A case study investigating structured blogging to support the practice and acquisition of learner self-assessment skills

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A dissertation submitted to the University of Dublin, Trinity College, in partial fulfilment of the requirements for the degree of Master of Science in Technology & Learning.

2013
I declare that the work described in this dissertation is, except where otherwise stated, entirely my own work and has not been submitted as an exercise for a degree at this or any other University.

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“Tomorrow’s illiterate will not be the man who can’t read, he will be the man who has not learned how to learn”

Herbert Gerjuoy
ABSTRACT

There is an increasing interest in recent times in putting students at the centre of their own learning with emphasis being placed on Assessment for Learning (AfL). Within AfL, supporting learner self-assessment is considered worthy and important in developing motivated, responsible and autonomous individuals who have the capacity to rely on themselves as worthy judges of their own work. Providing students with opportunities to learn the skills of self-assessment is important for academic achievement and also for career enrichment. This dissertation explores how a structured blogging process can scaffold learners in developing and practising the skills of self-assessment.

“Self-assessment is intended to help student understand the goals of tasks, reflect on what they have achieved with reference to such goals, and figure out what it will take to finally reach their goal.” (Butler & Lee, 2010, p. 25)

“WE-SA W” (a Web-enhanced Experience – Self-Assessment with Weblogs) was designed around the affordances of blogging technology, with the purpose of supporting learners when using self-assessment skills and strategies. “WE-SA W” is a seven phase process which incorporates setting tasks for learners which provoke self-reflection, higher order thinking, monitoring and planning of their work. The design encouraged learners to contribute to assessment criteria by way of target-setting, engagement with multi-way feedback and thought-sharing, as these are considered viable means of enhancing learner self-assessment skills. In investigating the technical affordances of blogging, (which include commenting and editable posting in reverse chronological order on a personalised, social and public platform), it was proposed that this technology could support self-assessment development.

In this case study, 22 girls (9/10 years old) took part in a structured blogging process (“WE-SA W”), over a five week period resulting in approximately 17 hours of blogging per participant. The user-generated data from the physical artefact of the blog, along with focus group interview data sets, observational notes and recordings were analysed using a predominantly qualitative approach, with some quantitative focus given to the user-generated data. Qualitative data was manually analysed thematically, with quantitative data from student blogs analysed numerically for quantity and type of content produced.

The aim of the research was to decipher if structured blogging could support and enhance learner self-assessment and what role the technology had in scaffolding this. The results establish blogging technology as a teaching tool with significant potential to assist learners when practising self-assessment. The design of the “WE-SA W” process, which relies on the affordances of blogging, can be successfully used to involve learners
as assessors of their own efforts. Multi-way feedback as an essential element which fosters self-assessment is assisted and the public domain of the blog ensured appropriate and positive assistance was offered. Goal-setting and the involvement of learners in co-creating assessment criteria for a given task was evident. Commenting features were used to share thoughts and the reflective nature of the blog facilitated goal-setting in relation to work previously viewed and/or published in “WE-SAW”. The findings suggest that learners should be more involved in their own learning and have worthy judgements to make on their own abilities.
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1 INTRODUCTION

1.1 BACKGROUND

This research examines how technology can support students when acquiring the skills of self-assessment.

Self-assessment is considered to be a fundamental skill for learners, empowering students to make decisions and judgements with regard to their own learning (Andrade & Valtcheva, 2009). It shifts the focus away from performance standards and examination results and on to students as autonomous instruments of their own learning (Phelps, 2010). It should be noted that self-assessment differs from self-evaluation as it does not focus on grading one’s own work, but rather on reflecting on one’s own work to determine further learning targets, (Andrade & Valtcheva, 2009) and this is the approach adopted for this study.

Difficulties in practising and implementing self-assessment are: a) under-prioritising assessment for learning (Bingham, Holbrook, & Meyers, 2010), b) lack of opportunity to practise (Taras, 2010) and c) misconceptions regarding student capabilities (Bingham, et al., 2010).

McLoughlin and Lee (2010) agree that today’s students want to learn in a media-rich, interactive environment. Accordingly, blogging technology was explored as a potential medium through which the skills of self-assessment could be practised. It was deduced from the literature that blogging technology could potentially host an experience which could develop self-assessment skills, once a structured process underpinned by self-assessment theories was in place.

This thesis aims to investigate self-assessment, and presents a technology based learning experience around which the skills could be supported, used and practised. In aligning the skills of self-assessment with the affordances of blogging technology, a seven phase process model called “WE-SAW” (Web-enhanced Experience – Self-Assessment with Weblogs), was designed and implemented though a blogging website. The elements of feedback and goal-setting as components of self-assessment are prioritised
for this study. It is anticipated that this research will highlight an effective way of teaching learners how to effectively practise the process of self-assessment.

### 1.2 RESEARCH QUESTION

The research question which guided this thesis was:

*Can structured blogging be used to support the acquisition of learner self-assessment skills?*

along with these sub-questions:

*Do learners engage with “WE-SAW” for the purpose of practising and developing self-assessment strategies?*

*Does “WE-SAW” support the learner when attempting to learn self-assessment skills, and if so, how?*

*How are the features of “WE-SAW” used to practise goal-setting and multi-way feedback?*

*Does participation in “WE-SAW” result in appropriate self-assessment, and as a result, are improved standards of work evident?*

### 1.3 DISSERTATION ROADMAP

Chapter two presents a literature review exploring the theories of self-assessment, and focuses on goal-setting and feedback. Literature around young learners and self-assessment is reviewed as this study engages with young participants. The optimum methods for teaching and acquiring self-assessment are explored as are the factors which may hinder its acquisition. Then, blogging technology is investigated and its affordances are linked to the practice of self-assessment.

Following this, chapter three details the design of the seven-phase process “WE-SAW” as informed by the key findings in the literature. The design of the “WE-SAW” process model is presented and analysed. The context of the experience is explained,
along with factors which were considered when choosing and using www.kidblog.org as the blogging platform for this study.

In chapter four, the case study approach is discussed and justified. The data collection tools and analysis methods are presented, the implementation is explained and the chapter concludes with participant details, ethical considerations and information regarding the researcher and researcher bias.

The findings of the study are presented in chapter five and discussed with a view to answering the research questions, and finally chapter six concludes the project, discusses its limitations and presents areas which may be considered for further research.
2 LITERATURE REVIEW

2.1 BACKGROUND AND CONTEXT

According to Spendlove (2009), education has become very focused on examination results and learning a curriculum for the purpose of formal testing. The learner and learning skills which should be at the forefront of an education system have been undervalued as education systems have evolved for a society overly obsessed with performance and grades. It is argued that more emphasis should be placed on mastering the skills needed for learning as opposed to focusing on setting and achieving performance targets (Phelps, 2010). Self-assessment is repeatedly ignored at the expense of the learner (Bingham, et al., 2010).

Assessment for Learning (AfL), which includes self-assessment, has been promoted by the NCCA (National Council for Curriculum and Assessment) in the “Guidelines for Schools” (2007) publication as a valuable method of assessment in the primary school. With an increasing demand on teachers to implement formative assessment strategies and to provide data on assessment, new and effective ways of collecting and evaluating data for assessment are essential.

There is a need for increased importance to be placed on formative assessment in classrooms (Bingham, et al., 2010). However, if learner capabilities are not understood (Bingham, et al., 2010), if significant opportunities to acquire the skills necessary to engage in the process of AfL are not provided, (Taras, 2010) and if timely and worthwhile two way feedback is not facilitated (Andrade & Valtcheva, 2009), then, as argued by Bingham et al, (2010), it is a disservice to the learner.

In Assessment for Learning (AfL), the skills and strategies of student self-assessment are given significant importance (Bingham, et al., 2010; Black & Wiliam, 1998; Fluckiger, y Vigil, Pasco, & Danielson, 2010; Towler & Broadfoot, 1992; van Kraayenoord & Paris, 1997). Andrade and Valtcheva (2009) consider it to be an essential part of formative assessment as students learn to rely on themselves, and not the teacher, to make judgements on the standard of their own work. If education systems wish to support learners who are motivated and take responsibility for their learning both while
in school and throughout their professional lives, then self-assessment strategies should be taught in all educational contexts (Dunlap & Lowenthal, 2011; Elder, 2010; Towler & Broadfoot, 1992). Also, students of the digital age crave a different, more interactive type of learning experience which is “social, participatory and supported by rich media”, and where they have active roles in their learning (McLoughlin & Lee, 2010, p. 28). In supporting student engagement with social software, this in turn enhances communication skills and promotes sharing of knowledge, and these are regarded as essential traits of the modern learner and worker (Punie, Cabrera, Bogdanowicz, Zinnbauer, & Navajas, 2005).

