

The technological onion of MAES: a Teacher Training Course in active learning methodologies

Azenaide Abreu Soares Vieira – azenaide.vieira@ifms.edu.br
Matheus Ribeiro de Souza – matheus.ribeiro.tads@gmail.com

The adoption of active methodologies has provoked a wave of prospects for changes in the Brazilian school. In order to apply concepts of active learning methodologies related to the curriculum organization approach, whose focus is based on skills and competences, it was designed MAES Programme, implemented in a Vocational Institute in Brazil. So, the study presents the digital tools integrated into the pedagogical practice by teacher trainers during the teacher training about active methodologies MAES and it analyzes which and how technological resources were integrated into the Trainers and Students-teachers classes. The research is justified by the need of designing methodological approaches to technology integration as an instrument for mediating active learning. The methodological assumptions adopted follow the paradigm of qualitative and descriptive research.

Objectives

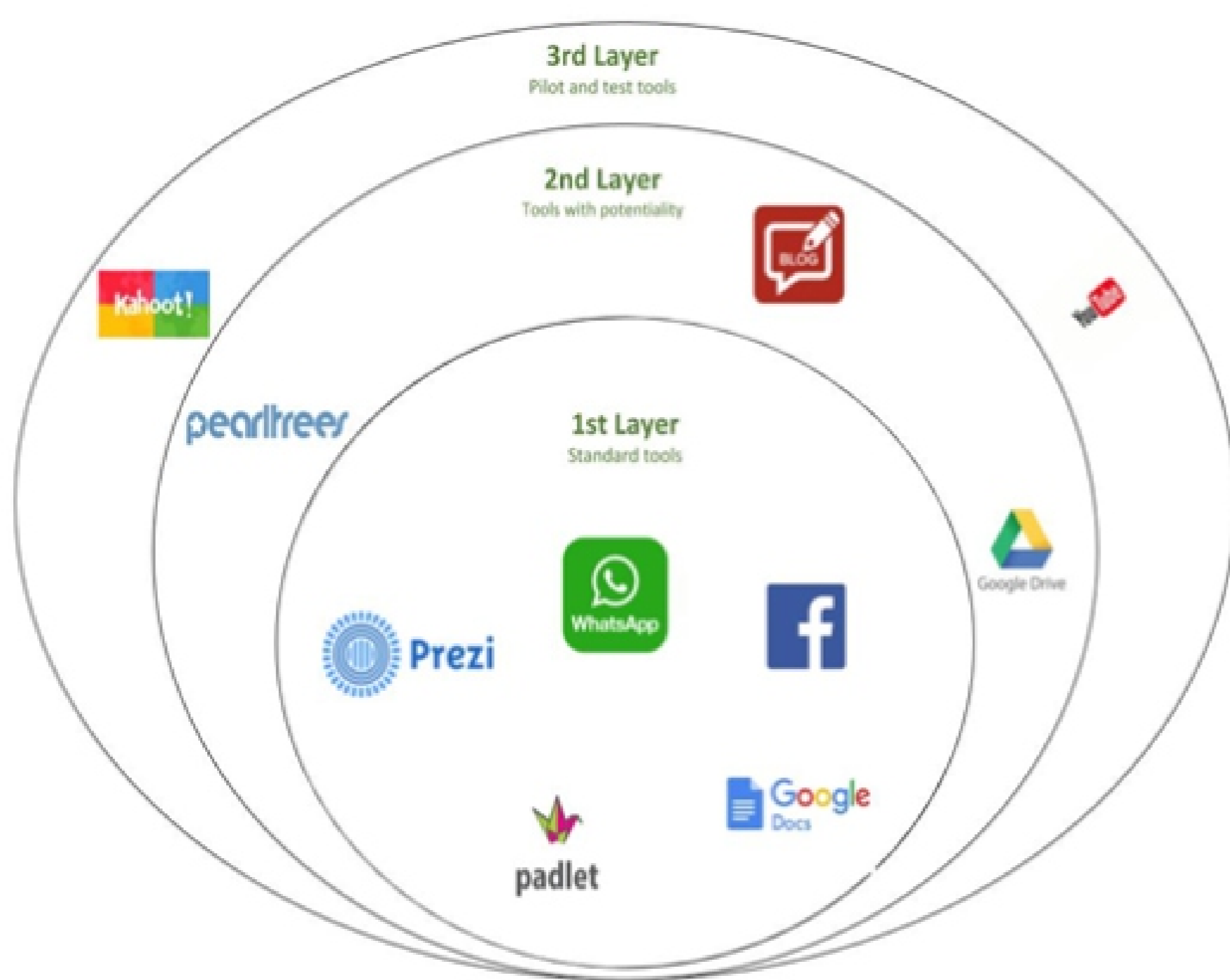
The research aims to investigate how technological digital tools were integrated in the trainers practice through active strategies and analyze the pedagogical potentialities of each digital tool used for the course students.

