ResearchOnline@ND

University of Notre Dame Australia
ResearchOnline@ND

Education Papers and Journal Articles

School of Education

2009

Engaging boys through self-reflection using an online journaling tool

Chris Campbell
University of Notre Dame Australia, ccampbell1@nd.edu.au

Craig Deed
La Trobe University, c.deed@latrobe.edu.au

Follow this and additional works at: http://researchonline.nd.edu.au/edu_article

Part of the Education Commons

This article was originally published as:
Campbell, C., & Deed, C. (2009). Engaging boys through self-reflection using an online journaling tool. *Australian Educational Computing*, *24* (1), 4-9.

This article is posted on ResearchOnline@ND at http://researchonline.nd.edu.au/edu_article/35. For more information, please contact researchonline@nd.edu.au.

Engaging boys through self reflection using an online journaling tool

Dr Chris Campbell
Lecturer in ICT Education
School of Education, Sydney
University of Notre Dame Australia
PO Box 944
Broadway NSW 2007
Australia
Tel: +61 3 5444 7322
Fax: +61 3 5444 7800
Email: chris.campbell@latrobe.edu.au

Dr Craig Deed
Senior Lecturer in Education
Faculty of Education, Bendigo
La Trobe University
PO Box 199
Bendigo VIC 3552
Australia
Tel: +61 3 5444 7305
Fax: +61 3 5444 7800
Email: c.deed@latrobe.edu.au

Engaging boys through self reflection using an online journaling tool

ABSTRACT

The study reported here investigated whether Year 6 boys were engaged through the use of an online journaling tool. This journaling tool allowed the students to self reflect on their behaviour and affective reaction in an online environment. Case study methodology was used with twelve boys from a regional primary school in Victoria, during the one school term of ten weeks. This online journaling website allowed the boys to log in securely, set goals, reflect on their goals as well as keep a reflective journal measuring their cognitive, affective and behavioural engagement. The results suggest that the online journaling tool does prompt self reflection by the students. Online journaling was also shown to provide a means to engage students.

INTRODUCTION

This paper reports on a case study of how a purposefully constructed online journaling space was used to engage Year 6 boys with the concept of self-reflection. The study used a specifically developed tool which was created in 2006. It was then given the title of Assistive eXtra Learning Environment (AXLE) with the original version of AXLE detailed in Campbell and Deed (2007). AXLE has been previously used to examine disengaged boys' views about learning (See Deed & Campbell, 2007).

The central question examined is whether the male students were engaged by the online journaling aspects of AXLE. In this study, engagement refers to the boys' affective and behavioural response to the requirements to be self-reflective while using AXLE.

AXLE is an online recording and journaling space developed by the authors and designed to be engaging for boys in Year 6 as well as functional in order to collect data relating to the study. Unique aspects of the design include the use of images rather than text; the 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 with only students being able to edit their own journaling space. The researchers could also see journal entries but they were kept private from teachers unless the students shared them specifically with the teacher. AXLE was designed to be an interesting space 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. It is important to note that the term 'reflection' had negative connotations for these students. It was an abstract idea that the students initially perceived as irrelevant to their school life. Reflection had become another task they had to do for the teacher. Thus, the students were not explicitly told that they were reflecting, rather they were asked to report on their experiences by completing a series of questions. The online journal focused on the students' perceptions of their affective, behavioural and cognitive engagement of their most recent classroom experience. It also provided 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. It is acknowledged that this was a somewhat artificial goal-setting process. Rather than seeking to involve the boys in a process of goal related reflection, the process emphasised regularised thinking about how the boys classroom behaviour could be examined with reference to prior thoughts about possible improvements. In setting weekly questions it was hoped that the boys would start to see links between their goals and classroom behaviour. This was thought to be a basis for further in-class work by the teacher.

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" (Zimmerman, 2002, 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" (Zimmerman, 2002, p. 68). Zimmerman goes on to state that motivation is enhanced with increases of self satisfaction. In short in this study, self reflection meant thinking about one's own behaviour and then being able to modify it accordingly.