This research explores the features of blogging, a web-based social technology, as a platform which could support the use and development of self-assessment skills, namely setting learning targets. It is proposed that blogging technology can also support multi-way feedback as a prerequisite of learner target-setting in the context of self-assessment.

2.2 INTRODUCTION

Firstly, the literature was examined to establish an understanding of learner self-assessment and an emphasis was placed on goal-setting as a key factor. The importance of feedback as a crucial element in goal-setting and self-assessment was then detailed. This chapter then outlines the benefits of engaging with self-assessment and explores to what extent young learners can adequately partake in self-assessment. An exploration into the instructional strategies of teaching self-assessment was carried out and an examination of factors which may hinder it. The review proceeds by investigating the features of weblogs which can scaffold good self-assessment practice, and particularly target-setting and multi-way feedback, for pupils. Subsequently, self-assessment models were investigated in order to determine how best to use blogging technology as a method for teaching and supporting self-assessment development.

Finally, the review concludes by summarising the key findings from the literature.

2.3 SELF-ASSESSMENT

Research highlights self-assessment as an essential skill for life-long learning which enables students to become effective learners (Andrade & Valtcheva, 2009; Boud
& Brew, 1995; Fluckiger, et al., 2010; Munns & Woodward, 2006; Taras, 2010). Not only is the ability to self-assess seen as conducive to successful academic achievement, but the transferable skills learned through self-assessment can be utilised once the student has transitioned into his/her professional career (Cassidy, 2007; Lew, Alwis, & Schmidt, 2010). The positive outcomes for students who are taught how to practise self-assessment include heightened responsibility for their learning, more sustained effort, an increased awareness of learning and more personalised learning targets (Andrade & Valtcheva, 2009; Paris & Paris, 2001; Phelps, 2010). Self-assessment encourages learners to take charge of their own learning and to value it further, to have control over learning goals and to develop learning skills.

Practising self-assessment has the potential to develop students’ metacognitive awareness and should be central to teaching and learning (Bingham, et al., 2010). Metacognitive thinking is being aware of one’s own thinking process, having the ability to recognise the appropriate approach to problem solving and readjusting strategies when certain methods fail (Joseph, 2009). Joseph maintains that when students are working independently on a task, it is their metacognitive development that allows them to “plan, regulate and assess” their learning strategies (2009, p. 99). These internal metacognitive thinking skills are central to the ability to self-assess (Bingham, et al., 2010; Cassidy, 2007; Elder, 2010; Kay, Li, & Fekete, 2007; Lew, et al., 2010; Paris & Paris, 2001). This element of self-assessment involves students reflecting on and recognising what they know, monitoring their own learning and evaluating their progress against a measurable standard (Paris & Paris, 2001). Through metacognitive instruction, students gain greater insights on how to work through challenges and determine more accurate approaches to their studies (Joseph, 2009).

Student self-assessment also benefits the teacher in planning and teaching. McDonald (2007) advocates the use of self-assessment in teaching strategies. She maintains that a teacher would benefit greatly from student self-assessment as it would allow the teacher to identify and address learner issues more speedily and as a result modify the teaching approach. Spendlove (2009) also promotes the advantages for the teacher stating that insight into students learning in the middle of the learning process is far more beneficial to the teacher as opposed to test results at the end of a lesson.
Boud has defined self-assessment as “the involvement of students in identifying standards and/or criteria to apply to their work and making judgements about the extent to which they have met these criteria or standards” (Boud, 1991, p. 5), and other researchers, such as Cassidy (2007), Taras (2010) and Kay, Li & Fekete (2007) have adopted this definition also. Elder defines it as “the process by which students come to gauge their level of performance and understanding” (Elder, 2010, p. 5). In accepting these definitions of self-assessment, importance is placed on the involvement of the student in determining what constitutes good or improved work and the process by which they come to make judgements on how to reach a learning goal. While self-assessment is a complex process involving many different interlinked skills (questioning, verbal and non-verbal reflection, problem-solving, goal-directed learning and target/goal setting, sharing of thoughts, awareness of one’s own knowledge, critical evaluation, monitoring, higher-order thinking and metacognitive thinking (Cassidy, 2007; De Wever, Van Keer, Schellens, & Valcke, 2009; Lew, et al., 2010)), this research considers target-setting as a key component of student self-assessment.

2.4 SELF-ASSESSMENT AND TARGET/GOAL-SETTING

Goal-setting theory advocates that setting specific goals in any context can improve performance (Morisano, Hirsh, Peterson, Pihl, & Shore, 2010). In an educational context, two types of goals are recognised. Performance goals focus on comparing abilities of individual students and ‘being the best’. However, mastery goals are centred on learning and the learner, making improvements, mastering a new skill and taking on a challenge (Cauley & McMillan, 2010; Murayama & Elliot, 2009). Setting mastery goals are considered intrinsic in the literature surrounding academic self-assessment (Phelps, 2010). “Appropriately set goals direct students’ attention to completing tasks, can motivate them to greater effort and persistence in performing tasks that move them towards achieving goals...” (Day & Tosey, 2011, p. 518).

There are various factors learners and teachers should consider when setting appropriate learning goals or targets. Goals should be specific and measurable in order for students to know what they are trying to achieve and whether they have achieved it (Hattie & Timperley, 2007; Smithson, 2013). For children, goals should be proximal or achievable in the near future, as they are not developmentally ready to understand
setting long term goals (Bandura, 1986), but should still be appropriately challenging in order to sustain interest (Locke & Latham, 2002). It appears from the literature that goals should be aligned with the popular SMART acronym, first used by George T Doran (1981); learning goals should be Specific, Measurable, Attainable, Realistic and Timely.

The act of structured self-assessment encourages students to think critically and reflect on their level of knowledge on a topic, thus identifying the gaps in their own learning and determining a way to close these gaps by setting learning targets. (De Wever, et al., 2009). Self-assessment requires students to monitor their own work, focus their efforts on meeting the requirements of a given task and then decide where improvements can be made by re-establishing their own mastery goals (Andrade, 2010; Cauley & McMillan, 2010). It promotes the monitoring and reviewing of one’s work with the intention of improving in the future (Boud & Brew, 1995; Lew, et al., 2010).

In the domain of self-assessment, goal-setting exists in two ways; a) co-creation and access to the assessment criteria for a given task (Andrade & Valtcheva, 2009; Kiryakova, 2010; Phelps, 2010; Taras, 2010) and b) personal learning targets set by individual students (McDonald, 2007; Lew, et al., 2010). Overall classroom learning goals can be set in two ways. A teacher can provide a class with a list of learning targets to be reached, or the class can work together in establishing the criteria for good quality work. If teacher and students collaborate when setting the learning goals, students are better equipped in deciding how best to advance their work and they are more invested in their learning when the targets are personal to the learner (Phelps, 2010).

2.5 FEEDBACK TO ENHANCE GOAL-SETTING WITHIN SELF-ASSESSMENT

For students to develop and set effective learning goals and engage in self-assessment, feedback is considered crucially important in the literature (Hattie & Timperley, 2007; Kiryakova, 2010; Lew, et al., 2010; Phelps, 2010). However, feedback in the traditional sense (one-way from teacher to student) is rejected as the only viable form of feedback (Andrade, 2010; Fluckiger, et al., 2010). Studies have indicated that while feedback on student performance is one of the most critical factors in student learning (Hattie & Timperley, 2007), there is also a distinct lack of valuable, informative feedback (Black & Wiliam, 1998; Hattie & Timperley, 2007).
Fluckiger et al. state that feedback needs to be “specific, simple, descriptive and focused on the task” and it should focus on the product, the process and the progress (2010, p. 137). Worthwhile and effective formative feedback can be given not only by the teacher, but also by peers and by the learners themselves through self-assessment and should be centred on definite learning objectives (Hattie & Timperley, 2007). Thought-sharing is a component of self-assessment and thought-sharing can occur in the form of feedback and opinion. Feedback needs to be timely in order for learners to utilise it before the next assignment and to be able to re-adjust their learning goals (Fluckiger, et al., 2010). It should be constructive, mention specific issues and give guidance on resolving the problem (Kiryakova, 2010).

