

Maria Lujan Figueroa

Faculty Advisor: Jo Ann Mattson

Instructional Design and Technology

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Microlearning

Abstract

Microlearning is understood as parts of a whole, in this appreciation there are mistakes and great failures are reached. Microlearning is a small pill that can be applied at any time (just-in-time).

Microlearning could be used in extreme contexts such as the case of young people in conflict with criminal law and in populations of very low resources where education is personalized. Both contexts do not have access to technology, and I can believe that it would be an opportunity to develop, also, it is a way to maintain the student's attention, and their concentration in the subjects.

Also, micro learning can be used in catastrophe time for helping people, like now with Covid 19.

In the other hand, the students will have the attractiveness of the technology and the personalized classes. All students could work on the same topic, but with different levels of complexity. The students would be evaluated by a matrix according to achievements. Microlearning is a great tool for professional develop and it should be used for helping teachers that work in unfavorable environments, as well to all of workers. Microlearning can be formal or informal.

Resumen (Spanish)

El microaprendizaje se entiende como partes de un todo, en esta apreciación hay errores y se alcanzan grandes fallas. Microlearning es una pequeña píldora que se puede aplicar en cualquier momento (just-in-time).

El microaprendizaje podría utilizarse en contextos extremos, como el caso de los jóvenes en conflicto con la Ley penal, como también en poblaciones de muy bajos recursos donde la educación es personalizada. Ambos contextos no tienen acceso a la tecnología, y puedo creer que sería una oportunidad para desarrollarla, también, es una forma de mantener la atención del estudiante y su concentración en los cursos.

Además, el micro aprendizaje podría usarse en tiempos de catástrofe para ayudar a las personas, como es el caso de la pandemia Covid 19.

Por otro lado, los estudiantes tendrán el atractivo de la tecnología y las clases personalizadas. Todos los estudiantes podrían trabajar en el mismo tema, pero con diferentes niveles de complejidad. Los estudiantes serían evaluados por una matriz de acuerdo con los logros.

El microaprendizaje es una gran herramienta para el desarrollo profesional y debe usarse para ayudar a los maestros que trabajan en entornos desfavorables, así como a todos los trabajadores. El microaprendizaje puede ser formal o informal.

Keywords: [microlearning, adult's education, professional develop]

Methodology

Type and Method of Research

The purpose of this research is to have an approximation to the answer about microlearning and education. Is Microlearning suitable for all types of education?

For this purpose I will use the type of non-experimental research that has the characteristic of collecting data to be able to do an exploration in the field, in this case on microlearning.

This research document can be framed as an exploratory research according Hernandez Sampieri, R., et al.,(2008). It is focused on approaching the subject and would allow future research. Its characteristics are not very detailed, but it tries to find gaps and to get from these gaps, get to the first explanations on the subject.

Who talks to us about Microlearning?

Where Education Matters

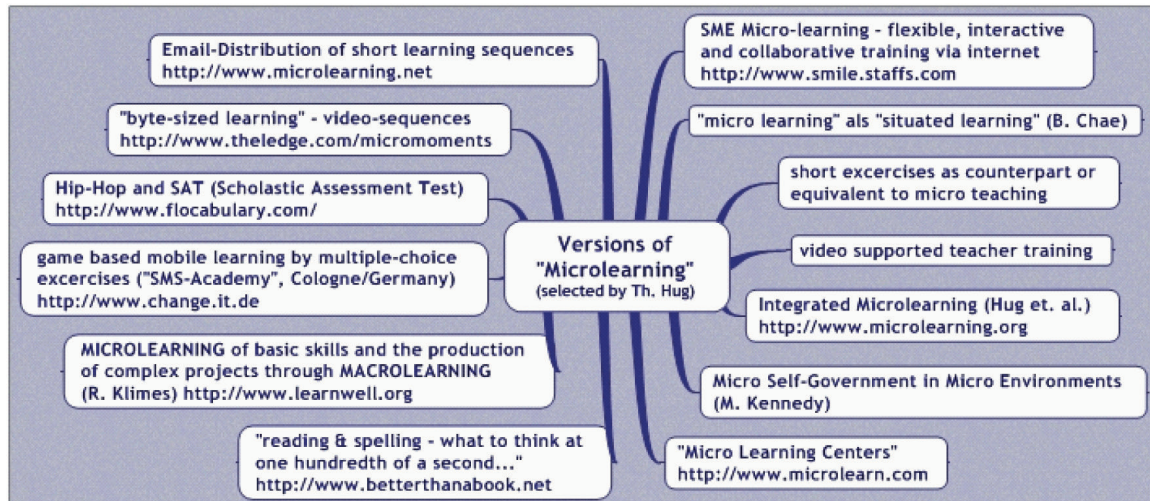
For starting :Microlearning explained in two minutes (V-1) [https://youtu.be/ C_DklqFoHs](https://youtu.be/C_DklqFoHs)

Microlearning is a tool that can be used in small deliveries of pills, permanently or almost permanently, depending on what you want to reinforce or teach. This must be accessible to the user at any time or time and attract their attention. It cannot last more than fifteen (15) minutes.

