federation Moscow, Russia. ORCID: <https://orcid.org/0000-0001-5911-406X>

****PhD in Education, Associate Professor Department of foreign languages and intercultural communication Financial University under the Government of the Russian Federation Moscow, Russia. ORCID: <https://orcid.org/0000-0002-2184-4814>

*****Senior English Language Teacher, Higher school of contemporary social sciences, Department of social science and management of social processes, Moscow State University, Moscow, Russia. ORCID: <https://orcid.org/0000-0003-2710-2958>

Recibido: 12/07/2021

Aceptado: 08/09/2021

Microaprendizaje y microenseñanza: perspectivas de mejora en las regiones dentro de la educación intercultural

RESUMEN

El artículo de investigación explora las tendencias cambiantes en la educación moderna, que son el microaprendizaje y la microenseñanza. Los autores analizan el microaprendizaje y la microenseñanza como el enfoque más avanzado y actualizado. Este artículo plantea el papel de la globalización en el proceso educativo abarcando la educación intercultural. Aunque el microaprendizaje y la enseñanza tienen relación con muchas demandas del aprendizaje y la enseñanza modernos, los enfoques que atienden las necesidades de los estudiantes de diferentes regiones aún no se han desarrollado. Por lo tanto, el objetivo principal es demostrar las oportunidades que ofrece el microaprendizaje dentro de la educación intercultural. Los autores consideran la revisión teórica y empírica de la literatura y un marco conceptual como métodos básicos. Los resultados obtenidos se pueden formular de la siguiente manera: se ha desarrollado un modelo regional de la educación microaprendizaje (aprendizaje y enseñanza) con un conjunto de rasgos de carácter específicos de los estudiantes para facilitar las ideas de la microeducación. Este artículo tiene como objetivo discutir la evolución, las percepciones actuales, los principios básicos y las herramientas de la microenseñanza y el microaprendizaje; analizar su eficiencia en el mundo moderno y sugerir su posterior desarrollo a través del análisis del transculturalismo en la educación utilizando las dimensiones de Hoffstede, incluido el modelo para el desarrollo de programas regionales dentro de la educación transcultural.

PALABRAS CLAVE: Microenseñanza; regionalismo; educación intercultural.

Introduction

The world is changing as significantly as rapidly. The amount of information needed for being successful in one's occupation is growing year after year; hence, the matter of the best way to deliver this information turns up. What does it mean? The question how to teach and to be taught more efficiently is in the focus nowadays. Out of all models of education, microteaching and microlearning seem to be the most contemporary one, which fulfills the demands of the learners nowadays: convenient format of education, efficient use of time spent on learning and non-stop acquiring useful skills (Bruck, P.,2005; Giurgiu, Luminița,2017; Gona, Sirwan Mohammed, Karzan, Wakil, Sarkhell & Sirwan M. Nawroly, 2018). Moreover, the process of globalization has covered the sphere of education as well, making it cross-cultural. The initiatives such as Rasmus, Socrates, Tempus, Usaid, Irex, British Council,

DAAD, EduFrance that have been launched worldwide can prove this statement. This raises a question whether microlearning can be used as a part of crosscultural education. Crosscultural education requires teaching programs - *microteaching and microlearning as well* – to be adjusted for students from different regions. Crosscultural education is aimed to accomplish two goals: to improve efficiency of education by adjusting educational process for the needs of international learners and to build a community of tolerant learners. There are various models of cross cultural education, which explain how to perform communication and teaching. Among them, we can distinguish Hofstede cultural dimensions' theory.

Today crosscultural education is undergoing a number of major changes which means that researchers have to respond quickly to the newly emerging challenges. Among those are the impacts which multicultural processes may have on each region; and the advent of new educational technologies fostered by specifics of educational programs.

Although this theory of microlearning and microteaching is not concentrated on crosscultural education only, it gives perspectives for analysis of student's needs all over the world that may be taken into account in microteaching and microlearning in regions. Therefore, the question to be answered is the following: how to adjust microteaching and microlearning in regions for the demands of multicultural society of learners? The aim of the research was defined by the lack of full knowledge in the field. Thus, the research is expected to demonstrate the opportunities offered by microlearning in the context of crosscultural education and develop a set of relevant tools.