In the 3-step process that is self-assessment, as identified by Andrade, (2010), feedback is the ultimate step which allows self-assessment to occur. The steps of “articulating expectations” (defining the goals/assessment criteria for the task), “critique of work in terms of expectations” (monitoring and measuring the task-in-progress against the aforementioned criteria) and “revising” (using feedback to guide the re-alignment of learning targets and to make improvements) centre on goal-setting and feedback (2010, p. 4). This directly correlates with the 3-step process of feedback that Hattie et al. identify in their research (2007). They define feedback under three questions: Feed-up: Where am I going? (What are the learning goals for this assignment?), Feed-back: how am I going? (What information can I gather from my teacher, peers or myself about my progress or how to proceed with this assignment?) and, Feed-forward: where to next? (What should my next learning target be?). Ultimately, feedback should assist learners in closing gaps in their learning in order to meet their goals.

The figure below (Figure 1) summarises all the skills considered important for self-assessment to take place. Focus is placed on goal-setting with influence from multi-way feedback and thought-sharing in this research.
2.6 SELF-ASSESSMENT AND YOUNG LEARNERS

When considering self-assessment implementation with primary school children, it is important to establish how cognitively ready children are to self-assess and what criteria they deem important during the process. Bingham et al, (2010) maintain that children are capable of self-assessment and are cognitively ready from a young age. A condition for this, however, is the feedback that they receive from teachers and other adults. This feedback directly affects their motivations, their self-perception and their willingness to partake in a learning experience or task. The significance of feedback is highlighted as a fundamental action needed for a young learner to improve their skills of self-assessment. So, it is imperative that for children to successfully partake in self-assessment activities, they are appropriately supported in terms of direction and feedback in school settings (Andrade & Valtcheva, 2009; Cassidy, 2007).

Two factors which are often highlighted in the literature in relation to children’s development of self-assessment skills are age and experience (Paris & Paris, 2001; Stipek & Iver, 1989). It is understood that as children get older their metacognitive capabilities increase and, as a result, their capacity for meaningful self-assessment is greater. There is developmental improvement in 8-12 year olds in self-assessment (van Kraayenoord & Paris, 1997). Experience refers to how children feel about past instances and attempts at
self-assessment. Paris et al, (2001), discuss children checking over their work in search of errors. If this experience proves beneficial and time-efficient for children, they may attempt it again. The same would be true of negative or futile experiences of attempted self-assessment.

Stipek and MacIver (1989) have presented a number of sources of information deemed important by children when assessing their own intellectual ability which are related to the research questions in this study. Up to the age of 7 or 8, children use mastery information and judge themselves considerably on achieving a goal or reaching a performance standard (for example, winning a game, correct answers in a spelling test). They rate praise as considerably important along with how they are treated by teachers. Children are aware that teachers treat children of varying abilities differently, giving more attention to some children or allowing some pupils longer time to answer a question. High-ability students may be given more autonomy in class. Children compare themselves to their peers. Ability grouping is more likely to take place in the upper primary school and children take this into account when making interindividual comparisons and judging their own ability.

2.7 STRATEGIES FOR EFFECTIVE SELF-ASSESSMENT

The literature points to a variety of worthwhile strategies to help learners with self-assessment. Examples include open ended tasks which provoke thought, initiative and engagement, self-reflection and evaluation, activities which allow for monitoring, planning and regulation of learning, the supply of rubrics or assessment criteria and the creation and selection of work samples for portfolios as a method for reviewing, documenting, understanding and discussing the content (Paris & Paris, 2001). Tasks that allow for the assessment of the end product as well as the process (van Kraayenoord & Paris, 1997) are also encouraged. Black et al. in Kirton, Hallam, Peffers, Robertson, & Sobart (2007), suggest more methods for teachers to enhance formative assessment in their classroom which include improved questioning skills, increased response time for students, giving oral and written feedback to accompany marks or grades, encouraging children to engage with peer and self-assessment strategies, sharing the assessment criteria with the children in the class and allowing children to plan, write and edit all written work.
When assignment criteria are articulated clearly, students can self-assess more accurately (Andrade & Valtcheva, 2009). Munns and Woodward (2006) write that children who actively engage in well thought out, structured self-assessment tasks will gain a deeper understanding of the lesson content and their participation in the lessons and tasks will increase together with the value they place on their educational experiences.

Paris et al, (2001) suggest that children can engage in self-assessment by gauging their understanding of a task, by judging improvements from one occasion to the next, by realising how much assistance they needed and by being aware of how they are perceived by others.

2.8 POSSIBLE BARRIERS TO LEARNER SELF-ASSESSMENT

Self-assessment can often be over looked in educational settings even though the advantages of the process are evident (Bingham, et al., 2010). The literature reviewed points to a variety of reasons for this.

The teacher plays an important role in how he/she dedicates time and importance to developing self-assessment skills. We have seen that learners need to be supported with timely feedback when developing their self-assessment and it is widely recognised that it is essential in learning and achievement (Andrade & Valtcheva, 2009; Bingham, et al., 2010; Fluckiger, et al., 2010). However, literature also notes that timely and valuable feedback is not always given to students by teachers (Andrade, 2010; Black & William, 1998; Cassidy, 2007). To overcome the inevitable problem of teachers not always having the time or means to deliver appropriate and meaningful feedback, developing the skills of self-assessment is a worthy and necessary exercise for effective learning and personal improvement (McDonald, 2007). Joseph (2009) also alludes to teachers’ lack of time as a hindrance to the development of learner self-assessment skills. She argues that content can take precedence over learning strategies as teachers feel pressured into focusing on examinations and curriculum goals.

The teacher needs to address the pedagogical approach he/she takes towards assessment. Within Afl, teachers should relinquish complete control of the content and allow the students to have an authority over their learning. They need to make the
learning objectives clear and inform the students of the criteria for success (Stiggins & Chappuis, 2012). Students who do not have a clear understanding of what is expected of them or are unaware of the standards against which they are measuring themselves find the process of self-assessment near impossible (Black & Wiliam, 1998). Some teachers find sharing control in the classroom difficult and thus true formative assessment cannot take place (Spendlove, 2009). The opposite is also true for teachers who have no knowledge of how, in terms of standards, the students are judging themselves. If teachers adequately examine students’ self-assessment criteria, they can gain valuable insights into their metacognitive development (Elder, 2010). Bingham et al. (2010), share these concerns; the use of the “thumbs up, thumbs down” or the “smiley faces” systems do not adequately examine learners’ abilities or comprehension and therefore learner capabilities are not understood.

If the educational environment or the teacher is focused on grades or a reward system, children will look for ways to gain the reward rather than enhance their learning. As a result, children may not fully partake in self-assessment for fear of admitting failure or misunderstanding and therefore losing out on the reward (Black & Wiliam, 1998). Students are reluctant to partake in self-assessment if they fear it will influence their teacher’s final grade or opinion of their work (Lew, et al., 2010). This correlates with literature on whether or not children are honest or reliable in their self-assessment (Dunning, Heath, & Suls, 2004).

2.9 WEB TECHNOLOGY SUPPORTING SELF-ASSESSMENT

Literature on the suitable affordances of web-based technology in fostering the student self-assessment process was consulted. Web pages called “Web Logs”, commonly known as blogs, are proposed as a suitable technology for supporting students in self-assessment as they foster heightened student reflections and higher-order thinking (Bartholomew, Jones & Glassman, 2012; Deng & Yeun, 2011; Wopereis, Sloep & Poortman, 2010; Zawilinski, 2009), sub-skills of self-assessment which are referred to by Cassidy (2007). A blog is “a frequently updated personal website with dated entries displayed in reverse-chronological order...”posts” can be easily commented on, offering opportunities for discussion and feedback”, and complicated computer skills are not required (Wopereis, Sloep, & Poortman, 2010, p. 247). The user’s ability to personalise
and edit his/her blog gives ownership to the author which correlates to the ownership of learning when formative assessment is promoted. The reflective nature of blogs is also emphasised in Deng’s research (Deng & Yuen, 2011) and self-reflection is a key component of self-assessment. This section explores how blogging can support the goal-setting and feedback elements of self-assessment examined earlier in this chapter.