Methodology

First, we observed the development of some classes during MAES course. In the meantime, we made the literature review. From the classes observation we 1) developed a descriptive list of the tools used, 2) constructed and applied questionnaire, 3) organized data, 4) constructed the technological onion of MAES course.

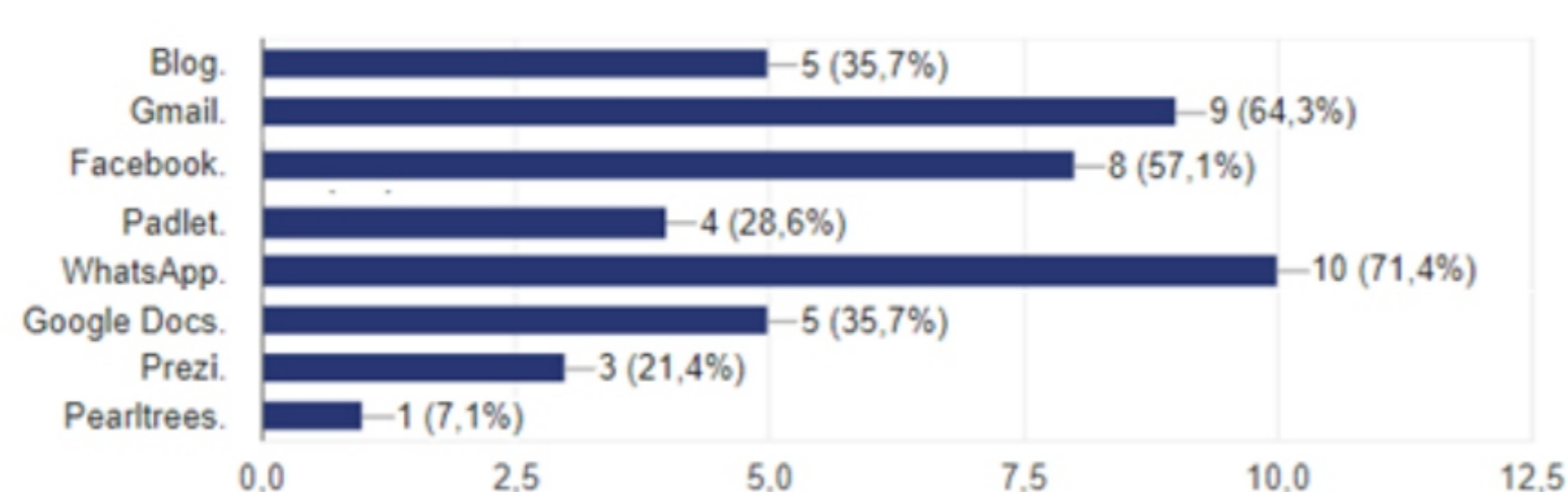
Results:

The technological onion visually presents the tools trainers integrated during MAES course are presented in picture 1:



