

Fostering reflective thinking about information in 5th graders with blogs: how helpful are learning supports?

Jennifer THOSS

Dr Robert A.P. REUTER

Université du Luxembourg

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CONTEXT

- Bachelor Thesis
- Need for MIL training (Media and Information Literacy)
 - ICT plays an undeniable part in our society
 - digital natives do not necessarily use reflective competencies in their everyday use of ICT (Hourigan & Murray, 2010)
- Educational & scientific relevance of our study
 - 1) create/test a learning scenario that fosters MIL: effects on reflective thinking about information
 - 2) Insights into reflective thinking of 5th graders in relation with ICT

RESEARCH OBJECTIVES

- What did we want to find out?
 - how to integrate blogging in class in a way that would foster reflection about information encountered while blogging
 - practicality of the learning scenario based on learning tasks, learning supports and learning resources (Strampel & Oliver, 2008)
 - helpfulness of the learning supports

THEORETICAL FRAMEWORK

1) MIL (Media and Information Literacy)

Definition (UNESCO, 2013):

- a set of skills needed to access, understand, evaluate, use, create and share information
- acquired while using multiple tools
- in a critical, ethic and effective way
- in order to participate in private, professional and social activities

THEORETICAL FRAMEWORK

1) MIL (Media and Information Literacy)

What is already known about MIL training & assessment?

- research mainly in secondary schools and at universities
- experimentation of learning scenarios (i.e.: Strampel & Oliver, 2008)
- use of weblogs (share reflections, peer feedback)
- time consuming (for teachers and pupils)
- only a few instruments to evaluate reflective thinking (Kember et al., 2000)

THEORETICAL FRAMEWORK

2) Reflective thinking about information

Definition: “active, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that supports it and the further conclusion to which it tends” (Dewey, in Kember et al., 2000, p.384)

- takes place in situations that pose a problem / confront different perspectives
- by reviewing own experiences, considering different perspectives
- deep reflection, if the perspectives are critically analysed
- Piaget’s stages of cognitive development (concrete operational)
- reflective judgement stages (King and Kutchener, stage 2)

“reflection is an effortful action and students find it difficult to engage in it over extended periods of time without external support” (Xie et al., 2008, p. 19)

THEORETICAL FRAMEWORK

3) A learning scenario based on learning tasks, supports and resources (Strampel & Oliver, 2008)

