CAIS Paper: Validating a Model for Information Literacy Instruction for Elementary School Students: A Study

Valerie Nesset (University at Buffalo)

Abstract: A qualitative study was conducted with third-grade students to validate and ascertain the efficacy of an empirically-based model integrating features from research into information-seeking behavior and information literacy and specifically developed for information literacy instruction of younger elementary school students.
Resumé:

As part of a doctoral dissertation and as a direct result of empirical research with third-grade children, a model of their information-seeking behavior was developed (Nesset, 2009). Over the following three years, as a result of working collaboratively with two school library media specialists, the original model was revised, adding to the concepts which emerged from the original research concepts reported in the literature concerning research into information-seeking behavior (e.g. Kuhlthau, 1991, 1993) and information literacy (e.g. Bruce, 2000a, 2000b; Herring, 1996, 2009) to create two versions of a model for information literacy instruction: The Preparing, Searching, Using (PSU) model designed for educators and the simplified Beginning, Acting, Telling (BAT) model, designed for children (Nesset, 2013). In spring 2012 a pilot study to test the model was conducted in Buffalo, NY with two third-grade classes to see if and how using the model could help the teacher to successfully teach the information literacy skills necessary for successful research, but also if it helped the students themselves to better identify and internalize them.

A Brief Description of the PSU/BAT Model

The PSU/BAT model is a process model consisting of three fluid stages (see Figure 1). The Preparing/Beginning stage is highly instructional. The teacher introduces the topic at it its broadest in this stage, using activities related to the two main concepts, reading (e.g., vocabulary exercises, reading aloud and/or silently) and construction (e.g. concept mapping) to prepare the students to work on their own in the following stages. The second stage, Searching/Acting is prefaced by the "focused inquiry", a narrower aspect of the broad topic introduced in the first stage which is assigned by the teacher. It is in this stage that the students begin to act on their own, taking charge of their own behaviors and learning as they actively engage in the research process. Activities center on the six main concepts: planning, defining, finding, gathering, evaluating, and organizing. The third and final stage, Using/Telling is more cognitive, where the students strive to interpret the information they have found in the Searching/Acting stage, integrate it into a form that satisfies the assignment requirements, reference their work, and then present it.

In the more complex PSU version, there are two lined ovals encompassing the embedded bat. These ovals represent two concepts that affect all stages: impact factors (e.g., web design, currency of resources); which are often out of the control of either student or teacher, and learning (cognition). The concept of reflection (metacognition) is represented by a broken-lined oval to indicate that it does not always happen. Also in the PSU version different affective behaviors associated with each stage are identified with some (e.g., curiosity, anticipation) more positive than others (e.g., frustration, boredom).

The Study

Methodology

The study was conducted using a similar methodology to that of the study done in 2006 (Nesset, 2009). Two classes from the same elementary school within the Buffalo Public School District each worked on a class project supervised by the gifted and talented (GT) teacher whom each class visited three times per week. (It should be noted that all children in the two classes, whether gifted or not, attempted the assigned project, one class tackling countries and the other class, biospheres.) A phenomenological, qualitative methodology was used with the following methods:

Interviews: These were semi-structured and wereconducted with the GT teacher and classroom teachers.

Participant Observation: The researcher acted as a co-educator, starting most classes instructing the children on how to use the BAT model to help them with all aspects of the work required to successfully complete their project. A Research Assistant and the Director of the Buffalo Public District School libraries also attended the classroom sessions, taking extensive field notes, and helping individual students in using the model. All classroom sessions were audiotaped.

Surveys/questionnaires: Pre- and post-questionnaires were distributed to the students physically present in the classroom to determine any changes in behavior and/or perceptions of the research process.

Artifacts: The “working copies” (rough drafts) of the project along with some final written reports were collected.

Data Analysis

Audiotapes of the classroom sessions and interviews were transcribed and entered into NVivo software along with the field notes and questionnaire data elicited from open-ended questions. The other questionnaire data were entered into Excel spreadsheets and examined separately. Analysis of the data which is still ongoing consists of coding to uncover patterns in behavior and major themes (Glaser, & Strauss, 1967; Lincoln, & Guba, 1985; Patton, 2004).

While analyzing the data elicited from a qualitative study, it is imperative to engage in reflexivity – that is, to be honest, open, and transparent about oneself. This ensures that the readers of the research are aware of the lens through which the researcher is examining and interpreting the data. Furthermore, when writing up and disseminating the data, it is important to hear the voices of the participants – in this case, eight-to-nine-

year-old children. To appropriately communicate this it is imperative to document the children's experiences in an intelligible and genuine fashion. The data must be allowed to "speak" for itself (Van Manen, 1997). Yet, in the case of young children, letting the data speak is often not straightforward, since children do not always articulate their thoughts in a manner that adults can understand. This is because children have their own culture and language that they use to express their experiences.Thus when not using direct quotes, a measure of translation is required and as with translation from one language to another, the original meaning can be slightly changed and sometimes misinterpreted. The onus is on the researcher to ensure that the translation is done carefully and as accurately as possible so that they accurately describe the children's lived experiences (Van Manen, 1997).