According to what has been read in Hug(2005) and MicroLearning Short and Sweet (2019)

- **Time:** reduced efforts, operating expenses, degree of time consumed, measured, subjective, etc.
- **Content:** small units, limited topics, simple aspects, etc.
- **Curriculum:** part of the configuration, modules, informal learning elements, etc.
- **Process:** separate, concomitant or real, situated or integrated activities, iterative method, attention / concentration management, awareness of being part of the process.
- **Mode:** face-to-face, multimedia, learning / information objects, symbolic and cultural value, etc.
- **Type of learning:** repetitive, active, reflective, pragmatic, conceptual, constructivist, connectivist, behaviorist, learning by example, tasks or exercises, problem-oriented or objective, action research, corporate or class learning, conscious or unconscious.

If microlearning is defined in terms of content, processes, technologies, competencies or groups of students, the key, according to Hug(2010), lies in what occurs at the smallest of levels (as opposed to levels middle or macro) I-1. From this perspective, the minutes or seconds of time are relevant instead of hours, days or months; phrases, titles or clips are the focus instead of the paragraphs, articles, programs or presentations; wearable technologies and loosely coupled distributed environments take an interest instead of integrated, monolithic turnkey systems. The notion of microlearning raises the question of proper pedagogy and didactics.



I-1 Concepts and versions of microlearning – mindmap By Th. Hug(2010)

Microlearning can be used with every learning theory, in all categories in conscience with different taxonomy but not for a cognitive domain.

Where can we use Microlearning?

In the 21st century and with the advances in technology and longevity, people learn throughout their lives. This is called Life Long Learning (LLL). In this new vision of learning throughout life, microlearning is suitable and has the possibilities of being used in different environments. For example, in primary and secondary schools, in vocational or vocational schools (plumber, bricklayer, photographer, etc.), higher education, in-company training, informal learning.

All these programs must be included within a curriculum since according to Karl & Robyn (2019) it would be a disaster to do it in a disorderly way and without a prior plan. Attention to new learning scenarios and how they are being configured is a highly important topic to understand the future of microlearning, given that it involves a set of investigations at the intersection of three perspectives (Salinas, 2012): first, the continu-

ous training (LLL) when dealing with processes aimed at the academic, professional, personal, civic and social training of the person, as well as those oriented to employment; secondly, e-learning itself and virtual learning environments supported by networks, both institutional settings, social software, personal learning environments, together with the elements of adaptation of the environments to the subject; and finally, the processes of generation and exchange of knowledge (social learning, continuous professional development).

Lifelong learning for the professional development does not end with the graduation of the individual, it continues according to curiosity, the pleasure of wanting to excel, and of knowing different contexts. This can be accomplished through guided study or self-study. In any of the two universes microlearning is adaptable as one more tool for the development of each one.

Microlearning and Covid19.

Faced with the pandemic caused by the COVID 19 virus, we are experiencing a Copernican change in our lives such as, for example, the suspension of classes, social gatherings, limited trade, working from home, etc. This situation has made us rethink ways study, work, commerce, social life and all this developing entirely through technology. In this case, the topic that concerns us is microlearning and this is an opportunity to program its use to strengthen the knowledge of the students and develop the skills of the teachers.

Also, we are all learning this is a different situation that may change the way of living for a long time. Others who can take advantage of learning small tasks are older adults who only accessed technology in the telephone format (some of them), it is an opportunity for them to learn with small tips how to use electronic banking or electronic commerce, in these moments could be a useful tool to make life easier for them, as well they can also learn to use social networks to make isolation more benevolent.

Another opportunity to use microlearning is to spread and give information about the Covid19 or other pandemic and the necessary care to try to avoid contagion (prevention tips). These tips and broadcasts could be done by health personnel and government agents.

PROTECTIVE MEASURES

Coronavirus (COVID-19)

Wash your hands
frequently and thoroughly, for at least 20 seconds. Use alcohol-based hand sanitizer if soap and water aren't available.

Cover your mouth and nose
with a tissue or into your elbow when you cough or sneeze then throw the tissue in the bin and wash your hands.

Wear a face mask
if you have respiratory symptoms or are caring for someone with respiratory symptoms. Stay home when you are ill.