Firstly, in examining the structure of a blog and the reverse-chronology of each blog entry or post, (with the latest entry preceding all other entries on the page), it is argued that this feature lends itself to the process of critical self-reflection (Deng & Yuen, 2011). In having students post their work in reverse-chronological order, blogging can facilitate the process of reflecting and improving on the preceding entries by setting new targets for the next post. It provides a platform on which to display the developmental process and captures the order of the learning experience (Wopereis, et al., 2010).

Having identified feedback as a vital component of self-assessment, the affordances of blogging are suited to its creation and consumption. The social features of blogging, namely commenting and ease of access through the internet, can potentially host teacher and peer dialogue about learning and assessment in the form of feedback (McDermott, Brindley, & Eccleston, 2010), and it also fosters the sharing of thoughts within self-reflection (Nelson, Christopher, & Mims, 2009; Wopereis, et al., 2010). According to Sung et al. (Sung, Chang, Chiou, & Hou, 2005), personal interactions lie at the heart of self-assessment, and web technologies provide an ideal platform for such communication. Mc Dermott et al. (2010) offer a number of reasons affirming blogging as an appropriate medium for feedback; in having students comment publicly on their peers’ work, the students themselves become more aware when judging their own work; as students become more accustomed to blogging, they repeatedly engage in feedback in a more natural way; and as feedback commentary can allow students to identify gaps in their knowledge, it is proposed that blogs can help students understand the developmental process that is learning and how knowledge deepens over time. Fluckiger et al. support blogging as a means of delivering timely feedback and note that all students can benefit from feedback given to any student (2010). Also, when students are commenting on content in a socially interactive way, they are reflecting further on the content and interaction with it increases (Wang & Woo, 2008). When a student’s blog
receives a number of comments, this can “reinforce future blogging behaviour and offers them a chance for self-reflection” (Bartholomew, Jones, & Glassman, 2012, p. 22) which in turn can help identify and reach learning targets. However, Wopereis et al (2009) state that the fact that large audiences have the potential to read and comment on posts can have both positive and negative effects. In their study, their student participants stated that they deemed a platform where members were limited to just the student body was more important and safer for them as opposed to a global platform.

The social interaction that is fostered by blogging also facilitates the co-creation of assessment criteria and learning targets. In fostering thought-sharing, commenting and peer interaction through blogging (Deng & Yuen, 2011), assessment standards can be constructed and created on a whole class level with ease of access to each learner’s contributions (McLoughlin & Lee, 2010). Dunlap et al. (2011) concur that blogging can support goal-setting and student intentionality stating that partaking in blogging encourages learners to be “intentional and reflective learners” (p. 7). The fact that students are aware they are writing for a public audience can serve as a motivating factor to engage in increased analysis and criticism of their work (Ellison & Wu, 2008; Luehmann & Frink, 2009) which are intrinsic to self-assessment. This level of interaction, multi-way commenting and two-way feedback is not fostered to the same extent when using traditional pen and paper methods. Blogging can re-focus student attention on peer communication and shift the focus from the teacher at the top of the class (Ellison & Wu, 2008), thus allowing for knowledge and thought-sharing to occur between students and for it to be accessed more conveniently.

A feature of any blog is that the content is personal and controlled by the author, lending itself to the creation of personalised learning goals and ownership of learning. Each student blog is customisable, editable and individual (Wopereis, et al., 2010). In seeking a technology platform that encourages student self-assessment, these features are regarded as important when we consider the theories behind self-assessment. Self-assessment promotes student autonomy and the assessment of work as “work in progress”, where students should be allowed to edit and re-draft assignments while engaging with the process.
Tags and categories are a feature of blog pages which can offer advantages to students and teachers when blogging for the purpose of self-assessment. Posts can be published under certain categories and tags can be used similarly to search. When a post is tagged, the author assigns a term for that post and as a result, all information in the blog under that particular “tag” can be easily viewed (Tsai, 2011). For example, the tag of “self-assessment” could be used to allow all blog users to view all student posts on self-assessment of their work.

Other social aspects of blogging noted as beneficial in an educational context include its inter-connectivity with the World Wide Web. In linking to other websites, other opportunities for connection and discussions become possible (Deng & Yuen, 2011; Luehmann & Frink, 2009). This is beneficial in the self-assessment process as students verify and seek information when attempting to attain their learning goals.

Many of the difficulties that teachers and students face in terms of location and lack of time can be effectively addressed using web technology (Sung, et al., 2005). If we are to understand feedback and social interaction with peers as an essential part of self-assessment, then facilitating this electronically has obvious advantages. Students are no longer constrained to face time with either their peers or their teachers, a problem noted by Andrade et al. (2009). The restrictions of physical location are also removed as both parties are able to log-on and engage in their work at a convenient time outside of class time as well as in class, allowing for increased peer interaction and increased opportunity for multi-way feedback. This also has advantages for students who make comparisons to the amount of time a teacher spends with individual students. In a web environment, children are not under pressure to answer quickly in front of their peers, thus avoiding the possibility of delayed response time being perceived as a lack of knowledge (Kirton, et al., 2007).

Paris et al (2001) refer to learner portfolios as an effective tool for learner self-assessment and monitoring. Blogs act as an ideal platform for the creation of an online e-portfolio, where learners can select work of many different mediums (text, image, sound etc.) and file the work in one easily accessible place. Ellison & Wu (2008), noted in their
research that electronic portfolios support learner autonomy and maintain focus on targets.

2.10 SELF-ASSESSMENT MODELS

Significant attention was given to Taras’ research on models of self-assessment (2010). He deemed the “self-assessment with integrated tutor feedback” model as a stronger model, and the “learning contract design” model (Boyd, Adeyemi-Bero, Blackhall, & Cowan, 1984), as the strongest. The former model requires students to consider peer and tutor feedback before engaging in their own self-assessment, the rationale being that students can now see their work from a different perspective and amend if necessary. The latter model supports students self-assessing to their own standards, with learners receiving support and feedback from teachers and peers on a regular basis. Learners were required to respond to this feedback, meet weekly targets, and present their work on public notice boards, with the tutor deciding whether or not the assessment criteria had been met.

2.11 SUMMARY

Self-assessment in the field of education has been given considerable significance in terms of strengthening individuals as learners and preparing them for workplace demands. The skills which are encompassed by self-assessment are vital in empowering individuals to determine, for themselves, areas in which their knowledge and understanding needs expansion.

For this study, goal-setting was investigated and its occurrence as a result of thought-sharing and feedback. It is advocated that goal-setting can encourage learners to focus clearly on their learning, and determine ways to achieve improved standards of work. Self-assessment theories promote inclusion of all learners in setting targets at the start of a learning experience, making the assessment criteria available to all students prior to commencement of the lesson or assignment. Goal-setting is influenced by feedback as it supports the learner in setting appropriate targets. Within self-assessment, it is proposed that feedback may be given by both peers and the teacher. It should be timely, specific, and focused on the learning goal in question.
Effective strategies for teaching self-assessment were explored, together with literature surrounding blogging technology as a supportive web-based social platform which could scaffold the acquisition of self-assessment skills. It was determined that “Web Logs” have suitable affordances which could enable learners to engage in self-assessment, especially goal-setting, multi-way feedback and thought-sharing.

The following chapter explains how a structured blogging experience was designed and implemented to scaffold young students when learning how to self-assess.
3 DESIGN

3.1 INTRODUCTION

The literature surrounding learner self-assessment promotes it as a valuable skill and one which should be given substantial importance (Andrade & Valtcheva, 2009; Bingham et al., 2010; Fluckiger, et al., 2010; Spendlove 2009). The previous chapter argues that blogging technology has various affordances which can support the self-assessment process (Bartholomew, et al., 2012; Deng & Yuen, 2011; McDermott, et al., 2010; Nelson, et al., 2009; Wopereis, et al., 2010).

“WE-SAW”; a Web-enhanced Experience – Self-Assessment with Weblogs, is designed to develop and enhance usage of learner self-assessment skills. It is proposed that the features of blogs could improve and support development and practice of self-assessment skills, with particular focus on goal-setting and feedback.