Self reflection is an important part of metacognition and self-regulated learning. These are influential concepts within contemporary education. However, it is also acknowledged that self reflection is a difficult idea to implement within a classroom without teacher scaffolding or prompting. Without such prompting the students may perceive self reflection as just another task to be completed for the teacher. The authors believe that self reflection is an integral part of learning, and is to be completed by the students, informed by monitoring their own academic progress and achievement. Thus the importance of this study is that it presents one way of involving students in reflection without the need for direct teacher approval. This also presents some disadvantages, as

co-regulation of learning, where the teacher and student work together to develop goals, monitor and adapt learning behaviour, is increasingly seen as important. This limitation needs to be considered when examining the implications of using AXLE.

Student Journaling

The reported project used an atypical method of data collection by utilising a specifically created 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 an interactive, dynamic and a democratic medium for learning (Khan, 1997) as well as engaging for students to use (Jonassen, et al., 1997).

It is has been suggested by Guzzetti and Gamboa (2005) that online journaling is an under researched area, although a substantial body of literature exists for blogs and wikis. Guzzetti and Gamboa (2005) chose to conduct research using online journaling because digital literacy can be a means of making social connections. 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 (2005, p. 65) suggests that "e-journaling is ideal for reflective learning activities in traditional classrooms". This suggests that AXLE would be seen as a relevant and usable journaling tool likely to compliment learning tasks where students have to make and then consider the appropriateness of choices about their learning within the classroom.

Researchers report that online journaling and more specifically using blogs 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).

Goal Setting

Once students 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.

Goal setting was introduced in AXLE to direct and focus student reflection. We did not want students generally reflecting on their day at school, but on their behaviour in relation to a focused goal.

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.

DEVELOPMENT OF THE PROJECT/METHODOLOGY

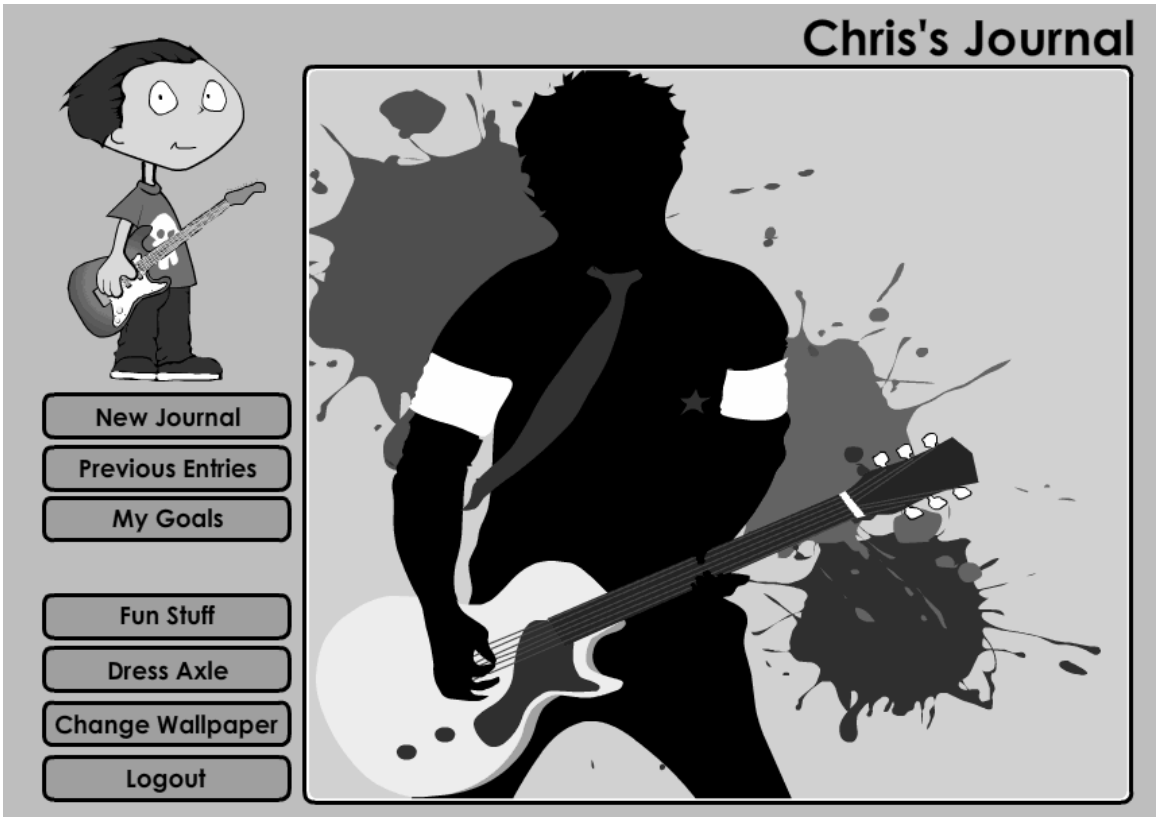
Within a qualitative methodology framework, a case study approach was used for this research. Twelve Year 6 boys participated in this study. These students were drawn from the only Year 6 class at a regional primary school. The female students in the class were also working on self reflection and goal setting, although in a written format. The researchers were invited to the school due to local perception that the boys were largely disengaged with school participation. Thus the study was only focused on the male students in the class.

