

USING AN ONLINE JOURNALING TOOL TO PROMOTE ELEMENTARY STUDENTS SELF REFLECTION

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Abstract

This study investigated whether the use of an online journal would improve Grade 6 boys' capacity for self-reflection. These findings, based on a case study of one elementary school in regional Australia contributes to discussion about the important contemporary issue of engaging boys with school as well as using goal setting to promote this engagement.

Introduction

The purpose of this study was to examine whether an online journaling tool improved Grade 6 male students' capacity for self reflection. A specifically developed tool was developed in 2006, titled Assistive eXtra Learning Environment (AXLE). The original version of AXLE has been detailed in Campbell and Deed (2007). AXLE has been previously used to examine disengaged boys' views about learning (see Deed & Campbell, 2007).

The study reported here aims to determine if this online journal can increase students' capacity to extend their understanding of themselves as learners through the setting, monitoring and evaluating of personal learning goals. This was an exploratory descriptive study that sought to examine how the use of an online journal influenced students' capacity to adaptively react (Zimmerman, 2002) to self-determined knowledge about the effectiveness of their method of learning and set learning goals (Ames & Ames, 1989; Midgley, Kaplan, & Middleton, 2001). There has been a national and international interest in re-engaging boys in education (Department of Education Science and Training, 2003) for several years now.

The AXLE online recording and online journaling space was developed by the researchers and utilized in this study. AXLE is a website that was designed to be

engaging for boys in Grade 6 as well as functional in order to collect data relating to the study. Unique aspects of the design included the use of images rather than text; capacity for each student to individualise their journal using images, colours and clothing for the AXLE avatar; a goal-setting and monitoring cycle; screens to record the boys' affective, behavioural and cognitive engagement with specific tasks; and allowance for the students to upload work samples. Each student's journal was password protected. It was designed to be engaging for the young adolescent male students as well as allow the students to set goals and reflect on how they can achieve those goals in an imaginative, non-threatening and jargon-free environment.

Student participants were required to reflect on specific activities conducted in the classroom. The study also focused on the affective, behavioural and cognitive engagement of the students as well as providing an opportunity for the students to set goals and reflect on this goal weekly through the use of a question cycle that went for a period of four weeks prior to being repeated.

Student Journaling

This project used an atypical method of data collection by utilizing an online resource (online journaling using goal setting and responding to questions about behavioural, affective and cognitive engagement) that allowed students to immediately react to a classroom event and then consider their learning behaviour. The researchers note that the Internet can be interactive, dynamic and a democratic medium for learning (Khan, 1997) as well as engaging for students to use (Jonassen et al., 1997).

It has been suggested by Guzzetti and Gamboa (2005) that online journaling is an under researched area, although a body of literature exists for blogs and wikis. Guzzetti and Gamboa chose to conduct research using online journaling because digital literacy can be a means of making social connections. They conducted a small scale study in the United States with two adolescent girls. Phipps (2005) suggests online journaling is underused in the classroom even though it has many educational advantages.

There is one commercial product in particular that is available to help students reflect on their learning. This product, called Journal Zone, allows students to keep a journal, while others can make comments in a response section (Maeers, Warkentin, & Skillen, 2003). It is reported that "Journal Zone can be used as a knowledge building tool for all learning" (Maeers et al., 2003, p. 4) while Phipps suggests that "e-journaling is ideal for reflective learning activities in traditional classrooms" (2005, p. 65). This suggests that AXLE as a journaling tool is likely to be complimentary to learning tasks within the classroom and be seen as relevant and usable by students.

It is reported that online journaling and specifically blogging is popular among students in the middle years and that it is motivational for students to use (Read & Fisher, 2006). The benefits of this type of writing is that it is motivating and engaging for the students (Read & Fisher, 2006).

Student Engagement

There is national and international interest in re-engaging boys in education (Department of Education Science and Training, 2003). Interventions such as new pedagogies, middle years' innovations, and curriculum policy redesign (e.g., Victorian Essential Learning Standards) all provide an environment where students are exposed to alternative approaches designed to engage learners. This project is of particular significance as it addresses a need to provide teachers with efficient interventions to enable students to imagine and reconceptualise their learning behaviours. AXLE provides one such intervention as it may allow students to reconceptualise their learning behaviours through the use of the journal section, but also through the use of goal setting.

The indicators for educational disengagement which formed the basis of AXLE have been based on the work of Fredricks, Blumenfeld, and Paris (2004) who mapped the multiple definitions of the concept of engagement. The indicators used were: behavioural (following rules, adhering to school 'norms' and involvement in learning); emotional (motivation for learning, sense of belonging) and cognitive (sense of control over learning; use of learning strategies, adoption of a strategic approach to learning). These were the indicators which were used when the students logged into AXLE to complete a journal.