“WE-SAW” is a seven-phase process model around which tasks are set. Firstly, each phase will be explained. Secondly, the technological affordances of blogging as used for self-assessment in “WE-SAW” will be outlined and finally, the selection criteria for the chosen blogging platform for the context of this study will be clarified.

The design is presented as a structured blogging model to support learners in acquiring self-assessment skills, with particular focus on the co-creation of learning goals as assessment criteria and fostering multi-way feedback and thought-sharing.

3.2 DESIGN OF “WE-SAW” – A SEVEN PHASE PROCESS

Considering the literature and theories reviewed, a process model was designed around which each task in “WE-SAW” would be structured (Figure 3.1). For this study, two tasks based on writing genres were incorporated into the experience (Task One: procedural writing and Task Two: report writing).
Figure 3.1: The WE-SAW process model

1. Task is set
   - Teacher posts starter activity

2. Assessment criteria established
   - Students post target-setting

3. Task is attempted and published
   - Ideas are planned, target-setting

4. Task is assessed by the learner
   - Reflection, target-setting, multi-way feedback

5. Task is re-attempted
   - Re-editing

6. Final draft is published
   - Post to blog

7. Reflection

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Outcomes

- Students comment – thought-sharing
- Assessment chart is created and posted – desired outcome determined
- Peer and teacher feedback, thought-sharing
- Learning targets are re-set, gaps in learning identified
- Self-assessment, feedback and new learning targets are set

Inputs

- Chapter 3 - Design
1. **PHASE ONE (Fig. 3-2)** – **task objectives are established and shared**: It is important to set objectives that incorporate the strategies advocated by the literature, for example, tasks provoking thought and initiative where the process would be as important as the end product (Paris & Paris, 2001). In this initial phase, learners view the start of the task in the form of a blog post on the teacher/researcher blog page. Here participants view links to websites containing examples of good and bad practice and make observations about what they see by commenting on the post. This supports student involvement in setting the assessment criteria and goals by allowing them the opportunity to identify standards which they believe their efforts should reach.

2. **PHASE TWO (Fig. 3-3)** – **assessment criteria are established**: Considering the comments left by participants in Phase One, this phase co-creates standards against which the task is measured (Boud, 1991) and lays out clear expectations (Andrade & Valtcheva, 2009) which are paramount when teaching students how to self-assess. The comments from Phase One are gathered by the teacher, generated into a list of criteria and posted to the teacher’s blog page.

3. **PHASE THREE (Fig. 3-4)** – **participants attempt to write their own work for the first time**: When attempting this initially, students are encouraged to pre-plan their answers which fosters engagement in metacognitive thinking (Joseph, 2009), as they must think about what they already know. In task two (report writing), the children
posted KWL Charts (what I know, what I want to know, what I learned), in order to focus them towards task objectives (see Fig. 5-6). They also used mind mapping to organise their thoughts. They publish their plans and then proceed to publish their first attempt at writing a procedure/report. Subsequently, constructive feedback and thought-sharing from the teacher and peers is encouraged (Cassidy, 2007; Fluckiger, et al., 2010).

4. PHASE FOUR (Fig 3-5) – write a self-assessment: Taking into consideration the comments left on their task by the teacher and peers and their own thoughts, students now engage in self-assessment of their writing. In this phase, students practise the skills of questioning, problem solving, reflection, higher-order thinking and target-setting which are central to self-assessment (Cassidy, 2007; De Wever, et al., 2009; Lew, et al., 2010). The blog facilitates this phase as learners can use feedback received through commenting, they can look at work of their peers to make comparisons and use targets created by the group as assessment criteria to establish if goals have been reached. The participants write these posts in colour, green writing for sections of their work which they feel they wrote well and where writing targets were met, orange for areas they feel need improvement, and red for targets which were not met or omitted (see Appendices 8-13 & 8-14).
5. **PHASE FIVE** *(Fig. 3-6)* – editing and changing, making improvements: Once the gaps in the learning are identified in the previous step, the learners are afforded the opportunity to edit their initial answers, thus moving towards attaining a goal (De Wever, et al., 2009), constantly referring to assessment criteria and comments made on their first drafts.

6. **PHASE SIX** *(Fig. 3-7)* – write the final version of the writing: The final version is posted to the blog, appearing over the earlier versions. Publishing to a public audience requires the skill of critical evaluation as learners are aware that the public can see their work. Having the tasks appear in reverse chronological order allows students to monitor their previous learning and apply it to the next task (Lew, et al., 2010). [Phases Five and Six could occur more than once.]

7. **PHASE SEVEN** *(Fig. 3-8)* – reflecting on the process and thought-sharing: Here, participants post their thoughts on the process. It is a phase to reflect on the learning that has, or has not taken place.
3.3 AFFORDANCES OF BLOGGING USED IN “WE-SAW”

In considering self-assessment skills and methods for creating a learning experience with self-assessment, the researcher chose blogging as a suitable supportive technology. As explored earlier, blogging technologies have affordances that can support self-assessment for learning (Bartholomew, et al., 2012; Deng & Yuen, 2011; Ellison & Wu, 2008; McLoughlin & Lee, 2010; Sung, et al., 2005).

The following diagrams show how the affordances of blogging support self-assessment and in what phases of the “WE-SAW” process model each affordance is used. The diagrams are read from the affordance of the blogs, to the self-assessment skills supported by that affordance through to which phase of “WE-SAW” each skill is practised.

3.3.1 Reverse chronological order

![Diagram showing reverse chronological order]

This supports the skill of **reflection** as the participants are able to look back on preceding entries on their blog page and identify where learning targets were or were not met. This is encouraged in Phases Four through Seven of the process model as participants embark on self-assessing the first version of their work, editing it, posting an improved version and reflecting on the process. **Critical evaluation** is also supported with reverse chronological order as participants aim to evaluate previous posts and improve standards going forward. The aim of the process is to identify areas for improvement and make necessary changes. This happens in Phases Four, Five and Seven. As participants read back through their posts in this order, **target-setting** for
the next post is encouraged as participants want to improve on preceding entries; to do this new goals must be formed. *(See Fig. 3-10)*

### 3.3.2 Social software/public audience

The blog is an open space on the internet that allows for **multi-way feedback** to occur as anyone is capable of reading the posts and comments. When participants write version one of their work in Phase Three and version two in Phase 6, they receive and give feedback to other participants, and the teacher participates in this also. As blogging is on the internet, **target-setting** is facilitated as links to other web pages showing examples of good and bad practice are possible. This occurs in Phases One and Two as participants view examples of report and procedure writing, aiming to identify features of each style and adopt these strategies as targets for their own writing. It allows for co-creation of targets and assessment criteria as the ideas are shared on a public, accessible platform. **Critical evaluation** is supported by the public domain of blogging as participants engage openly with each other’s pages and can determine their standards in relation to their peers and judge their progress. *(See Fig. 3.11)*
3.3.3 Commenting

The commenting feature of blogs allows for interaction to take place between writers and readers, supporting **thought-sharing** and **multi-way feedback**. In “**WE-SAW**”, feedback is encouraged between all participants and the teacher. In response to the objectives of each task, the participants are able to give and receive feedback on the work published by each participant. Conversations are encouraged around the topics in the post and everyone has an equal chance to share their thoughts, give feedback and engage and react to feedback received. With no physical constraints and logistical complications, the learners can engage in a dialogue which supports their own self-assessment development. These interactions are at Phase Four when the learners write their self-assessments of initial attempts at the task and give/receive feedback and at Phase Six when the final versions of the task are published and they once again give/receive feedback. The commenting tool also supports **target-setting** at Phases One and Two. These phases request the participants to set learning targets and co-create assessment criteria against which their writing will be measured. With thoughts easily published and shared through commenting, the cohort is able to write and respond to targets set by the group. *(See Fig. 3-12)*
3.3.4 Edit and re-edit posts

Editing supports the learner in both versions of their writing at Phases Three and Five. When learners are critically evaluating and reflecting on their progress, errors can be easily modified. The model is designed so that participants copy version one of their writing and paste it into a new post at Phase Five and then make the necessary changes as informed by their own self-assessment at Phase Four, and by feedback. Without the frustration of re-starting, edits are easily made and progress is evident as the earlier version of the task still exists in published form in Phase Three. As participants have the tools available to easily make necessary changes, attaining learning targets is the focus of the phase as opposed to re-writing the entire task. (See Fig. 3-13)