1. Methods

The literature review consists of two components: a theoretical and empirical review of the literature and a conceptual framework. The theories reviewed in this research article serve the purpose of explaining the problem of study. The empirical studies lend support to the theories, propose alternate suppositions, and highlight the need for further study. The conceptual framework identifies obstacles to the instruction of the research plan design. The research article relies on holistic systematic approach which enables to review microlearning as an integrated learning process. The structural and functional approach allows for examination of microlearning as a part of crosscultural education, identification of its main functions, outlining further prospects for development and areas for improvement.

2. Results

2.1. What has contributed to the evolvement of micro education (learning and teaching)?

By the common definition, micro education (learning and teaching) is a process of learning the material divided into «bite-sized» chunks that usually last no longer than a few minutes (up to 15), so lessons become much easier to digest and the likelihood of knowledge retention is increased (Hug, T., 2018; Jomah, O., Masoud, A.K., Kishore, X.P. & Aurelia, S., 2017). The way micro learning and teaching address short size of learning and teaching content is made up of fine-grained, interconnected and loosely coupled short learning activities, determines the focus on the individual needs (Hug, T., & Friesen, N., 2017).

Although microlearning and microteaching are known to be a modern term, it has deep roots in history. Ancient people drew rock paintings, which were small, but informative pictures, understandable instantly, illustrating how to make fire or what animals to hunt. This is the grand-predecessor of microlearning and microteaching.

After that, in Ancient Greece, Socrates presented rhetoric discipline and the art of making dialogues - the pieces that expressed the idea directly and entertainingly, keeping the listener engaged. Through the centuries, different scientists such as Plato, St. Thomas Aquinas, Comenius, J.J Rousseau, and J.F. Herbert B.F. Skinner contributed to Didactics and more effective performance of the learning and teaching processes. During the twentieth century among the other scientific breakthroughs, there were some in the above-mentioned spheres, which gave a boost to the development of what we presently know as microlearning and microteaching. For example, Leo Tolstoy in his «General notes for a teacher» stated that: «it is crucial for the content of the lesson to be entertaining and clear for student to understand it; the reason why the lesson is boring is that the explanation given by the teacher is too long and boring; it is essential not to let the student's mind to get tired, hence, the attention span of a certain pupil should be distinguished; the lesson should be in proportion with the student's level of knowledge - not too easy and not too hard».

In 1954, researches proved that the amount of information remembered in one try should be limited to make the process of learning more effective. In 1973, Sebastian Leitner came up with the idea of using flashcards for accelerated and increased learning by spaced repetition. In 1963, Hector Correa firstly used the term «microlearning» in a book «The Economics of Human Resources». Then, in 1990-s with the development of IT-technologies

and the Internet in particular the eLearning was developed, which was the direct presupposition for microlearning.

Eventually, in the 2010-s, microlearning and microteaching (Clarke, M., 2019) emerged from e-learning and was announced as the fastest growing trend in education. Nowadays it is said to be the future of the learning process, since its effectiveness in terms of fast-flowing and rapidly changing world is considerable.

2.2. Macro vs micro learning and teaching

«Indeed, microlearning often starts life as macro learning, which is distilled and repurposed to make it micro» (Lynch, 2019).

Macrolearning and microteaching is what we know as traditional learning and teaching: it involves instructors, coaches and mentors, and long-oriented approaches. We all have been exposed to macrolearning and macroteaching since school classroom. It is aimed at forming new skills from scratch, whereas microlearning and microteaching is about improving the skills the learner has already acquired (Lynch, 2010). Josh Bersin in his article «The Disruption of Digital Learning: Ten Things We Have Learned» described the learner's aim when picking macro learning and teaching as «I want to learn something new» and the learner's aim when picking micro learning as «I need help now». Moreover, he pinpointed that micro learning and teaching deal more with the problem-based cases and lets the student go «free sailing» for search of the information needed to solve the problem. Macrolearning and macroteaching is about another approach, since it engages a lot of support from tutors, teachers, classes and programs based on feedback and grades that the student gets (Lynch, 2019). Moreover, when we described macrolearning and macroteaching, we named a school classroom as the strongest association with this term, but talking about micro learning and macro teaching we cannot distinguish the exact room or place where it happens. Why? As far as micro learning and teaching are performed mostly on the Internet on the websites and in applications (Shail, 2019).

