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CHAI AND SAUNA – THE MULTISENSORY SPACE AS AN OPEN LEARNING ENVIRONMENT

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Abstract

Interest in client-orientedness and student-centeredness has steadily increased during the past decades in different fields of service production and education. Open learning environments (OLEs) are part of this development. They are characterized by open-endedness that allows greater creativity and flexibility in terms of the learning goals and learning means. This has manifested in endless numbers of online and technologically advanced learning environments, tailored IT (information technology) based courses to suit different learners' needs and personalized study plans to allow the individual learning paths.

In addition to online environments, OLEs can also be realized, for example, by multisensory means, in real, physical surroundings. In Finland, at Laurea University of Applied Sciences, a special method called the Multisensory Space has been developed and applied since 2007. In 2009-2010, the method was further developed in a project called *Encounters in multisensory space*, receiving partial funding from The European Fund for the Integration of Third-country Nationals, and in September 2011, the next project *With All Senses – Developing Open Learning Environments (Aistien – Avoimia oppimisympäristöjä kehittämässä)* was launched to continue the development and promotion of the method, together with different operators, such as museums, adult education centers, city representatives and other Universities of Applied Sciences, lasting till December 2014.

As an open learning environment, the Multisensory Space is an easily modified space where different more permanent and temporary multisensory landscapes can be created for the purpose of creative and interactive learning, sharing and processing knowledge, memories, feelings and thoughts. The Multisensory Space also focuses on promoting multiculturalism by encouraging the immigrants to work together with natives, thus making their culture, history and stories visible. By activating the local communities, it allows the learners to get shared realizations and insights about both time and space by making it possible to travel both to the past and future, to reminisce and also to plan, visualize and dream together for a better, shared future. The Space encourages the learners to visit another reality – to become “the other” for a while, when entering, for example, a space created by an immigrant family or by members of any kind of minority.

This presentation focuses on analyzing the open learning environment possibilities offered by the Multisensory Space in terms of the foundations, values and such components as enabling contexts, resources, tools, and scaffolds. It wishes to see these traditionally often IT related OLE elements in the context of a physical open learning environment – how they can be translated in terms of the Multisensory Space and the multisensory learning possibilities provided by the shared Space creating process. Also, this presentation wishes to introduce the notion of the Multilogue, which is a multilevel, multiangle and also multicultural dialogue, typical for the Multisensory Space.

Keywords: The Multisensory Space, the Multilogue, open learning environments, multisensory learning, innovative teaching methods

1 EMPOWERING THE STUDENTS – ABOUT SOCIOCONSTRUCTIVIST CLASSROOM SETTINGS

Interest in client- and student-centeredness has steadily increased during the past years or even decades in different fields of service and education development. Constructivism-based open learning environments (OLEs) with their enabling and inspiring contexts and a variety of resources, tools and interactive learning processes are part of this development. This presentation focuses on multisensory methods and especially the Multisensory Space as an example of such open learning environments, thus emphasizing the real life spaces instead of the more common technology-enhanced or -based OLEs. Hence, also the constructivism as a background theory is more of that of socio-constructivism in the case of the Multisensory Space research, where the process of shared peer learning is in focus.

In the constructivist classroom setting, the focus is already turned from the teacher to the students who are no longer passive receivers of knowledge but rather have an active and dynamic role in their own learning process. The notion of expertise is shifted towards the students, and the knowledge is something that is negotiated between them and the teachers. Also, the prior knowledge, experiences and expertise of the students is appreciated, and the students are seen as individuals whose learning process is active by nature and consists of the personal learning history with personal motivation, personal meanings and personal ways of problem-solving.[1]

When we talk about socio-constructivism in a classroom or open learning environment, we add and emphasize, in addition to all the above mentioned facts, the element of social interaction and dialogue with peers plus the importance of cultural background that provides us with the cognitive tools needed for development. These tools include for example language skills, knowledge of cultural history, different social contexts, and different types and levels of electronic information access.

The roles of the teacher and the students in a (socio)constructivist setting are also quite radically different from the earlier models of learning where the student silently received the knowledge as poured into him or her by the superior teacher. As it is often said, constructivist teachers do not take the role of the "sage on the stage but as a guide on the side". In this way, they act as facilitators, meaning that they need to take into consideration the already existing knowledge, skills and experiences owned by the students and allowing them to test these actively and creatively, making thus new learning discoveries possible. Flexibility, assistance, sense of safety, real-world case-based and authentic learning environments and dialogue and collaboration instead of competition are some of the key words and key ideas relevant for constructivist learning settings, and this is so also when we talk about open learning environments.[2]

Students, in their turn, receive an active role of participation where they need to utilize their prior skills, experiences and knowledge and accommodate and assimilate new information, thus being in charge of their own learning process. At times, they need to be ready to change their angle and even let go of the earlier learned knowledge and patterns of information – open learning environments, such as the Multisensory Space, give many opportunities for testing and readjusting one's views, unlearning so to speak, which might be sometimes otherwise a hard task to do. So at times, unlearning needs to take place as well as testing old and new ideas within a community, with one's peer learners. Thus, the teachers or tutors are not the only actor but the students and their peers form the forum of co-operative and community-based learning.