3.3.5 Personalised space

Participants in “WE-SAW” have their own personalised blog pages with their own avatars and page designs as selected by them. Theories on self-assessment promote
student autonomy, so in having a **personal space** in which to work, personal targets are formulated. There is emphasis on process in self-assessment, so control of a personalised learning area scaffolds setting personal learning targets relevant to the work within that space. *(See Fig. 3-14)*

### 3.3.6 Tags and categories

![Figure 3-14: The affordances of tags and categories as used in WE-SAW](image)

When blogging, each entry can be categorised under each task and tagged in relation to content. **Thought-sharing** is supported here as participants can search for the information they are looking for. For example, a participant may wish to search all information in the category TASK ONE under the tag “writing targets”. In viewing relevant and connected information in this way, the process of **target-setting** is supported as learners search back through their own page with a view to identifying areas for further development within each tag or category. *(See Fig. 3-15)*

### 3.4 SELECTION OF THE BLOGGING INTERFACE

The researcher investigated a number of suitable blogging platforms before choosing [www.kidblog.org](http://www.kidblog.org). The screen shots in *Appendix 8.10* illustrate two personalised interfaces.

Certain criteria are deemed necessary to successfully implement “**WE-SAW**” with children. As this implementation concerns young children between 9 and 10 years of age, it is important that the interface is interesting, attractive and child-friendly and easily navigated. In the interest of keeping children safe online, it is crucial that participants should not need to give personal information or pay to use the technology.
This particular platform was selected as it conformed to these requirements and is a dedicated, safe and secure site designed especially for educational use by children. It is advertisement free and controlled by the teacher/administrator who can preview comments/posts before publishing to the internet in order to control unsuitable content (for example, accidental publishing of identity or insensitive comments). It should be noted that the participants were taught about internet safety for children prior to the commencement of this study. All comments and posts were pre-approved by the researcher for the sole purpose of protecting each participant.

3.5 CONCLUSION

The objective of the seven-phase “WE-SAW” process is to scaffold users when practising and developing their self-assessment skills. The technology acted as a supportive platform for participants to interact and engage with self-assessment. The design was centred on the affordances of blogging and how these affordances can support goal-setting and interaction with multi-way feedback. This social and public technology facilitates this with thought-sharing through multiple user comment exchanges, through the reverse-order of the posts allowing for reflection and development of ideas, and through its interconnectivity with users and readers as a motivation for critical reflection.

The design is informed by theories of how to teach and foster learner self-assessment, and is supported by the literature around the affordances of educational blogging.

The design is a self-assessment based process model, which relies on blogging technology, and has established the following structure:

- Participants engage in initial phases by seeing examples of good and bad practice, and then contribute their ideas as to what constitutes good practice by commenting and posting.
- Participants publish their first attempts at the task based on co-created assessment criteria written by themselves and their peers.
• Using feedback received from their peers and teacher, and the previously established list of assessment criteria, participants engage in the self-assessment phase, with a view to improving the original version of their work.

• When self-assessment is completed, participants edit and re-submit their work and reflect on the entire process.

When participants post on the blog, a collection of completed pieces of work at each phase of the task are visible. First attempts at writing prior to the self-assessment phase are also published. This allows participants, readers and the teacher to see concrete improvements in work and evidence of attaining goals. Learner reflections and thoughts are published on the blog allowing for evidence of self-assessment to be analysed and interpreted. The methods used to analyse “WE-SAW” enhanced self-assessment are presented in the next chapter.
4 RESEARCH METHODOLOGY

4.1 INTRODUCTION

This research proposes the use of blogging technology as a teaching tool to enhance and encourage the use of self-assessment skills, with particular focus on learner target-setting and multi-way feedback from the learners and teacher. This chapter outlines methods used in attempting to answer the following research question:

*Can structured blogging be used to support the acquisition of learner self-assessment skills?*

and sub-questions:

*Do learners engage with “WE-SAW” for the purpose of practising and developing self-assessment strategies?*

*Does “WE-SAW” support the learner when attempting to learn self-assessment skills, and if so, how?*

*How are the features of “WE-SAW” used to practise goal-setting and multi-way feedback?*

*Does participation in “WE-SAW” result in appropriate self-assessment, and as a result, are improved standards of work evident?*

This chapter details the implementation of the study, research methodology, data collection tools and analysis, and some details about the participants and the researcher. Information regarding implementation of the learning experience is outlined along with ethical concerns which were considered prior to the undertaking of this research.

4.2 IMPLEMENTATION

22 participants took part in “WE-SAW” in a dedicated computer room in the researcher’s school (*see Appendix 8-9*). This location was chosen as it is the author’s workplace and the participants were students in her class. Participants explored the blog for one week prior to implementation, in order to familiarise themselves with the platform and experiment with blogging features.
Each student worked at her own desktop computer, while the teacher (who is the lead researcher in this study), used a data projector and computer to assist students technically.

"WE-SAW" took place over a period of 5 weeks, with a maximum of 4 hours of timetabled blogging occurring each week during school hours. Students were also encouraged to blog outside of school if convenient and if they had permission from their parents/guardians.

4.3 RESEARCH METHODOLOGY – A CASE STUDY

The Merriam-Webster Dictionary (2009) defines a case study as “an intensive analysis of an individual unit (as a person or community) stressing developmental factors in relation to environment”.

This research is not concerned with developing theory, but examining blogging as an instructional instrument for teaching self-assessment strategies. Therefore, a case study approach was adopted in order to answer the research questions above. Deconstructing the above definition, this research focused on one unit of analysis, (22 4th class children), was bound to a single classroom situation and sought to examine the developmental factors in relation to the context. In this instance, the developmental factors refer to the evidence of self-assessment practice, and the context is blogging within an educational framework in a classroom setting. Gillham (2000) offers a further insight into the definition of the “case” stating that it is in a present, real life context, which is precisely what children in a classroom situation are. He also maintains that case studies are undertaken to answer specific research questions using multiple sources of evidence, a view which Creswell supports. Creswell (2012) defines a case study as “an in-depth exploration of a bounded system based on extensive data collection” (p.465). In this instance, a detailed, holistic examination of the process was needed and as such, a case study approach was deemed suitable (Feagin, Orum, & Sjoberg, 1991). The researcher was interested in how the technology supported the participants’ development of self-assessment, and the case study approach aims to highlight data from the participants’ perspectives (Tellis, 1997).
A mixed methods approach to data collection was adopted in order to both “broaden and strengthen the study” (Yin, 2006, p. 41). As this is a single case study, using mixed methods is considered worthwhile in order to produce “converging evidence” (Yin, 2006, p. 41) which is arguably more convincing than what may be attained using a single source.

### 4.4 DATA COLLECTION AND ANALYSIS

<table>
<thead>
<tr>
<th>DATA COLLECTION TOOL</th>
<th>DATA SETS</th>
<th>ANALYSIS</th>
<th>RESEARCH OBJECTIVES</th>
</tr>
</thead>
</table>
| PHYSICAL ARTEFACT (Blog) | • User blog pages  
• User posts  
• User comments  
• Amount of contributions per user and per task | • 9 blogs printed as a word document (representative sub-set of the cohort), coded and themed by hand.  
• 22 blogs analysed quantitatively for number of posts and comments, contributed and received using administrative data from kidblog and manual counting. | • To examine usage of WE-SAW for levels of self-assessment, goal setting and engagement with multi-way feedback through blogging affordances  
• To determine and understand differing quantitative values of engagement per user |
| FOCUS GROUP INTERVIEWS  | • Group A (5 participants)  
• Group B (5 participants)  
• Group C (5 participants)  
• Group D (6 participants) | • Group A and B fully transcribed, coded and themed by hand.  
• Group C and D partially transcribed, coded and themed to support findings from groups A and B by hand. | • To understand: a) how learners used WE-SAW, b) their perception of each phase and affordance of WE-SAW, and c) to investigate emerging themes |
| OBSERVATIONS             | • Observational notes  
• Audio recordings | • Notes analysed to verify other findings  
• Audio transcribed and analysed to verify other findings | • To examine situational occurrences, e.g. technical hindrances, distractions, support required etc. |

Table 4-1: Data collection tools, analysis and purpose
Using different means of data collection and analysis allowed for the researcher to effectively address the research questions with qualitative and quantitative results (as detailed in Table 4-1) A preliminary exploratory analysis (Creswell, 2012) was carried out in order to get a general sense of the data. All data collected was read and reviewed several times to gain deeper understandings of the occurrences throughout “WE-SAW”.