According to the classification published on learningcrafters.com, macrolearning and macroteaching is likely to be the best at: transformational programs (De Gagne, Jennie Chang; Hyeyoung; Park, Kate; Hall, Katherine; Woodward, Amanda; Yamane, Sandra & Kim Sang Suk, 2019) – training people on contemporary topics such as principles of data science,

design thinking, machine learning etc.; learning to use the organization's tool - training on how to use various software and information systems of the organization.

Regarding microlearning and microteaching, this classification states the following: «updating» knowledge and skills – New SOPs, new workplace practices, product updates and best practices; performance support – practical knowledge and information on how to perform specific tasks, delivered just in time; increasing retention (Hug, et al., 2005) – refreshers, knowledge checks and other spaced learning elements help to increase retention, even within a wider «macro learning» and «macro teaching» activity.

Another big difference is the time consumption of these different approaches. If micro learning / teaching usually takes from two to 15 (maximum) minutes, macro learning / teaching is to take up to hours. Summing up, we can say that there are some clear differences between these two methods of learning regarding time, approaches, aims and the level of knowledge of the learner. However, should we oppose microlearning and macro learning and teaching? Definitely no. They are closely interconnected and if the teacher applies both methods, it will definitely be fruitful.

2.3. Tools of micro learning and teaching. Principles of micro learning and teaching content.

What helps micro learning and teaching to be engaging and entertaining is diversity of different techniques of representing the content. Among them, we can list the following: videos (short educational videos, video tutorials and how-tos); articles; flash cards; presentations, short tests, spaced learning blogs, applications, game-based learning and teaching (Hug, T., & Friesen, N.).

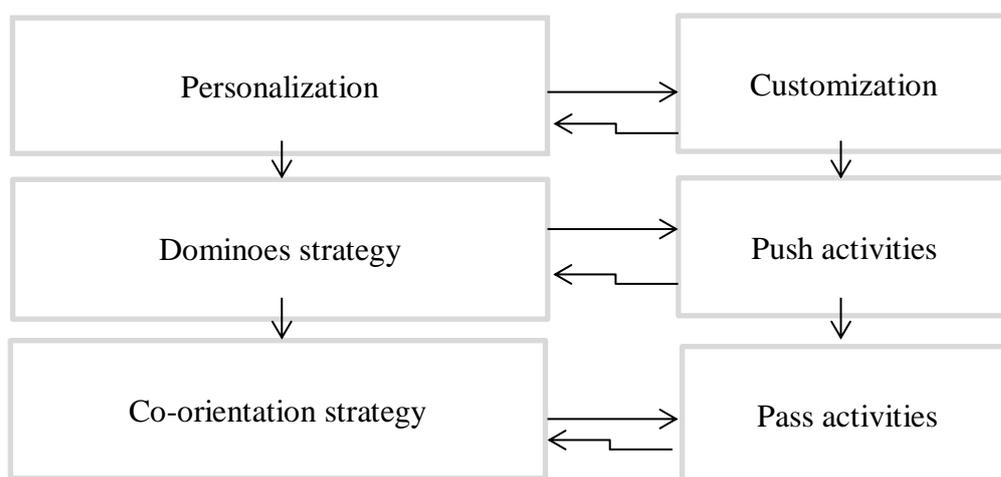
The development of mobile apps and Internet resources gave a boost to development of micro learning and teaching. Different applications and platforms are widely used to divide content into «bite-sized chunks» and create an engaging atmosphere. Here are some examples: biteable – a tool for making short videos; kahoot - the platform that you can create tests on; quizlet – perfect digital replacement for analogue flash-cards; language drops – good example how the app can be used for micro learning and teaching; ted-ed – watch brief knowledgeable videos and acquire new skills.

All of above-mentioned techniques stick to some basic principles of micro learning and teaching: the content is divided into bite-sized chunks, the content is accessible

immediately anytime and anywhere (via the Internet); learners should get a specific outcome; adaptive and personalized learning and teaching is applied. We want to draw attention on the fact that micro learning is based on personalisation and customisation of learning content accordingly to the needs different students.

From the authors' point of view, these principles come accordingly with the basic principles of micro learning and teaching in general which represent the demands of millennial learners: customized education; accessible education; on-demand education within dominoes and co-orientation strategies of cooperation in regions, which provide push and pass activities.