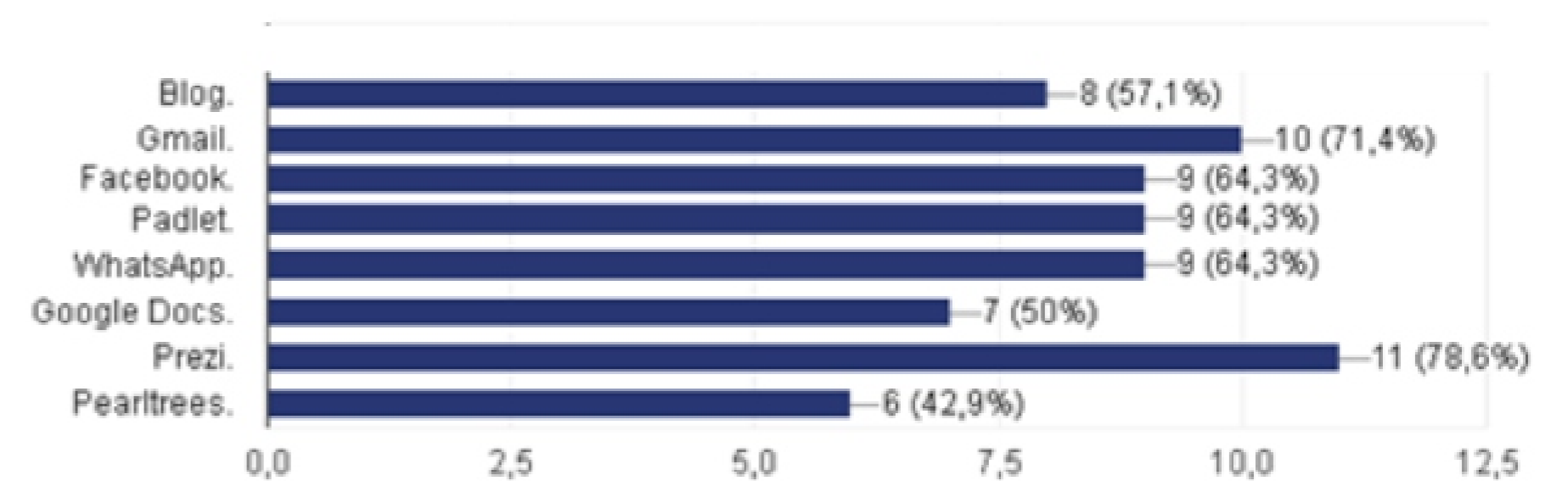
Picture 1. MAES Technological Onion

It was seen that google drive, facebook and blog have great potentiality for Trainers and Students Teachers. These results are shown in picture 2:



Picture 2. Technological tools integrated in MAES

The picture 3 reveals which tools the Students Teachers used in their classes.



Picture 3. Technological tools integrated in Students Teachers practices

Conclusion

The research enabled us to create MAES Technological Onion, formed by three layers: 1) standard tools, integrated by the teacher-trainers in order to create collaborative eportfolios of the produced material, for interaction, facilitating communication and storing support material; 2) tools potentiality, used to construct learning narratives, easy to use and with potential for use in Basic Education; 3) Pilot and test tools, used to represent which tools were studied apart and could be used in the classes for support material and dynamic classes.

It is possible to grasp the positive impact that collaboration tools offer to teaching from the use of active methodologies, provided that learning objective, methodology, assessment and learning environments. Tools that are part of the Student Teacher culture, whether for communication or entertainment, such as Facebook and WhatsApp, showed greater potential for use in Basic Education.

References

- Krathwohl, David R., and Lorin W. Anderson. A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives. Longman, 2009.
- Baartman, Liesbeth KJ, et al. "Evaluating assessment quality in competence-based education: A qualitative comparison of two frameworks." *Educational research review* 2.2 (2007): 114-129.
- Barbosa, Eduardo Fernandes, and Dácio Guimarães de Moura. "Metodologias ativas de aprendizagem na educação profissional e tecnológica." *Boletim Técnico do Senac* 39.2 (2013): 48-67.
- DELORS, J. Os quatro pilares da educação. In: DELORS, Jacques et al. (Org.). *Educação: um tesouro a descobrir: Relatório para a UNESCO da Comissão Internacional sobre Educação para o século XXI*. Brasília: UNESCO, 2010.
- Ferraz, A. P. C. M., and Renato Vairo Belhot. "Taxonomia de Bloom: revisão teórica e apresentação das adequações do instrumento para definição de objetivos instrucionais." *Gest. Prod.*, São Carlos 17.2 (2010): 421-431.
- Sampaio, Patricia Alexandra da Silva Ribeiro, and Clara Pereira Coutinho. "Avaliação do TPACK nas atividades de ensino e aprendizagem: um contributo para o estado da arte//TPACK's assessment in learning activities: contribution to the research." *Revista EducaOnline* 6.3 (2012): 39-55.
- Sigalés, Carles, and Josep M. Mominó. *La integración de internet en la educación escolar española*. Vol. 14. Fundación Telefónica, 2009.