4.4.1 Observations

Observation involves watching human participants with a view to gathering first-hand, open-ended information at the site of the research (Creswell, 2012). It is particularly useful when observing children as they may not be able to articulate clearly the instances which an adult researcher may observe.

The researcher attempted to gather incidental data about the blogging experience through observation. However, as the researcher is also the teacher, unavoidable instances arose preventing total immersion in the observer role (interruptions from classes/colleagues, student needs, technical issues, role of teacher). As this was a foreseen difficulty, audio recordings were made for the purpose of reinforcing observational data. While inherent classroom “chit-chat” hindered some of the recordings, they proved somewhat valuable in obtaining information regarding participant questions, difficulties with the technology and incidental happenings within each session, and proved useful in supporting researcher observational notes which were made directly after each session (See Appendix 8-11).

Yin (2009) suggests having more than one person in the observational role. However, as this study took place during normal school hours, this was not a viable option for the researcher and was not deemed feasible by school management.

4.4.2 Participant generated data

Here, the blog itself acted as an instrument of data collection. It is the primary data source as this research is attempting to establish if blogging technology can support learners when learning how to self-assess their work. In examining the comments and posts that were written by the participants over the period of the study, insights are gained into how the technology itself is supportive of self-assessment. Analysis of what ways the users engaged with the technology in terms of content, frequency of posting
and commenting, and evidence of goal-setting and engagement with feedback was carried out. The researcher/teacher’s administrative access to the blog facilitated data analysis as all user-generated data could be searched and sorted under a) user, b) posts, c) comments and d) word or phrase inclusion. It is in this data set that self-assessment facilitated by blogging technology will be clear.

4.4.3 Focus group interviews

The researcher collected qualitative data by conducting interviews with small groups of participants three days after the experience concluded asking open ended questions to understand their experiences with “WE-SAW”. Creswell (2012) writes that asking open-ended questions allows participants to best express themselves without being swayed by perspectives of the researcher and they can also be useful in measuring attitudes. The interview structure was a “focused interview” (Yin, 2009, p107) as participants were interviewed for a short period of time (40 – 45 minutes) and while the interview was conversational in manner, it remained focused on questions which were designed with a view to answering the research questions (See Appendix 8-8 for protocol and 8-12 for analysis sample). Participants were very eager to speak and conversation was plentiful. It was considered worthwhile to investigate the experience from the learners’ point of view as the users of “WE-SAW” could offer valuable insight as to how the technology supported their self-assessment practice.

While Yin (2009) considers interviews to be an essential source of data in case studies, he also warns of their weaknesses. The responses given by the participants may be biased, poorly articulated and recalled inaccurately and therefore should be corroborated with information from other data sets. In order to ensure valid and reliable information was collected when conducting the interviews, the codes and themes emerging from the focus group data were only deemed worthy of inclusion if the theme emerged in three (or all) of the four focus groups.

It was decided that a focus group, rather than one to one interviews, would be best as participants in this study are children. It was considered most appropriate for two reasons; shyer, reluctant children might offer more insights in a group setting and, for ethical reasons, it was considered more appropriate for children not to be interviewed
individually. The researcher made every effort to ensure all group members contributed to the discussion. One participant was not interviewed due to absenteeism.

4.5 PROFILE OF THE PARTICIPANTS

The participants were from one class of 4th Class girls of varying academic ability. Even though selection was opportunistic as the invited participants were students of the researcher, it was also purposeful as the researcher was interested in investigating a technology enhanced learning experience where learners/students, the unit of analysis (Cresswell, 2012), would be practising and using the skills of self-assessment. The average age of participants was 10.0 years. The researcher participated in the role of teacher/observer/researcher and blog administrator.

4.6 RESEARCHER BIAS

The researcher is the teacher of the participating children, so prior knowledge of academic ability and attitude to school was known through daily contact. She conducted "WE-SAW" as the teacher/researcher/blog administrator and participated in the multi-way feedback on the blog. Every effort was made to ensure the findings of this study are presented in a valid, non-biased manner.

4.7 ETHICS

Permission to carry out the study was granted prior to implementation by the school Board of Management and ethical approval was granted by the Ethics Committee in the School of Computer Science and Statistics in Trinity College, Dublin. Permission was also granted by the participants themselves and by their parents/legal guardians after they were informed of the procedures of this study (See Appendices 8-1 to 8-7). All participants were made explicitly aware that participation was entirely voluntary and that any participant could exit the study without explanation or consequence.

4.8 CONCLUSION

This chapter presented the research as a case study and discussed methods of data collection and how they were used. Participant information was presented along with researcher bias and ethical considerations. Chapter Five will detail the findings of this research and discuss if and how blogging technology supports learner self-assessment practice and acquisition.
5 FINDINGS AND DISCUSSION

The research question underpinning this study is:

*Can structured blogging be used to support the acquisition of learner self-assessment skills?*

and sub-questions are:

*Do learners engage with “WE-SAW” for the purpose of practising and developing self-assessment strategies?*

*Does “WE-SAW” support the learner when attempting to practise self-assessment skills, and if so, how?*

*How are the features of “WE-SAW” used to practise goal-setting and multi-way feedback?*

*Does participation in “WE-SAW” result in appropriate self-assessment, and as a result, are improved standards of work evident?*

To answer these questions, analysis of the data gathered, as detailed in the previous chapter, was undertaken. To present reliable and valid findings, evidence was collected through researcher observations, student focus group interviews and user-generated data on the blog. Data sets collected through these instruments are used to present and discuss the results as a detailed narrative discussion (Creswell, 2012) with quantitative data discussed and presented with accompanying tables and charts. A concluding discussion ends this chapter.

5.1 ENGAGEMENT WITH “WE-SAW” – A TOOL FOR PRACTISING SELF-ASSESSMENT

5.1.1 Participant contributions

This section details how often learners contributed to their blog when practising self-assessment. Observational data is used to elucidate quantitative findings. (Screen-shots from the student blog are included as supporting evidence, but the author is not
identified to protect anonymity. Quotes from observations and interviews are given identifiers which correlate with Table 5-1)

Table 5-1 presents information for each participant by age, attendance at “WE-SAW”, and contributions made and received by each participant on the blog. There was an average attendance rate of 96%, with P19 (P = Participant), missing the majority of Task One.