2 THE MULTISENSORY SPACE AS AN OPEN LEARNING ENVIRONMENT

Open learning environments can be created for external or internal purposes and needs by an individual or a group. The OLE learners have always the possibility to process and monitor their learning needs and resources that include, for example, the different types of media, both electronic and printed, as well human resources from peers to teachers. At best, both peers and teachers and other professionals can provide with conceptual, metacognitive, process related and strategic support

for co-learners and students when needed, thus increasing the Vygotskyan zone of proximal development, ZPD. [2][3]

All in all in open learning environments, unlike in more traditional learning settings where the surroundings do much on behalf of the learner and the learning is seen as knowledge transfer only, the learner is the active creator of his or her whole learning process, inspired by his or her own motivation. At all points and phases, the learners are in dialogue with their own learning process and with other learners – what kind of person I am and how I want to do things, what have I learned so far, where I want to go now and by what means I want to attain my goal. In a way, such learners are in a “multilogue” with themselves, each other and their surroundings, by creating a multilevel, multiangle and multicultural dialogue and a socially constructed understanding of a theme or a topic. This is especially so in the Multisensory Space.

The concept of the Multisensory Space has been constructed and further developed in Finland, at Laurea University of Applied Sciences since 2007. In 2009-2010, the method was further developed in a project called *Encounters in multisensory space*, receiving partial funding from The European Fund for the Integration of Third-country Nationals, and in September 2011, the next project *With All Senses – Developing Open Learning Environments (Aistien – Avoimia oppimisympäristöjä kehittämässä)* was launched to continue the development and promotion of the method, together with different operators, such as museums, adult education centers, city representatives and other Universities of Applied Sciences, lasting till December 2014.

As an open learning environment, the Multisensory Space is an easily modified space where different more permanent and temporary multisensory landscapes can be created for the purpose of creative and interactive learning, sharing and processing knowledge, memories, feelings and thoughts. The Multisensory Space also focuses on promoting multiculturalism by encouraging the immigrants to work together with natives, thus making their culture, history and stories visible. By activating the local communities, it allows the learners to get shared realizations and insights about both time and space by making it possible to travel both to the past and future, to reminisce and also to plan, visualize and dream together for a better, shared future. The Space encourages the learners to visit another reality – to become “the other” for a while, when entering, for example, a space created by an immigrant family or by members of any kind of minority.

The Multisensory Space utilizes multisensory methods that are also known as VAK modalities. These three modalities or learning styles are summarized by the acronym VAK, where V stands for Visual, A for Auditory, and K for Kinesthetic. The VAK modalities engage and stimulate all the senses, thus engaging the students and learners in multiple ways. Students are often tested to analyze their learning style or VAK inclinations and based on that, the class room activities can then be modified to meet the varied needs of the students. [4] It is natural for us all to use for learning and problem solving that VAK modality or modalities where we score highest and we prefer to be consistent with them. We might even feel we have problems processing new information using any other modality than the one we feel most comfortable with. Hence, our sensory learning capacities create our learning styles, which are then, as an example, maybe more visual or kinetic by nature. Yet, the research involving these matters are still work in progress, and there are no final conclusions on VAK and best teaching and learning results so far.

Multisensory methods and techniques have also been frequently used for children and young people with different learning challenges. For example, studies from the National Institute of Child Health and Human Development in the US [5] have shown that a multisensory teaching method, where all the different senses are used, seems to be highly effective method for children who have difficulties, for example, in learning to read. Also, the students with learning difficulties might have several areas they find challenging, such as reading or writing, spelling, math, listening comprehension and other language expressions. These challenges can be anything from simple to complex, depending on the

student and the task at hand. Also, the school system of today is said to be strongly focused on either visual or auditory sensory perceptions, and even different IT solutions tend to be mainly visual, despite tablet computers and their touch screens. So the information inside and outside the classroom settings is strongly processed through different visual means.

However, multisensory methods can offer some varied ways of support and promote a more holistic learning experience for all kinds of learners. Such methods allow the students to use their personal areas of strength to help them learn more easily, faster and systematically. For learning more creative problem solving and interactive reasoning and other cognitive skills, the students are able to try out other modalities, get comfortable with them and create multisensory memories and learning experiences, while being in charge of their own learning process. In this way, the Multisensory Space offers an excellent open learning environment, which makes such experiments possible, natural and effortless. Multisensory techniques enable students to use their personal areas of strength to help them learn, yet also it makes it possible to expand their comfort zones as learners. Also, the Multisensory Space facilitates a multilevel and multiangle dialogue, or a Multilogue, attended by all the participants of the process, from peers, to teachers, to visitors and other professionals.