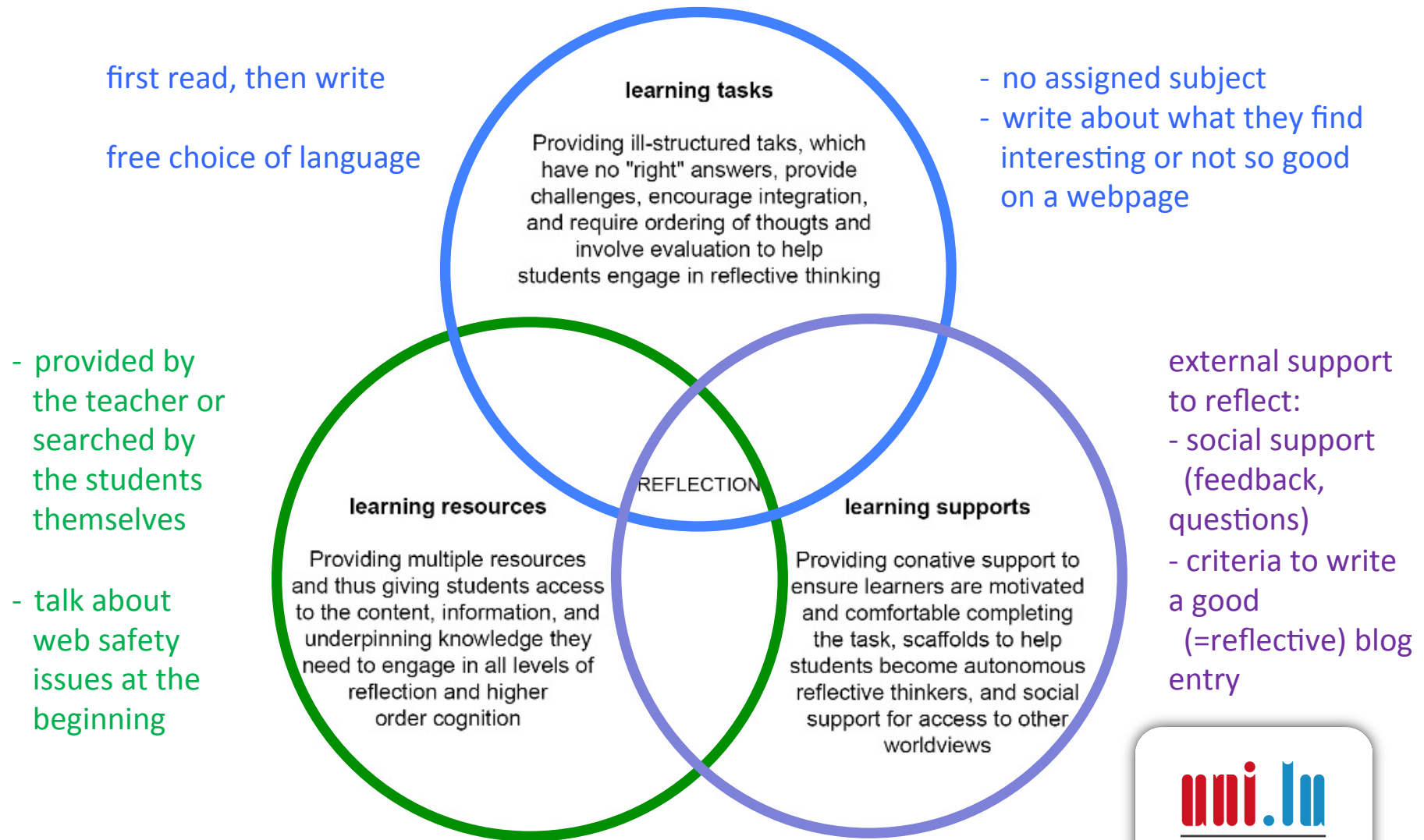
→ constructivist and problem-oriented strategy to integrate ICT

(adaptation to the pupil's knowledge and skills; learning in interaction, different perspectives, ZPD, scaffolding; realistic time frame)

→ choice of the 3 structure elements: learning tasks, learning supports, learning resources (Strampel & Oliver, 2008)

- ideal elements to foster reflection

THEORETICAL FRAMEWORK



METHODOLOGY

- learning scenario integrated in a class of thirteen 5th graders (10-12 years) (south of Luxembourg)
- before the study: questionnaire about ICT use habits
- the pupils had their own blog for 5 weeks
- the class was divided in a test and a control group
- the control group did not receive learning supports besides the peer feedback (supposedly necessary to engage in a continued reflection)
- each week one entry of every student was analysed with the help of criteria measuring the reflection on the information (2 evaluators)
- to complete the data, a research journal was kept and at the end of the study four pupils were interviewed about their experiences and impressions of the learning scenario

METHODOLOGY

- Example of evaluation:

<http://www.blinde-kuh.de/>

This page is good for the kids. It can watch videos. It can play.