Scheme 1. Personalization and customization in teaching



2.4. Effectiveness of micro learning and teaching. Why is it proper for modern learners?

Micro learning and teaching have made a boom in a global society (Shail, Mrigank, S., 2019). Some specialists reckon that this approach can replace traditional way of teaching, since it is less time-consuming and more effective. This is still a controversial question, although some researches have proven the effectiveness of microeducation (learning and teaching).

In many research studies the authors state the idea on how fruitful micro learning and teaching are diving seventh grades with approximately same academic performance into two groups that studied the same subjects for 5 weeks. One group was taught using traditional

way and another using micro learning and teaching. The authors stated that: «traditional learning and teaching group showed 64% passing rate, while Microlearning group's rate 82%». Therefore, the average difference is 18% with micro learning-group leading. In addition, the researchers stated, there were no fails observed in micro learning-group, while in the class taught traditionally the failing rate went up to 36% of the students. Moreover, there were 5 times less students in a «traditional group» that in a «microlearning group» that got the top marks.

Sigh, Ravi Pratap proved that micro learning fits the demand of modern learners. Regarding using micro learning and teaching as an approach for preparing for the final exams, most learners (93%) found the time invested in learning and teaching, i.e. 10 to 15 minutes per day, as appropriate. The content was interesting to all learners and 86% enjoyed learning together in the group. The majority of learners (93%) believed that what they learned was important for their final exam. All learners stated that they felt well supported by moderators, had enough opportunities to bring in their ideas, share information and decide on what, how, when and where to learn. All participants stated they would recommend this type of exam preparation to their peers.

Adding to that, the efficiency of micro learning and teaching is «dictated» by the modern world. What difficulties does a modern learner face? At first, a huge amount of information that is to be remembered. Secondly, complexity and diversity of jobs due to the constant changes in the world. The need to act flexibly and to change and improve work as well as other purposeful activities implies a continuous necessity to learn (Sood, Isha, 2018). In addition, finally, the lack of time is one of the issues in the modern world. According to pewresearch.com, in 2018 60% of participants of the survey said they sometimes felt like being too busy to enjoy life and among working parents 56% said it was too difficult to balance job duties and family time.

Here micro learning and teaching can come in handy. Literature shows that the anytime and anyplace learning opportunity of mobiles provides several benefits for the learning and teaching environment like allowing learners and instructors to utilize their spare time while traveling to finish their homework or lesson preparation. (Bruck, 2005). It allows to make educational process flexible and self-paced, so students can return to the mistakes and improve on their previous performance, hence, complex subjects can be

mastered and give an empowerment of the learner to choose time, place and pace of learning with personalized learning (Edge, D. et al., 2012).

Next, such micro learning and teaching technologies as flash cards or short videos – so called «bite-sized chunks» do not require much time and a busy person can continue learning standing in a queue via mobile devices, for example (De Gagne, Jennie Chang et al. 2019). Finally, regarding the huge amount of information that needs to be aggregated, micro education (learning and teaching) suggests different on-demand and informative trainings that do not require a lot of time and can be easily digested by a learner within a short period. Defining microlearning (teaching) and methods it uses, Isha Sood said: «That makes micro learning opportunities able to fit into hectic schedules and busy lives without a need to pause, hoping to resume at a later time... Microlearning and microteaching typically presents somewhat a casual ambiance, allowing learners to feel that they aren't forced to commit to time/place/tools».

Basically, micro learning and teaching can be applied in every occupation: from teaching students to teaching specialists. To sum up, micro learning and teaching cannot completely replace traditional learning, it is an effective tool which fits the demands of modern learners and helps to gain considerable outcomes in academic performance and acquiring new skills. We can list the advantages of this technology: personalized (self-paced), timesaving, always accessible, engaging.

In conclusion, it should be noted that microlearning is not a completely new technology in the field of education. However, it has not been actively employed in the educational process. The relevance of the research is highlighted by the lack of studies compared to the previous attempts to identify the meaning, advantages and further prospects which the technology in question offers, including the use of the microlearning as a part of cross cultural education.