The overarching research question informing this research was whether male students were engaged by the online journaling tool and if they were able to be self reflective while using this tool throughout the school term.

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. Each of the student participants were 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 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.

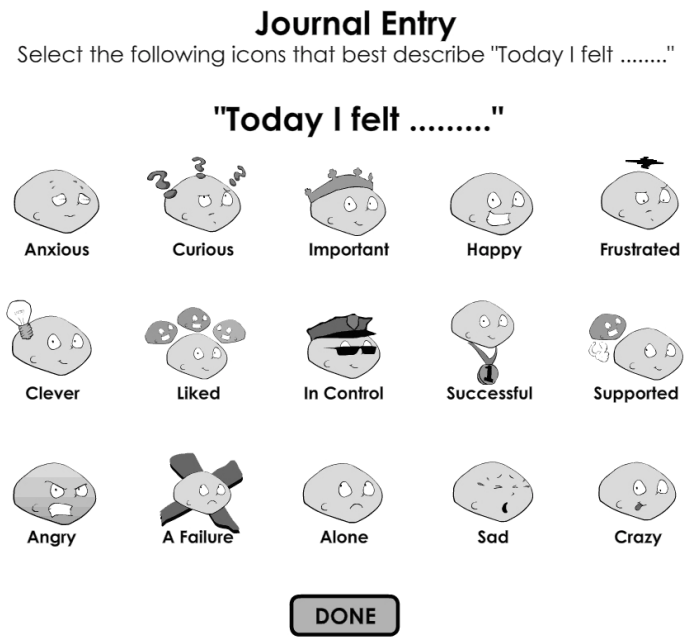
Figure 1: The initial log in screen on the online journal.



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 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. This design feature of AXLE was to reduce the amount of text that the male students would have to navigate.

Figure 2: One of the screens from the online journal.



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. Neither the teacher nor other students were able to access a student's journal entries, thus creating a private space for the students to record their thoughts.

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. The students were interviewed twice with regard to their goal setting, uploaded work samples, if any, and journal reflection.

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.

Table 1: AXLE's goal setting cycle.

Condition	Week 1	Weeks 2/3	Week 4
Time	• What will help you to achieve this learning goal?	• How are you trying to achieve your learning goal?	• How do you know if you have achieved your learning goal?
Frequency 2 or more visits per week	• Why is it important to achieve this learning goal?	• How will you know when you have achieved your learning goal?	• What other learning goal could you set?

This table shows that students may only have answered one question per week, or three questions in total over the four weeks. However, if they visited AXLE more than once during a week they would receive a supplementary related question.

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.