Goal Setting

Once children are able to have positive thoughts about themselves and their abilities they can be taught how to set both realistic and achievable goals (Szente, 2007). Goal setting is crucial to success and as schools spend very little time teaching students to focus it really should be introduced (Rader, 2005). Goal setting processes are integral to having effective student learning (Gillespie, 2002). It has been suggested by Ames (1992) that students should be oriented towards mastery goals where the focus is on effort, not ability.

Self Reflection

Jonassen, Howland, Marra and Crismond (2008) suggest that self reflection can be defined:

by reflecting on the puzzling experience, learners integrate their new experiences with their prior knowledge about the

world, or they establish goals for what they need to learn in order to make sense out of what they observe (p. 3).

Zimmerman (2002) states there are two main processes in self reflection. The first one is self evaluation and it “refers to comparisons of self-observed performances against some standard, such as ones prior performance” (p. 68), someone else’s performance or even an absolute standard. The second phase “involves feelings of self satisfaction and positive affect regarding one’s performance” (p. 68).

Zimmerman goes on to state that motivation is enhanced with increases of self satisfaction. This study hopes to provide motivation, and in time self regulation to the student participants. In short in this study, self reflection meant thinking about ones own behaviour and then being able to modify it accordingly.

Development of the Project/Methodology

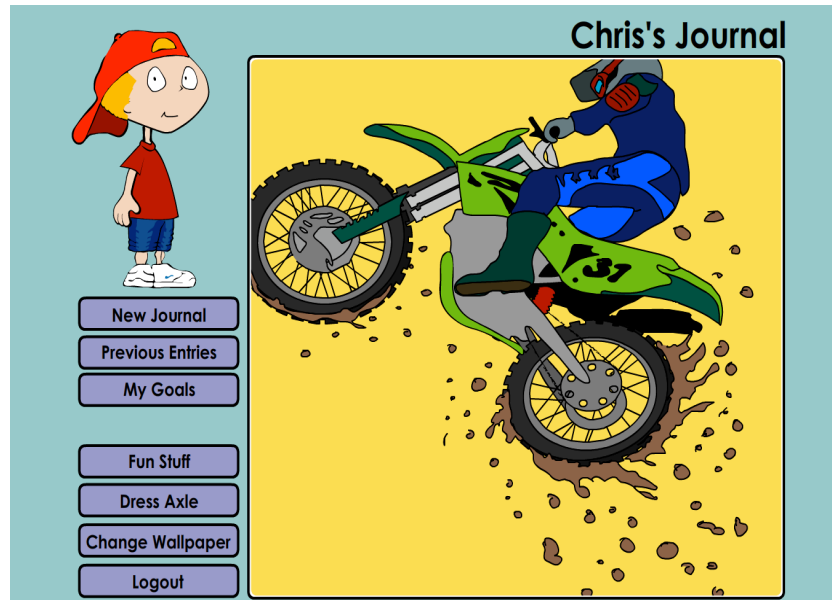
With a qualitative methodology framework, a case study approach was used for this research. Twelve Grade 6 boys participated in this study. Each of the student participants was interviewed twice, once at the beginning of the study and once at the end. The interviews were electronically recorded and transcribed. The data was then coded and analysed for emerging themes.

The data collection period for this study was in 2007 with the results described in full in this paper. Briefly, it was found that using AXLE as a tool for journaling enabled regular and focused student self reflection. However, it should be noted that this study is limited due to the small number of boys involved. Further research in this area in the future is recommended.

The development of this online journaling tool began with the creation of an avatar, which became known as AXLE. The website was designed to be interactive and engaging for the students with AXLE ‘talking’ and introducing the website navigation to the students when they initially logged on. AXLE ‘explains’ to the students they can change how he dresses by checking the arrows and they can change the background at any time they wish. Each time the students log in they can change AXLE’s clothes, hairstyle and what he is holding, which includes a skateboard, guitar, basketball and football.

On the left hand side of the AXLE screen the students have several choices they can make. These include creating a journal, looking at previous entries, entering the goal setting section, or the fun stuff, dressing AXLE or changing the background screen. These are shown in Figure 1.