Clean and disinfect
surfaces and objects that people frequently touch.

Avoid touching
your eyes, nose, and mouth with unwashed hands.

Avoid close contact
with people who are sick, sneezing or coughing.

Source | www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/coronavirus-facts-infographic

I-2 POSTER BY PIKTOCHART

Microlearning and People in Prison

I have added this section thinking about my Master's Thesis in Education, Figueroa(2008), which I wrote several years ago, on education and human rights, at that time access to prisons was moderately restricted and teachers accessed low strict control standards. At that time the "microlearning" was to leave small tasks to the students that would be picked up the next day, homework type. In the document by Halimi, M., et al(2017) on education in prisons and the motivation of students to study made me think about my practice and relate it to current microlearning . Motivation and micro goals can change the reality of those who think something different for their future. In the prison school environment, where mobility is reduced and effective time is short, microlearning can make the difference between students who are serving a sanction. It should be noted that the curriculum used in total institutions, Goffman(2006) is modified and the tool called microlearning would be potentially good.

Conclusions

In this approach to microlearning, I can conclude according to what other authors have expressed that microlearning is a tool and not a method in itself. It can be used within a larger context and appropriate to the environment where it will be used. It is very strong in the first levels of knowledge according to Bloom's Taxonomy. It is applicable as support for a general improvement plan.

Microlearning is used to remedy weak points, to change habits, to reinforce knowledge, to prevent accidents, as on. It has the characteristic of being attractive, short and of being able to be used at any time and any place, only a smartphone, tablet, or computer connected to a network is necessary.

I also consider the importance of educating people in prisons, a document that attracted me through personal experience and as a case study in the old continent. Microlearning is adaptable for that type of environment. As the prisons do not have the possibility of a personal phone because they are deprived of liberty, it could be implemented to broadcast microlearning video capsules at different times, on existing televisions within the entire institution.

Also as a suggestion, I consider that those who are teachers and have not been digitally trained have the opportunity to learn about microlearning and be able to use it for professional development.

Bibliography

Figueroa, M. (2008), Educación en el Encierro: Un Derecho Humano Insustituible. Tesis. <http://xplora.ajusco.upn.mx:8080/jspui/handle/123456789/192>

Goffman, E. (2006), **Estigma. La identidad deteriorada**, 1° ed. 10° reimp., Buenos Aires , Amorrortu Editores.

Halimi, M., Brosens, D., De Donder, L., & Engels, N. (2017). **Learning during Imprisonment: Prisoners' Motives to Educational Participation within a Remand Prison in Belgium**. *Journal of Correctional Education*, 68(1), 3–31.

Hernández Sampieri, R. , Fernández-Collado, C. y Baptista Lucio, P. (2008) **Metodología de la Investigación**. McGraw-Hill Interamericana.

Hug, T. (2010). **Mobile Learning as 'Microlearning': Conceptual Considerations towards Enhancements of Didactic Thinking**. *International Journal of Mobile and Blended Learning (IJMBL)*, 2(4), 47-57. <https://doi:10.4018/jmbL.2010100104>

Kapp, K., & Defelice, R. (2019). *Microlearning*. ATD Press.

Salinas, J. (2012): **La investigación ante los desafíos de los escenarios de aprendizaje futuros**. REd. Revista de Educación a distancia, 32 <https://www.um.es/ead/red/32/salinas.pdf>

WebSite

Gonzalez, M., Benchoff, D., Huapaya, C., Remón, C., Lazurri, G., Guccione, L., & Lizarralde, F. (2020). *Avances en la personalización y adaptación de pruebas en un ambiente virtual de aprendizaje*. Sedici.unlp.edu.ar. Retrieved 19 March 2020, from <http://sedici.unlp.edu.ar/handle/10915/73088>

National Forum on Education Statistics. (2019). *Forum Guide to Personalized Learning Data (NFES2019160)*. U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved 19 March 2020, from <https://nces.ed.gov/pubs2019/NFES2019160.pdf> .

Conferences

Hug, T. (2005). *Micro Learning and narration. Exploring possibilities of utilization of narrations and storytelling for the designing of “micro units” and didactical micro-learning arrangements*. In Proceedings of the International Conference, Media in Transition 4: The Work of Stories. Cambridge, MA: MIT Press. <http://web.mit.edu/comm-forum/mit4/papers/hug.pdf>

Images

I-1 Concepts and versions of microlearning – mindmap By Th. Hug(2010)

I-2 <https://create.piktochart.com/printable/saved/45821557>

Videos

V-1 Microlearning in two minutes https://youtu.be/_C_DklqFoHs