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 generaliseable. Another limitation is that the teacher does not have access to the student records in AXLE. This means that the teacher cannot comment on the student comments in AXLE, but can still gauge the impact on classroom behaviour.

RESULTS

The data collection has resulted in several themes emerging through student use of AXLE. These are that using AXLE:

- Was perceived by the male students as engaging and fun.
- Allowed students to be reminded of their goal.
- Provided students with prompts for focused self reflection.
- Encouraged students to integrate ICT in the classroom as a tool to assist in their class work.

AXLE is Engaging and Fun

The students all reported enjoying 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".

Torey is an illustrative example of how the participants used AXLE. Torey's stated goal was to "stop getting sent to the principal's office". The prompts on AXLE and Torey's responses are shown below.

> Why is it important to achieve this goal? "Because now when I talk a lot it gets me into trouble".
>
> How do you know if you have achieved your goal? "Not sitting with people that I talk to a lot".
>
> What other goal could you set? "I don't know".
>
> Why is it important to achieve this goal? "Because it's annoying [sic] for the Principal and I'm missing out on my own learning and it is boring just sitting there doing nothing".

This may initially appear to be a simple set of responses. However, this also demonstrates the potential of AXLE. Torey has clearly identified a personal behavioural goal in response to his experience of sitting outside the Principal's office. Self-reflection is not, in this instance, directly about cognition but about the immediate concern of classroom behaviour. This is powerful because these are Torey's own ideas without involvement of peers or teachers.

Perhaps students are unlikely to be involved in a discussion about learning goals if they regard such conversations as uninteresting or irrelevant or if they are feeling intimidated. AXLE provides an interesting platform that can be used as a basis for discussions about the abstract notion of learning. This suggests that AXLE provided an entry point for engagement with discussion about learning. Conversely this has implications for the teacher. The questions this raises are whether students see their learning behaviour are a personal responsibility or if they are willing to allow the teacher to co-regulate their day-to-day classroom activity.

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)

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 commented he didn't achieve them. This student went on to say he believed that AXLE helped him achieve his goal due to his interest and being reminded when logging in.

The students' comments are evidence that AXLE helps to remind students, in a non-teacher directed 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.

Again the implications concern the role of the teacher. It seems somewhat simplistic to say that being reminded of a goal can help you achieve that goal. Yet clearly the use of the online environment was appealing because the boys were reminded of their goal when they logged in and this created an ongoing awareness of the purpose of self reflection. Whether this resulted in changes to student behaviour was not a part of this research, although this is an important reason to continue studying the effects of online journaling.

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. A 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 had not learnt how to scan their work into the computer. Although the school had scanners the students were not 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 broadband connection used by the AXLE developers. 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. It is speculated that this made the website more engaging for the boys. When we became aware that the boys were accessing the games prematurely we did not then restrict access. The boys felt excited and empowered that they were able to take control of the site and quickly shared with each other how to do this. From a classroom perspective, again this raises interesting points. The teacher had to assist students use AXLE and students had to leave the classroom and access AXLE in the library. They were unsupervised during this time in terms of how they used AXLE. Teachers have to consider whether this degree of

freedom and responsibility is appropriate for their context. In this case it was an important component of making AXLE workable for the boys.

Implications for primary school classrooms

A number of implications have emerged from this study. Giving students, particularly boys, a space where they can be creative and supported to report their version of classroom experience is a powerful process. The online journal moves the idea of learning from the classroom to a wider environment. Reflection can occur in class, elsewhere within the school or even at home. However the context of reflection is not as important as provision of an engaging scaffold. Students are able to record comments on their experiences and ideas about learning at any time and in their own 'voice'. Thus, the issue is how to capture and report this information back in the formal setting of the classroom.

An important aspect of learning is the ability to self-monitor and self-assess. This was the purpose of the goal setting cycles. This allowed the boys to experiment with goal monitoring in an informal way, and this allowed the boys to start to link writing about their experience with the concept of learning goals. This is a basis for classroom operationalising of goal setting. A key finding was that the boys were able to respond appropriately to questions and processes in relation to the complex and abstract concept of learning when using AXLE. Teachers need to use student ideas, initially expressed in online journals in this instance, as a commencing point for meaningful goal setting.