Figure 1: The initial log in screen on the online journal



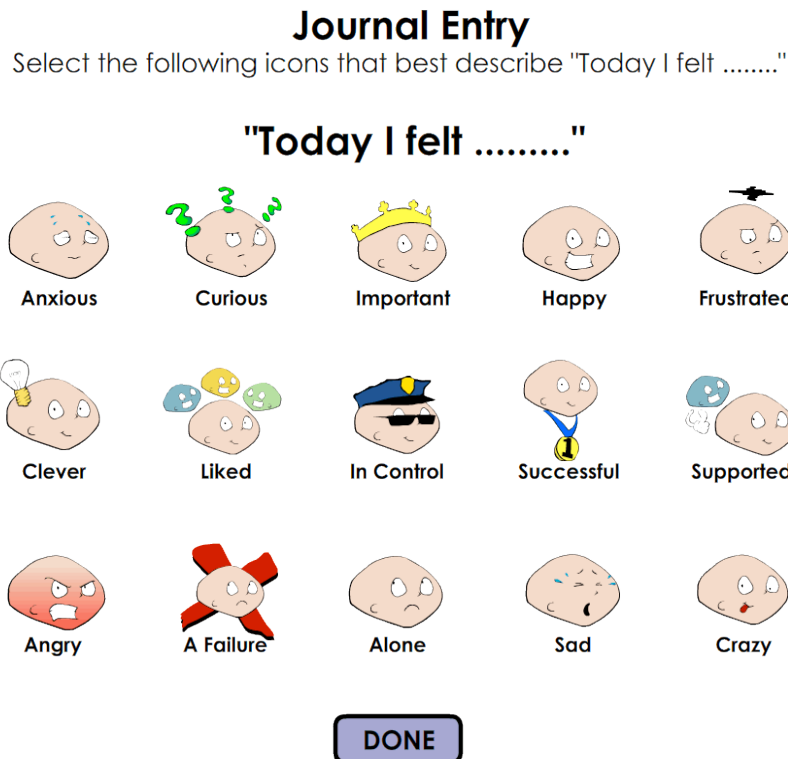
After logging onto the website the students complete a journal entry by checking one to five on a series of statements pertaining to their behavioural and cognitive engagement. Figure 2 shows an example of the affective screen where the students can check a face to describe how they are feeling. When the face is checked it is highlighted by a circle around the image. As many faces can be checked as the student wishes.

The students were also able to change the background image. These backgrounds included a plain white area, football field, guitar guy, space, circus tent, a dragon, and basketball hoops. These backgrounds were designed after discussion with the boys regarding their local interests. They were meant to be engaging for boys, while the white background was for any students not wanting a 'busy' area.

After the development of the website it was placed on the Internet with password access required by the students and researchers to enter. Another further restricted website allowed the researchers to access each student's journal entry and to view the work sample.

The students were also able to upload a work sample in the form of an online text reflection, a .jpg file or .wav audio file. These files, along with the coded journal entries were then saved on a server for access by the researchers. Several times in the semester the students were then interviewed with regard to their work sample and journal reflection.

Figure 2: One of the screens from the online journal



As part of the online recording space there was a separate section where the students involved in the study could record a goal. This was a further development from this research in previous years (see Campbell & Deed, 2007) as it was determined that a goal setting section for AXLE would further develop student self reflection. The students participated in an in-class goal setting activity with the students then recording their goal within the AXLE environment. The goal setting section used a series of question cycles. The students then had the opportunity to go through a question cycle relating to their goal each week, thus allowing the students to reflect on their goal as shown in Table 1. Each cycle was for four weeks with the cycle being repeated once during the school term.

The students were informed by the classroom teacher that the learning goal had to be expressed as a learning behaviour. The class teacher was given a list of learning behaviours that could be translated as learning goals. This way the class teacher was able to record for evidence of engaged behaviours shown in class from the students.

Table 1: AXLE had a goal setting section attached to it with this being the question cycle.

| Condition | Week 1 | Weeks 2/3 | Week 4 |
|--|--|--|--|
| Time | <ul style="list-style-type: none"> What will help you to achieve this learning goal? | <ul style="list-style-type: none"> How are you trying to achieve your learning goal? | <ul style="list-style-type: none"> How do you know if you have achieved your learning goal? |
| Frequency 2 or more visits per week | <ul style="list-style-type: none"> Why is it important to achieve this learning goal? | <ul style="list-style-type: none"> How will you know when you have achieved your learning goal? | <ul style="list-style-type: none"> What other learning goal could you set? |

One of the limitations of this study is the small group size. In the future a larger sample size would allow this research to be more generalizeable. Another limitation is that the teacher does not have access to the student records in AXLE. This means that the teacher can not comment on the student comments in AXLE, but can still gauge the impact on classroom behaviour.

Results

There are several themes that have emerged through the use of AXLE. These are:

- Using AXLE is engaging and fun.
- Allows students to be reminded of their goal.
- Allows students to self reflect.
- Using AXLE allows the students to be using ICT in the classroom as a tool to assist in their class work.

AXLE is Engaging and Fun

The students all enjoyed using AXLE. They often reported saying they thought AXLE was fun to use. One student liked AXLE “because you can do your own thing and you don’t have anyone to tell you what to do.”

This suggests that AXLE provided an entry point for engagement with discussion about learning. Students are unlikely to be involved in a discussion about learning goals if they regard such conversations as uninteresting or irrelevant. Thus, AXLE provides an interesting platform that can be used as a basis for complex discussions about the abstract notion of learning.

