

# **Assessment in Knowledge Building: How to apply written feedback strategy to guide Key Stage 1 students keeping focus on the targeted topic throughout cross curricular study?**

Zhilin Ma, Tsinglan School, Dongguan, Guangdong Province, Marilynma@tsinglan.cn  
Wei Wang, Shenyang Normal University, Shenyang, China, whistlewang@hotmail.com

**Keyword:** Written feedback, knowledge building, assessment, cross curricular

## **1. Introduction**

### **1.1 Statement of the Issue:**

Nowadays, as we value more on students' voice and creativity (Bereiter & Scardamalia, 2010), Knowledge Building pedagogy has come into the spotlight in the education area internationally. The idea of Knowledge Building is to bring notes, which contain deep embeddedness, and views of different people together to create a community of knowledge (Scardamalia, 2002). While people are making connections between one idea and another, new thoughts could be emerged, and the newly created knowledge can contribute to another creation of knowledge, which is the dynamic that the 21<sup>st</sup> century has been depended on (Homer-Dixon, 2006). To help students in primary school to engage in Knowledge Building is difficult as children could hardly contribute to the community of knowledge with limited factual knowledge and too much instructions from teacher. However, students in primary school do need certain guidance from others to help them focusing on one topic and digging deeper into that area. Assessment for learning (AfL) would be a perfect tool for teachers to assist primary students in Knowledge Building. AfL is known as formative assessment, which focus solely on the process that learners are making instead of the final result (Isaacs et al., 2013; Lambert & Lines, 2000). One of the most valuable aspects of AfL is the feedback provided by participants, including both teacher and students (McDowell et al., 2010). As it is claimed by Bramwell-Lalor and Rainford (2016), feedback could lead to a more positive attitude and a higher responsive rate to discussion. Discussion is one of the important elements in Knowledge Building as it could inspire the process of linking ideas and creating new knowledge (Scardamalia, 2002). To engage students in the active formative assessment could be one of the practical solutions to Scardamalia's idea of moving ideas to the center of a classroom instead of activities (2002).

### **1.2 Real Life Situation:**

I valued feedback in my own classroom, especially written feedback. I had two different class. In my primary one Math lesson, I marked students' homework and gave feedback every time. Though there was no guaranty that students were going to read and respond considering their young age, for one of my class, more than half of the students responded to the comment and questions I wrote. For example, a student had all the answers right for two-digit addition question but did not show the steps of doing the work. I praised his effort and challenged him with a further question (one three-digit number adding a two-digit number). He answered my questions with expended form and he got the answer correctly. From this dialogue, I could see he has mastered the concept of number and understand the idea of addition. Furthermore, by answering my questions, he made connection between the method of using expended form and calculation skills. Therefore, he made further development in his knowledge building. However, in the other class, I had less responding rate, I found that students are still stragglng with two-digit number addition and I had a hard time finding out the reasons. Therefore, written dialogues visualized the progress students were making, and helped me identifying the ideas they have in mind. With this information, I could better guide students to build their community of knowledge. Hence, it is intriguing to find out how to apply written feedback strategy to guide Key Stage 1 students keeping focus on the targeted topic throughout cross curricular study.

### **1.3 Research question:**

How to apply written feedback strategy to guide Key Stage 1 students keeping focus on the targeted topic throughout cross curricular study?

### **1.4 Major Goals:**

1. To stress on the concerns of practical problems of implementing Knowledge Building in primary classroom through AfL.
2. To introduce assessment for learning in the context of Knowledge Building and underline the advantage of using AfL.
3. To build up ideas on the ways teacher could use AfL in classroom to assist students building the community of knowledge.

## **2. Methodology**

### **2.1 Preparation**

For the preparation stage, observation and interviews is being carried out. The main aim of the pre-research stage is to help narrowing the focus of the following research from written feedback to 1-3 specific strategies. Corresponding with the research, the main goal is to find out written feedback strategies that have top three response rate. The higher the rate is, the more meaningful the strategy could be to Knowledge Building. To better serve the aim, a mixed method research has been designed. This preparation stage should be 35-40 weeks depending on the frequency of cross curricular activities.

All the participants are grade one, and they come from the same class of an international primary school. Observations focus on different written feedback strategies that has been used throughout cross curricular activities, and the number of responses that students give. The interviews focus on the purpose of the designed feedback strategies. The interviewee is the classroom teacher who implements all the activities.

For data collection, all different feedback strategies that will be used in the classroom will be noted down, and the number of times the strategies have been used will be written down in the observation note. Also, the number of responses each strategy gets will be counted and noted down. For interviews, semi-structured interviews will be conducted after each cross curricular activity finished. Transcripts will be collected.

Data from observations will be transferred into percentage showing students' respond rate to each feedback strategy. Data from interview will be analyzed alongside the percentage of the respond rate.

At the end of the preparation stage, three feedback strategies should be selected for the action research.

### **2.2 Participants**

This research is going to an action research. All of the participants will be primary one student in my class, which should be around 20 students. Ethic forms will be signed by both parents and students before the research take place. The time period of each round of the action research should be 16 to 20 weeks.

### **2.3 Data collection and analysis**

All the written feedback will be collected and cataloged based on the topic of the cross curricular activities. The written feedback includes feedback for homework, quizzes, activities, tasks and peer evaluation. These data will be stored in a safe laptop with password protection, and the original data will be kept for two years after the researcher is finished.

### **2.3 Clear Description of Audience Engagement:**

In this session, we invite all the participants to contribute to the area of the usage of assessment, and build up a basic community of knowledge under this topic. This session will consist of three sections:

1. A brief presentation on the advantages of engaging assessment for learning into the process of Knowledge Building for students in primary school.
2. Group discussion on the usage on AfL that could be implemented into primary classroom with efficiency under the context of Knowledge Building.
3. Collecting and building up ideas to produce a summary for the KBSI database.

## **References:**

- Bereiter, C., & Scardamalia, M. (2010). Can children really create knowledge? . *Canadian Journal of Learning and Technology/La revue canadienne de l'apprentissage et de la technologie*, 36(1).
- Bramwell-Lalor, S. & Rainford, M. (2016) Advanced level biology teachers' attitudes towards assessment and their engagement in assessment for learning. *European Journal of Science and Mathematics Education*. 4 (3), 380-396.

- Homer-Dixon, T. (2006). *The upside of down: Catastrophe, creativity, and the renewal of civilization*. Washington, DC: Island Press.
- Isaacs, T., Zara, C., Herbert, G., Coombs, S. J., & Smith, C. (2013). *Key Concepts in Educational Assessment*. London: SAGE.
- Lambert, D., & Lines, D. (2000). *Understanding assessment*. London: Routledge Falmer.
- McDowell, L., Wakelin, D., Montgomery, C. & King, S. (2011) Does assessment for learning make a difference? The development of a questionnaire to explore the student response. *Assessment & Evaluation in Higher Education*. 36 (7), 749-765.
- Scardamalia, M. (2002). Collective cognitive responsibility for the advancement of knowledge. *Liberal education in a knowledge society*, 97, 67-98.