3. Discussion

3.1. How further development of microeducation may be performed

Although applying micro learning and teaching demonstrate considerable results in students' academic performance, it is an evolving trend and there are some aspects that are to be improved to make an educational process more fruitful (Soula et al, 2017).

In this article we have pointed out that *one of the micro learning and teaching concepts are customization and personalization in the meaning it can be adjusted for the needs of the students from different ethnic groups to fulfill the demands of the students personally and pursue the aim of cross-cultural education.* This adjustment can be successfully made due the high level of flexibility in most tools used for micro learning and teaching and modern technologies and researches, including Geert Hofstede's cultural dimensions, which are aimed at the analysis of multicultural society.

Another important tendency in the world education is globalization, internationalization and cross-cultural education. According to that, we can see that micro learning and teaching as a customized and a personalized approach should take into account demands and personal traits of students all over the world. How to succeed in it? Cross-cultural education is the approach in education that is aimed to uniting students from all over the world. The goal of this education is to prepare future citizens who will learn to confront critically and resist the mechanisms of manipulation, which create prejudice and stereotypes, to participate dynamically in decision making and in shaping their lives, to work individually or in groups to resolve social problems and improve the quality of life in their society and in the world. Thus, development of cross-cultural education is rather a necessity today, since it represents a key factor for efficient interaction and quality coexistence of members who culturally differ. Therefore, intercultural education plays special role in pluralistic societies.

As principles that may help in developing an open world community, increase the effectiveness of study, distinguish the following developing principles, and develop a regional microeducation program based on these principles: learning a foreign culture is, in fact, always a «two-way» process, with both groups affecting each other; communication between cultures contributes to changes within them, and it is a sort of «exchange» – readiness for responding to the presence of other forms of life; each form of exploring different cultures is also an opportunity to «explore one's own» culture.

Edward Dennehy in his work «Hofstede and learning in higher level education: An empirical study» conducted a research to find out whether Hofstede's model can be applied for analysing needs and attitudes towards education of students from different regions of the world. Although there were not many clear differences between students from different regions distinguished, the study showed us that this approach in analysis may be used and it

needs further empirical research. It may be supposed that applying Hofstede's cultural dimensions could increase the outcomes of the micro learning and micro teaching process in the regions also.

From the authors of the current research point of view, microeducation (learning and teaching) is closely interconnected with the personality of each student, since it pays close attention to the personal traits of the learner (in particular, for adjusting learning and teaching strategies, pace of studying and the aims of study). The following may be suggested: micro learning and teaching process, which has embraced the learners and teachers worldwide, might be improved if the needs of students from different countries will be analyzed and systemized. This may be performed using Hofstede's cultural dimensions. *As an outcome of such study we may gain a better overview on the demands of learners and teachers from all over the world and an understanding what approaches, forms of content and techniques are to be applied to gain better outcomes on two levels:*

- *to provide a regional model of the microlearning education (learning and teaching);*
- *to provide a set of some specific character traits of students to develop the ideas of micro-education (learning and teaching) within the overview of students' cultural differences.*

There are some specific character traits of students from different regions according to Hofstede and we need to distinguish and consider them when working out recommendations for micro learning and teaching to enhance students' performance. In the following table, we can see some recommendations for the improvement of learning and teaching process (the second and the third column) which are based on the Hofstede's dimensions.

Table 1. Overview of students' differences

Dimensions by G. Hofstede	Specific personal traits	Updating knowledge and skills	Tools
Individualism (High)	Students are more likely to speak than to listen; «I» - oriented approach;	Performing in groups; team-building	Group-quests, creating content in small groups

<p>Uncertainty avoidance (High)</p>	<p>Students want to feel sure that they will be given a clear answer in the end and all mistakes will be corrected by a teacher; students are afraid of ambiguous tasks; clear schedule and instructions during the lessons are to be applied</p>	<p>Ability to do open-ended tasks; passion to explore new things and think out of box</p>	<p>Encouraging students to use trial-and-error method; less emphasis on the marks</p>
<p>(Low)</p>	<p>Students are up to explore the learning content on their own, even if the question may be open-ended</p>	<p>Being aware of inability to solve some tasks</p>	<p>Encouraging of initiative and soothing in case of failure</p>

Conclusion

To sum it up, the authors analyzed the evolving educational technology - micro learning and teaching. According to the previously stated information and the tendency in the world education – cross-cultural education – we have assumed that micro learning and teaching could be improved if a closer attention would be drawn to the personal needs of students from different countries of the world. Basing on this theory, the model of improving micro learning and teaching has been developed, which would include analysis of needs of learners from different countries based on Hofstede's cultural dimensions, aggregating and systemizing the information, distinguishing common features of learners from different parts of the world and developing further steps for arranging educational process which would be more effective than it is now. In the position one, the further steps within the research are represented. At this point we have established the theory that micro-education (learning and teaching) may be improved with the techniques of cross-cultural education implemented.