Students Were Reminded of their Goal

Students thought that logging in regularly assisted them in remembering their goal. This is because they were able to have contact with their goals through the use of AXLE. One student, Josh, said “I guess I go on it every so often and it just reminds me that I have to do it.” Another student thought AXLE made him think about his learning and his goal. He stated:

Because you hop on all of the time and you remember all the stuff, the goals and you say I remember this goal and you go and do it. (Brandon)

This suggests that for this student using AXLE allowed him to be reminded by his goal and then continue to work towards it.

Another student stated:

I was finding it hard to remember everything we had to do so when I've done it I had a better understanding of it and because I just wrote it all down. (Darcy)

Interestingly, one student commented that using AXLE assisted him more than if he wrote his goals in a book. This student stated:

If you set goals in the book you don't really go over them but every time you get on AXLE you jump into your files and it helps you remember it. (Jake)

Another student stated that last year he had to write down four goals. When asked how he went with the goals the student stated he didn't achieve them. This student went on to say that AXLE helped him achieve his goal as he could log in.

The students' comments are evidence that AXLE helps to remind students, in a non-teacher way, of the goals that they have set. The questions are presented to the students in an environment that is frequented by students. Thus, students feel that the questions are personalised and being asked in a non-threatening or non-intrusive manner.

Students had the Opportunity to Self Reflect

By using AXLE students were able to self reflect both on their goal and on their cognitive, behavioural and emotional engagement at school. One student stated that using AXLE:

Makes you think about how good I have become today and what I have learnt and stuff what that thing. (Jayden)

One student would log into AXLE each week and look at his goal. When he was interviewed he stated he had achieved his goal and it was because he went into AXLE regularly. When asked for clarification, the student said he could 'rethink' his goal, thus allowing for self reflection of his goal and class work and behaviour.

Self reflection is a complex task, and students like Jayden usually find this a difficult and abstract task. However, AXLE provides an environment where the students were able to have a personal space to think about their learning. While it is not suggested that all students would benefit from similar interventions, this does demonstrate that when self-reflection is presented in a structured manner, within a student-friendly environment, students can respond appropriately.

Using AXLE as an ICT Tool

By using AXLE the students were given the opportunity to use an ICT tool that enabled them to record electronically their class work. Interestingly, one student believes that AXLE is a tool to write stuff down, but he doesn't feel it is necessarily ICT as his interview suggests he thinks of it as a tool and not like his ICT classes when he is learning ICT.

Although ICT has been embraced by most schools as a means for learning, there are still many pedagogical implications and practices that have to be considered. AXLE is one means of using ICT to allow students to record their private ideas about learning. In doing so, they are actually starting to develop the capacity for self reflection and this is an important part of being an independent learner.

Problems with AXLE

There were no access problems reported by either the students or the class teacher. The students were given time during the week to access AXLE and they all did this with no reported issues throughout the period of the study. The students were either given access by being sent over to the library or to the small bank of computers at the back of the classroom.

However, the students did report that they hadn't learnt how to scan their work into the computer. Although the school had scanners the students weren't given the opportunity to learn how to use them. Most students reported still wanting to learn how to scan material in and then upload it into AXLE. The students were thus limited with how they used the journaling section of AXLE.

One problem the researchers would like to report on is that there were two games placed into AXLE for use by the students as a reward. The games were to be released after each of the question cycles were completed. Until that time the games were blocked. However, the school Internet access was much slower than the access the developers had. Thus, the students were actually able to access the first game by clicking on it while it was loading, prior to the 'unavailable' message being displayed on the screen, and blocking access. The students were able to work out how to access this game the first time they used AXLE independently in the school library.

Conclusions

As is shown from the above discussion, the students enjoyed using AXLE. More importantly they felt AXLE was engaging and by logging in regularly they were reminded of the goal they set and how they were going to achieve this goal.

AXLE has been shown to be an important learning space within the classroom. The participants clearly identified that AXLE allowed them to interact with their own ideas about learning. Setting goals and then answering questions helped the students consider their learning on a regular basis, and within an environment where they felt comfortable and engaged. Szente suggests it is important to receive "continuous feedback and monitoring from adults" (2007, p. 453). It can be argued that AXLE is an inter-mediatory in this. Although AXLE can not provide feedback it does provide the students with the opportunity to self reflect on their goal and then go about achieving it. Szente goes on to state that once students have positive experiences they will be more likely to persevere and keep on trying to achieve their goals.

Although it is difficult to generalise from one case study, the study suggests significant learning gains can potentially be made through the use of online journaling tools. Through further investigation it may be possible to ascertain if students are in fact self regulating in their school work through the use of AXLE.

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