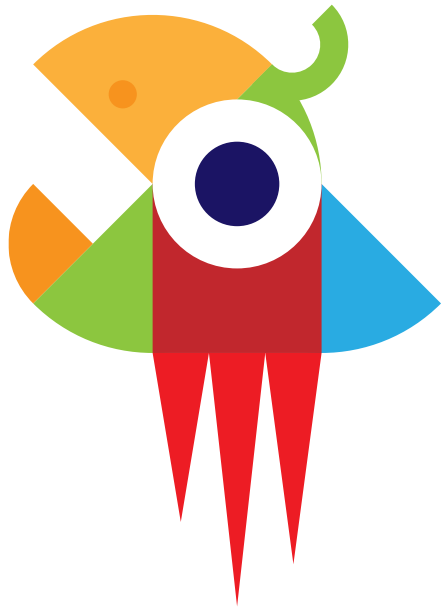
eSTEM

With the support of the Erasmus+ Programme of the European Union

A Inquiry-Based-Learning-Approach for „ scientific observations in the context of educational psychology “



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Context of the Lecture

Programm	Educational sciences of the primary and elementary education sector B.A.
Module	Reflecting on childhood in society - basics of development and socialisation
Title of course	Media Education. Dealing with media in primary school.
No. of Students	40
Language	german

Intended learning outcomes of the Sequence

- Learners (in individual or group work) …
  - … independently develop questions on scientific observations in the field.
  - … independently develop an action plan to carry out the field research.
  - … carry out the field research.
  - … describe the results of the field research in a research report.

Description of the Task - Scaffolding

The learners should develop questions in the context of socialisation and/or education in general, which they should answer as far as possible in the form of a school observation. The students receive various textbooks and video lessons for this purpose, which should enable them to make scientific observations. The learners independently plan their field research and carry it out. Finally, the learners present the results of their own field research in a research report. The teacher is available for advice at all stages of the research scenario, but only intervenes in the research process when requested by the learners.

Organisation of IBL session (learner‘s perspective)

Phase	Receive materials for scientific observation	Planning the field research	Carrying out the field research	Compilation, discussion and, if necessary, presentation of the research results	Writing a research report
Organisation	Learners organise themselves, they can consult the teacher if necessary.				
Time	Learners have two months during the course to plan and carry out the field research. Afterwards, they have another month to compile their results in a research report.				

Material provided to students

- scientific literature on the topic of “scientific observation".
    - Boer, Heike de; Reh, Sabine (2012): Beobachtung in der Schule - Beobachten lernen. Wiesbaden: Springer VS (Lehrbuch).
    - Kiper, Hanna; Meyer, Hilbert; Topsch, Wilhelm; Hinz, Renate (2011): Einführung in die Schulpädagogik. 6. Auflage [der Neuausgage]. Berlin: Cornelsen (Studium kompakt Unterricht, Schule).
    - Kretschmer, Horst; Stary, Joachim (2011): Schulpraktikum. Eine Orientierungshilfe zum Lernen und Lehren. Erweiterte und aktualisierte Auflage, 10. Auflage. Berlin: Cornelsen Scriptor (Studium kompakt Lehren lernen).

Input and Output of the SFLM

- Input
  - Ahtee, Maija; Suomela, Liisa; Juuti, Kalle; Lampiselkä, Jarkko; Lavonen, Jari (2012): Primary school student teachers' views about making observations. In: *NorDiNa* 5 (2), S. 128–141. DOI: 10.5617/nordina.346.
- Useful Output for the development of the sequence (Topic used: Observation; Support)

Q: When the majority of the teacher students speak about lack of interest , own habits and lack of practice?

S: When the student teachers tell about their own difficulties in making observations, the majority of the teacher students speak about lack of interest, own habits and lack of practice.

R: 0.99

B: analysis

Q: Whom scientific observation in this way it is influenced by?

S: Scientific observation is closely connected to procedural and conceptual understanding and in this way it is influenced by pre-existing knowledge and earlier experiences.

R: 0.61

B: synthesis

Q: Whom they are influenced by?

S: However, in science observations are used to generate further explanations and theories about observed phenomena; they require skills associated with collecting and interpreting data and are influenced by the observer's assumptions and domain knowledge (Haury, 2002).

R: 0.55

B: comprehension, knowledge, evaluation

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