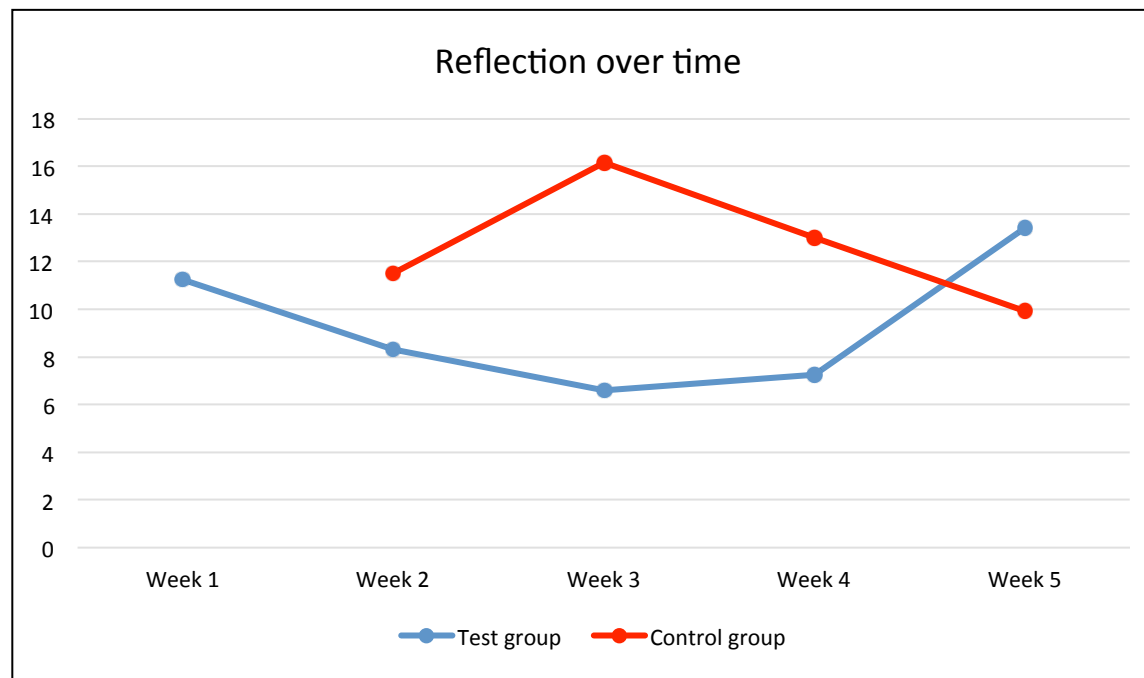
I liked it. It is cool. 😊

Criteria	Coefficient (K)	Evaluator 1		Evaluator 2	
		Points	P × K	Points	P × K
Enumeration of information	1	1	1	2	2
Link of the resource	2	2	4	2	4
Justification of the choice of the resource	3	2	6	2	6
Certainty about the information	2				
Argumentation of the accuracy of the information	3				
Personal experiences	2				
Different perspectives	2	2	4		
Critical analysis of the perspectives	3				
Personal preferences	2	1	2	2	4
Emotions	3	1	3	2	6
Organisation / Structuration	2	2	4	2	4
Propositions for amelioration	2				
decision (what one should believe or do)	3				
Total	30	11	24	12	26
Average points	Average P × K				
11,5	24,5				

RESULTS

1) The degree of reflection

- the control group's reflections in the blog entries were on average higher than those of the test group
- at the end of the study, the degree of reflection of the test group was higher



RESULTS

2) The criteria

- Elements contained in most entries:
structure, listed information, link to the source material, personal preferences
- Criteria rarely fulfilled:
Certitude about information, argumentation about their accuracy, critical analysis of different perspectives

3) Other observations

- different and recurrent subjects (writing about celebrities, chain letter stories and websites)
- reflections in the discussions amongst the students (test group > control group)
→ discussions about subjects which come from their everyday life
- diminution of the prevalent need for technical supports
- students kept asking for social supports regarding the form of their entries

CONCLUSIONS

- Possible to use the basis of learning tasks, supports and resources and adapt them to the needs of the class to promote reflective thinking skills
- Blogging is motivating the students to bring up subjects from their life and engage in reflections
- Before writing those down one should exploit the discussions with or amongst the students to make them express and become aware of their reflections
- If the students should write down their reflections, one should give them additional supports
- Why was the test group's performance poorer?

PERSPECTIVES

- Longer duration: MIL is a higher-order thinking skill, takes time to develop
- Develop blogging skills before fostering reflection
- Record oral discussion to better show the effects of test group treatment and apply criteria
- How to foster writing down? If that is the objective

THANK YOU
FOR YOUR
ATTENTION!