

Multiliteracy practices promoting information literacy in health education

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Introduction

The Finnish National Core Curriculum for basic education, in force since 2016, addresses the recent declining tendency in adolescents' reading motivation and skills by introducing the transversal competence of *multiliteracy*. Besides multimodality of texts, multiliteracy emphasizes social literacy practices and information literacy.

Collaborative knowledge building (CKB), combining *information seeking* and production of a joint artifact, is a common learning task to enhance adolescents' *information literacy* and practices (Sormunen et al. 2014). Such settings afford opportunities to learn to seek, evaluate and use information, whilst to introduce multiliteracy into classroom curriculum. Adhered to traditional instruction, some teachers may face challenges when putting into practice the ideas of multiliteracy, tending to overestimate students' abilities to independently learn information practices in groups (e.g. Sormunen et al. 2013). Accordingly, students have difficulties in credibility evaluation specifically (Limberg et al. 2008).

Theoretical framework

The elements of multiliteracy are involved in the concept of *new literacies*, referring to e.g. participation, production, and shared authority (Gee 2010). Literacies are understood as social meaning making helping learners to make sense of complex information. Multiliteracy aims to develop meaningfulness of schoolwork and learners' skills in collaborative learning. It entails information literacy aiming to enhance their critical thinking and ability to interpret, produce and evaluate divergent texts (FNBE 2014). In ever-changing online environments, it is difficult to know what to believe and who to trust in e.g. health information (Niemelä et al. 2012). According to Wilson (1983), our understanding is based on own experiences or on what we are told. However, we do not believe everything we hear, but we tend to assess the credibility of information sources, that is, *cognitive authority*, referring to expertise, reputation and trustworthiness.

In our multiple case study implying a socio-cultural approach, we examine how the ideas of multiliteracy are implemented in health education, asking:

1. How did students implement information literacy practices in their joint knowledge building?
2. What or whom did students consider their cognitive authorities regarding health information?



Teacher supports groups by scaffolding their mutual collaboration, information evaluation and knowledge building.

Method

The CKB projects were implemented in health education lessons in three classes in which 56 students in Grades 8 and 9 participated in the study. In their projects, each teacher assigned the students (14–16 years) to groups to produce a joint artifact, i.e. media content about health-related themes included as subject content in the curriculum. In Case 1, 2–3 member groups created cardboard posters on special diets and in Case 2, groups of three made PowerPoint presentations on chronic and infectious diseases. In Case 3, 4–5 member groups produced videos on the pros and cons of physical exercise. (See Table 1)

Table 1. Case features: topic, artifact and duration.

Case	N	Topic	Artifact	Duration (min)
1	17	special diets	cardboard posters	270
2	21	chronic and infectious diseases	PowerPoint presentations	270
3	18	physical exercise	document videos	550

Mixed-method data were collected using video observation, interviews with students, and a set of questionnaires. This poster presents the analysis on the video data (approx. 100 hours) focusing on collaborative literacy practices.

Based on the initial thematic analysis, we chose to focus on talk functions contributing intrinsically to the process of collaborative knowledge building, namely Fact, Experience and View (Muhonen et al. 2017). In our adapted FEV framework, we divided the factual function to three sub-aspects: Fact representational, Fact processed and Fact evaluating to identify in what terms participants evaluate information or knowledge linked to the topic.

Findings

Our study reveals the teacher's crucial role impacting success of CKB projects in terms of collaboration, information seeking and knowledge building. Other factors pivotal for effectiveness of group work were the type and difficulty of the task. Generally speaking, group talk appeared cumulative and uncritical. Cases 1 and 2 demonstrated that an adequately challenging task level promoted productive joint meaning making in groups. The groups working collaboratively managed to make sense of the complex terms of health information. In Case 3, implying low task level and absence of prompting scaffolding, group talk remained scarce and superficial. Free riding and idling occurred to increase along the project in most groups, referring to decreasing motivation to participate.

Collaborative knowledge building was guided by implicit norms of information use and giving a presentation rather than evaluating information content and its credibility even in the successfully collaborating groups. The group talk reflected an aim to update a reference list, use multiple sources, and avoid Wikipedia and direct citations, and also to avoid mere reading aloud the written texts. Cognitive authorities seemed to be given (teacher-selected printed material and Web links) or earlier taught (official Web sites of national health care authorities). In whole-class discussions of Cases 1 and 2, the teachers used the students' experiences to promote joint meaning making.

Conclusions

Case 3 specifically pinpointed tensions between traditional and current educational practices as well as control and agency. The teacher expected the groups to independently learn collaborative knowledge building and making videos, while the students prominently called for support and scaffolding. Students' skills in group interaction, collaborative knowledge building and critical credibility evaluation need to be improved. This can be addressed by taking into account the ideas of multiliteracy in all teacher education and training.

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Adolescents may feel that they are like a chameleon, because they must change their color due to the impact of information from various sources.