Open learning environments are characterized by multiple foundations, values and such components as enabling contexts, resources, tools, and scaffolds. In connection with the Multisensory Space, some of the key elements of the OLEs that become visible are authenticity, learner-centered thinking, importance of prior knowledge and experiences, different tools for communication and IT resources supporting the creation of the Multisensory Space, facilitating learning by supporting the participants and their cultural depth and critical thinking. Also, the Multisensory Space makes it possible to emphasize the individual learning efforts and individually generated learning needs, metacognitive skills development, usage of dynamically manifold resources and encouraging self-regulation and self-evaluation and peer-tutoring. [3]

2.1. Multilogue as a multilevel and multiangle dialogue in the Multisensory Space

Especially in the Multisensory Space, the learner actively creates even the learning environment itself by incorporating all the senses, and he or she then produces the materials for shared learning experience. Thus, the learners have a great responsibility and freedom concerning their learning process. As a whole, the whole learning process is strongly based on the dialogic approach, allowing the participants to engage in meaningful and interactive – both internal and external - negotiations concerning the learning goals. All the participants of the Space contribute to this Multilogue with their unique qualities, learning history, motivation, cultural knowledge and life experiences. Facilitators and peers are also important for the success of the Space and its Multilogue. Hence and summa summarum, the Multilogue is the sum of all the multiangle and multilevel dialogic elements present in the process and shared negotiation of the Multisensory Space creation.

When applied in multicultural work, the Multisensory Space and Multilogue can be oriented to the notion of reminiscence. By using all the senses, we can create inspiring and thought provoking environments, spaces where we can enter for communication, learning and sharing the memories of the so-called “other”, in case of cultures foreign to us. Hence, such spaces can represent different cultures, different times or have some other access point that is built together with all the participants, who share the creative multisensory process from planning to feedback phase. In this way, the Multilogue with its dialogic and negotiative elements can stretch from the past to the future, making the dialogue visible here and now, in the Multisensory Space.

At its best, the Multisensory Space and Multilogue can support learning by activating all VAK modalities, promoting in this way a genuinely multisensory, multilevel and multiangle dialogue. The visual mode can be applied in the Multisensory Space, for example, by using varied picture and text materials from student made videos and art images to different presentations and projection screens or visual materials that activate other senses as well from touch sensation to odors or auditory sensations. The auditory ways of learning are strengthened, for example, by speaking (as in language learning discussions), music, songs, audio based films or video clips. The tactile elements in the Multisensory Space can include textured objects, fabrics, sands, spices, anything that can be touched and felt, and also food and drink is often part of the whole multisensory experience, allowing the learners experience any kind of smells and tastes, for example, from Oriental spices to British breakfast tea and scones. For younger learners, different puzzles, finger paints, clay modeling and so on can be used for tactile learning. Kinesthetic methods with fine and gross motor movements can also be available in the Multisensory Space in the form of different physical games, dancing, rhythm-based activities and so on.

As the Multisensory Space takes the notion and possibilities of space, class room settings and open learning environments to the next level, similarly the notion of Multilogue (Fig.1) taking place within the Space extends the concept of dialogue to a level where it becomes the sum of all multisensory, multilevel, multiangle and also multicultural elements present. In this way, as an example of an open learning environment, the Multisensory Space offers unique learning opportunities for all involved in the shared Space creation process.



Fig 1. A diagram presenting some of the elements that are relevant for Multilogue when creating a shared Multisensory Space.

REFERENCES

- [1] Watson, J. (2001). Social constructivism in the classroom. *Support for Learning* 16 (3), pp.140-147. https://castl.duq.edu/Conferences/Library03/PDF/Social_Const/Watson_J.pdf
- [2] Palincsar, A. Sullivan (1998). Social Constructivist Perspectives on Teaching and Learning. *Annu. Rev. Psych.* 49, pp.351-355. <http://gsueds2007.pbworks.com/f/Palinscar1998.pdf>
- [3] Hannafin M., Land S. and Oliver K (1999). Open Learning Environments: Foundations, Methods, and Models. In C. M. Reigeluth (Ed.), *Instructional design theories and models: A new paradigm of instructional theory* (pp. 115-140). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- [4] Stewart, K.L., Felicetti, L.A. (1992). Learning styles of marketing majors. *Educational Research Quarterly*, 15(2), pp. 15-23.
- [5] National Institute for Literacy. *Developing Early Literacy. Report of the National Early Literacy Panel (2008). A Scientific Synthesis of Early Literacy Development and Implications for Intervention.* <https://www.nichd.nih.gov/publications/pubs/Documents/NELPReport09.pdf>

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