In the position two, the first attempt for making recommendations (a model and a set of some specific character traits) for further development of micro learning and teaching model in regions in the context of cross-culturalism was made. Thus, we have distinguished the most characteristic personal traits for the students of different Hofstede's dimensions, made an analysis of what knowledge and the representatives of different groups and what tools are to be used to accomplish our aim may acquire skills. The represented recommendations that would help build more tolerant society, since the cultural distance between the students from different dimensions will be lessened if they learn and accept each other's cultural features. We believe, that the efficiency of education will be improved, since learners would become more intelligent, broadening their horizons with knowledge about different nations and people from all over the world in regions.

References

- Bruck, P. (2005). Microlearning as strategic research field: An invitation to collaborate. In *Microlearning: Emerging Concepts, Practices and Technologies after eLearning. Proceeding of Microlearning*. Innsbruck university press, P.13–17.
- Clarke, Mike (2019). History and Politics of Microlearning, 231 p.
- De Gagne, Jennie Chang; Hyeyoung; Park, Kate; Hall, Katherine; Woodward, Amanda; Yamane, Sandra & Kim Sang Suk (2019). Microlearning in Health Professions Education, *Scoping Review, JMIR Med Educ.*, no 5(2): 13997. DOI: 10.2196/13997
- Dennehy, Edward (2015). Hofstede and learning in higher-level education: An empirical study, *International Journal of Management in Education* 9(3), 323 p. DOI:10.1504/IJMIE.2015.070125
- Edge, D., Fitchett, S., Whitney, M., & Landay, J. (2012). MemReflex: adaptive flashcards for mobile microlearning, *MobileHCI'12*, September 21–24, San Francisco, CA, USA, 218 p.
- Giurgiu, Luminița (2017). Microlearning an Evolving ELearning Trend, *Scientific Bulletin*, 22(1), 19 p. DOI:10.1515/bsaft-2017-0003
- Gona, Sirwan Mohammed, Karzan, Wakil, Sarkhell & Sirwan M. Nawroly (2018). The Effectiveness of Microlearning to Improve Students' Learning Ability, *International Journal of Educational Research Review*. 3(3), P. 32-38. DOI:10.24331/ijere.415824
- Hug, T., & Friesen, N. (2007). Outline of a microlearning agenda. *Didactics of Microlearning. Concepts, Discourses and Examples*, p.1.

Hug, Theo, Lindner, Martin & Bruck, Peter A. (2005). *Microlearning: Emerging Concepts, Practices and Technologies after e-Learning.*, Innsbruck University Press, 13p.

Hug, T. (2010). Mobile learning as microlearning. *International Journal of Mobile and Blended Learning*, 154 p. DOI: 10.4018/jmbl.2010100104

Jomah, O., Masoud, A.K., Kishore, X.P. & Aurelia, S. (2017). Micro Learning: A Modernized Education System, *Broad Research in Artificial Intelligence and Neuroscience*, Vol. 7 (1), 104 p.

Lynch, Mark (2019). Microlearning or Macrolearning, what are the benefits? 156 p.

Shail, Mrigank, S. (2019). Using Micro-learning on Mobile Applications to Increase Knowledge Retention and Work Performance: A Review of Literature. – *Cureus*, 11(8), 28 p. DOI:10.7759/cureus.5307

Sigh, Ravi Pratap (2014). Awesome resources on Micro-learning, 76 p.

Sood, Isha (2018). Microlearning Research: What, How, When, 65 p.

Soula, Mitakidou, Evangelia, Tressou & Eugenia Daniilidou (2007). Cross-Cultural Education: A Challenge or a Problem? *International Critical Childhood Policy Studies*, 2(1), 70p.