Preliminary Findings

Preliminary analysis of the data indicates that the PSU model (Figure 1), used to inform the visual of the basic BAT model (Figure 2) was for the most part, an effective tool for both the teacher and the students. When asked how the BAT model helped them, with their projects, one student stated, “I went back to Mr. Bat when I forgot to write down lakes and ponds”. Another stated, “When I thought I was done I looked at the Bat and I was not done”. (Both students added this comment to their checked choice, ‘It helped me realize when I was missing information’).Of those students who did not find it useful, one explained, “It did not help me because it mixed me up and confused me because the subject kept going and then went to another”. This latter statement highlighted the main problem with having two versions of the model. Because the teacher and researcher, used the more detailed PSU model as their guide, they often had to verbally identify and explain concepts not identified in the simplified BAT model (e.g., focused inquiry). Thus, without visual reinforcement, some students may have become confused and/or not have assimilated and remembered key information.

These findings, while indicating that the integration of findings from research into information-seeking behavior and information literacy (e.g. visual cues and mnemonic) can facilitate learning, nevertheless revealed a need to further revise the two representations of the model. For these young students, the BAT model as presented was too scant in its depiction of key concepts; the PSU too complex. By reversing the original mindset of embedding the BAT into the more sophisticated PSU, aspects of the PSU were incorporated into the BAT to make it a more holistic visual representation, thereby providing a child-friendly yet robust framework for learning the research process.

Future Research

The final iteration of the BAT model will be introduced on a wider scale, first via elementary school libraries within a school district in the Western New York area. Further research will concentrate on the efficacy of the model in teaching and learning the research process as well as if and how it can be used to encourage and facilitate collaboration between librarians and teachers.

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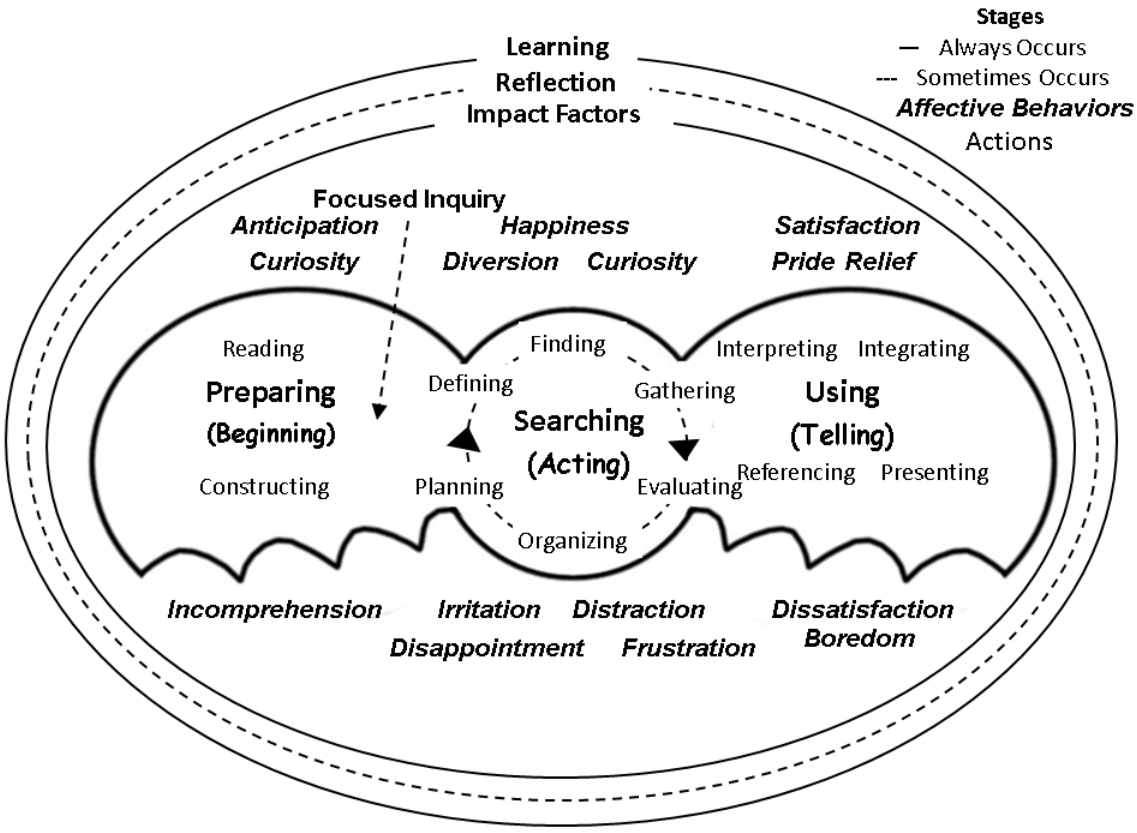

Figure 1: Preparing, Searching, Using (PSU) Model.

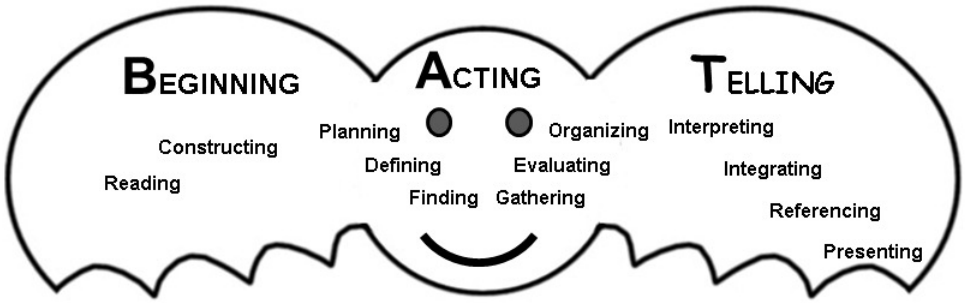

Figure 2: Beginning, Acting, Telling: The BAT Model