AXLE was shown to be an engaging online journaling tool that directed student's attention to a series of reflection prompts. The use of a mix of text and visual images was used to represent key aspects of reflection that may be too complex for the student to consider without prompts. The consistent logging on to AXLE helped students practice reflection and may have helped the student make links between classroom learning tasks and personal learning characteristics. Individual differences in learning and ideas about classroom behaviour were able to be recorded by the students in a non-threatening although scaffolded manner.

CONCLUSION

As is shown from the above discussion, the students found they were engaged with 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. Therefore, they were involved in a process of self reflection. Whether this involvement led to positive behaviour changes in the classroom was not an explicit component of the reported study.

AXLE has been shown to be an important learning space within the classroom, school and possibly the home environment. 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 (2007, p. 453)

suggests it is important to receive “continuous feedback and monitoring from adults”. It can be argued that AXLE is an inter-mediatory in this. Although AXLE cannot provide feedback it does provide the students with the opportunity to self reflect on their goal and then go about achieving it. Szente (2007) 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 student engagement with self reflection 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.

References

Ames, C. (1992). Classrooms: Goals, structures, and student motivation. *Journal of Educational Psychology, 84*(3), 261 - 271.

Campbell, C., & Deed, C. (2007). *Using an online journaling tool to collect rich self reflection data with elementary school children.* Paper presented at the Society for Information Technology and Teacher Education International Conference 2007, San Antonio, Texas, USA.

Deed, C., & Campbell, C. (2007). Boys acting differently: Choice, engagement and learning. *The International Journal of Learning, 14*(2), 150 - 157.

Department of Education Science and Training (2003). *Meeting the challenge final report: Guiding principles for success from the boys' education lighthouse schools programme stage one*. Canberra: DEST.

Fredricks, J., Blumenfeld, P., & Paris, A. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research, 74*(1), 59-109.

Gillespie, M. K. (2002). EFF research principle: A purposeful and transparent approach to teaching and learning. EFF research to practice note. Washington D.C.: National Institute for Literacy.

Guzzetti, B., & Gamboa, M. (2005). Online journaling: The informal writings of two adolescent girls. [Research]. *Research in the Teaching of English, 40*(2), 168 - 206.

Jonassen, D. H., Dyer, D., Peters, K., Robinson, T., Harvey, D., King, M., et al. (1997). Cognitive flexibility Hypertexts on the web: Engaging learners in meaning making. In B. H. Khan (Ed.), *Web-Based Instruction*. New Jersey: Educational Technology Publications.

Jonassen, D. H., Howland, J., Marra, R. M., & Crismond, D. (2008). *Meaningful learning with technology* (3rd ed.). New Jersey: Pearson.

Khan, B. H. (1997). Web-based instruction: What is it and why is it? In B. H. Khan (Ed.), *Web-based instruction*. New Jersey: Educational Technology Publications.

Maeers, V., Warkentin, B., & Skillen, P. (2003). *Creating online (Mathematical) learning communities through journal zone.* Paper presented at the Society for Information Technology and Teacher Education International Conference, New Mexico, USA.

Phipps, J. (2005). E-Journaling: Achieving interactive education online. *Educase Quarterly, 28*(1), 62 - 65.

Rader, L. A. (2005). Goal setting for students and teachers: Six steps to success. *Clearing House, 78*(3), 123-Feb.

Read, S., & Fisher, D. (2006). Tapping into students' motivation: Lessons from young adolescents' blogs. *Voices from the middle years, 14*(2), 36 - 46.

Szente, J. (2007). Empowering young children for success in school and in life. *Early Childhood Education Journal, 34*(6), 449-453.

Zimmerman, B. (2002). Becoming a self-regulated learner: An overview. *Theory into Practice, 41*(2), 64-70.