<table>
<thead>
<tr>
<th>Participant ID</th>
<th>Age (Yr, Mnth)</th>
<th>Attendance</th>
<th>Posts</th>
<th>Comments made</th>
<th>TASK ONE</th>
<th>TASK TWO</th>
<th>Comments received</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>10,4</td>
<td>100%</td>
<td>11</td>
<td>10</td>
<td>6</td>
<td>4</td>
<td>36</td>
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<tr>
<td>P2</td>
<td>9,9</td>
<td>88%</td>
<td>7</td>
<td>9</td>
<td>6</td>
<td>3</td>
<td>18</td>
</tr>
<tr>
<td>P3</td>
<td>9,8</td>
<td>100%</td>
<td>11</td>
<td>21</td>
<td>10</td>
<td>11</td>
<td>31</td>
</tr>
<tr>
<td>P4</td>
<td>10,4</td>
<td>100%</td>
<td>12</td>
<td>23</td>
<td>12</td>
<td>11</td>
<td>43</td>
</tr>
<tr>
<td>P5</td>
<td>10,0</td>
<td>94%</td>
<td>10</td>
<td>29</td>
<td>12</td>
<td>17</td>
<td>26</td>
</tr>
<tr>
<td>P6</td>
<td>9,7</td>
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<td>9</td>
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<td>22</td>
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<td>P7</td>
<td>9,5</td>
<td>100%</td>
<td>12</td>
<td>60</td>
<td>34</td>
<td>26</td>
<td>43</td>
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<td>P8</td>
<td>9,11</td>
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<td>8</td>
<td>16</td>
<td>5</td>
<td>11</td>
<td>17</td>
</tr>
<tr>
<td>P9</td>
<td>9,7</td>
<td>100%</td>
<td>12</td>
<td>15</td>
<td>6</td>
<td>9</td>
<td>32</td>
</tr>
<tr>
<td>P10</td>
<td>10,2</td>
<td>94%</td>
<td>10</td>
<td>43</td>
<td>8</td>
<td>35</td>
<td>20</td>
</tr>
<tr>
<td>P11</td>
<td>10,5</td>
<td>94%</td>
<td>11</td>
<td>22</td>
<td>12</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>P12</td>
<td>10,3</td>
<td>100%</td>
<td>11</td>
<td>12</td>
<td>5</td>
<td>7</td>
<td>19</td>
</tr>
<tr>
<td>P13</td>
<td>9,10</td>
<td>88%</td>
<td>9</td>
<td>28</td>
<td>21</td>
<td>7</td>
<td>29</td>
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<td>P14</td>
<td>9,5</td>
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<td>5</td>
<td>9</td>
<td>22</td>
</tr>
<tr>
<td>P15</td>
<td>10,5</td>
<td>100%</td>
<td>10</td>
<td>8</td>
<td>4</td>
<td>4</td>
<td>29</td>
</tr>
<tr>
<td>P16</td>
<td>10,9</td>
<td>100%</td>
<td>12</td>
<td>28</td>
<td>7</td>
<td>21</td>
<td>31</td>
</tr>
<tr>
<td>P17</td>
<td>9,9</td>
<td>100%</td>
<td>12</td>
<td>57</td>
<td>21</td>
<td>36</td>
<td>37</td>
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<tr>
<td>P18</td>
<td>9,8</td>
<td>94%</td>
<td>11</td>
<td>26</td>
<td>13</td>
<td>13</td>
<td>27</td>
</tr>
<tr>
<td>P19</td>
<td>9,7</td>
<td>82%</td>
<td>8</td>
<td>21</td>
<td>6</td>
<td>15</td>
<td>26</td>
</tr>
<tr>
<td>P20</td>
<td>10,6</td>
<td>100%</td>
<td>11</td>
<td>50</td>
<td>14</td>
<td>36</td>
<td>30</td>
</tr>
<tr>
<td>P21</td>
<td>10,4</td>
<td>100%</td>
<td>11</td>
<td>37</td>
<td>15</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>P22</td>
<td>10,2</td>
<td>100%</td>
<td>12</td>
<td>31</td>
<td>16</td>
<td>15</td>
<td>35</td>
</tr>
<tr>
<td>TOTAL</td>
<td>-</td>
<td>-</td>
<td>232</td>
<td>569</td>
<td>242</td>
<td>327</td>
<td>615</td>
</tr>
<tr>
<td>AVERAGE</td>
<td>10,0</td>
<td>96%</td>
<td>10.5</td>
<td>25.9</td>
<td>11</td>
<td>14.9</td>
<td>28</td>
</tr>
<tr>
<td>Teacher</td>
<td>N/A</td>
<td>100%</td>
<td>11</td>
<td>222</td>
<td>73</td>
<td>149</td>
<td>171</td>
</tr>
<tr>
<td>Principal (guest)</td>
<td>N/A</td>
<td>N/A</td>
<td>-</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 5-1: Participant contribution statistics

Low posting numbers are, in some cases, due to absenteeism, but in others, (P2 and P8), are due partly due to slower speed of work, lower levels of concentration or
lower writing ability. These students also received the lowest numbers of comments from their peers. It was observed that some participants (P2, P15) had a slower than average typing rate and inferior range of basic computer skills which hindered their level of input, especially during initial stages of the experience.

Reasons for the varying commenting numbers are more complex to determine. It was observed that participants who worked faster through posting and answering in each phase had more time to read their peers’ work and leave a higher than average number of comments (P5, P7, P13, P16, P17, P20, P21, P22), although P10 commented from home also. 64% of the participants wrote more comments during Task Two, which would support the increasing level of competence and comfort observed with the technology and the heightened understanding of the process as time passed.

5.1.2 Participant issues

Participants’ confidence levels increased and more independent working was noted as students became more familiar with “WE-SAW”, (“we are getting into this a bit more today!”). Nerves were an issue for some at the beginning with concerns being raised over people seeing their mistakes and the potential for ridicule was a worrying factor (“I just don’t know what to write – it’s all wrong” [tearfully]). However, these concerns only presented in the first two days of the study as participants adjusted to the set-up. This is largely attributed to the fact that children were not used to being “recorded” formally and had a huge sense of initial unease. The children needed verbal reassurance and repetition of instructions during the first few days, but this subsided considerably by the middle of the experience, as did requests for verbal feedback. Asking “Is this ok so far?”, “Will you check this Miss Lynn?” was common initially. Over time they adjusted more to receiving their feedback electronically and accepted that they would submit work as a first version rather than a finished product.

Distractions were an issue, either technical (computer problems), visual (navigating to other websites, taking considerable time searching for images), or situational (looking at their friend’s monitor, helping friends navigate the blog, chatting). However, these observations are typical of children and did not hinder the study
significantly. It was preferred that the study took place in as natural an environment as possible.

The researcher selected a sub-set of the participant blogs for detailed examination using data in *Table 5-1*. Nine blogs were selected, using probabilistic sampling (Cresswell, 2012), to find a subset which was representative i.e. “typical of the population under study” (Creswell, 2012, p.142) of all participants:

- 3 with lower than average blog content (P1, P12, P14)
- 3 with average blog content (P4, P16, P18)
- 3 with higher than average blog content (P7, P17, P20)

This subset contains user-generated data from participants of varying academic abilities and writing proficiencies.

### 5.1.3 Participant comments – quantitative analysis of comment content:

The subset’s comments were analysed for “feedback”, “goal-setting”, “thought-sharing” or “self-assessment”. Comments which contained none of these elements were categorised as “other”. The percentage breakdown is detailed in *Table 5-2*.

![Content of participant comments](image)

**Table 5-2: Comment content**

**Feedback** – if comments contained opinions or constructive information to help, guide or encourage another participant, it was included in this category.
Goal-setting - if the comment contained reference to behaviour to be learned/attempted in the future it was included in this category. Also, the comments which were left at Phase One were included as these were identifying structural and writing elements for inclusion as task assessment criteria/goals.

**Thought-sharing** – comments were included here if reflections on the tasks were explicitly evident, thoughts on the “WE-SAW” process were expressed or thoughts on other participants’ work were shared.

Self-assessment – if a comment contained a judgement on work completed by the participant, it was included in this category.
Table 5-2 shows that participants used commenting for developing self-assessment and assisted thought-sharing and feedback. The majority of the comments were used to give/receive feedback, with thought-sharing on content the next highest category. The “other” category did not display self-assessment, but included comments thanking another participant for her comment or engaging with the content of the post, and were considered important by the participants.

5.1.4 Technology supporting Self-Assessment at each phase of “WE-SAW”

Here, the data is presented to verify how the seven-phase “WE-SAW” structured blogging model assists with practising self-assessment.

**PHASE ONE:**

Here, while reading through writing examples posted by the teacher, the blog gave the participants a shared platform which supported thought-sharing as they commented on the content of each of the links. As the links were embedded in the blog, users had no problems navigating to the correct web-pages. The ease of access to these examples through the blog fostered the creation of their own learning targets:
Commenting facilitated a common space where the learners shared their thoughts and collaborated during Phase One. This involved the students in the creation of assessment criteria as advocated by Boud (1991). Commenting interactions occurred after eight of the subset’s comments in Task One, but only the teacher commented after each comment in Task Two. However, Task Two, being considerably more difficult, resulted in less time available to comment on others’ work at Phase One and as a result less interaction took place. It is expected that more practice and increased user confidence in “WE-SAW” would result in more commenting during harder tasks as time progresses.

Users remarked on how the links opened in multiple tabs on the web browser (Fig. 5-5) and how this facilitated their analysis of the two examples. They were able to click from one to the other when contrasting and comparing the two writing styles and then click back again to their blog to continue writing their observations.

Figure 5-5: Using multiple browser tabs
PHASE TWO:

Emphasis on the involvement of students in setting assessment standards for their own work is central to “WE-SAW” and this was the objective of Phase Two of the process.

The content of the goals and depth of thinking around setting goals is outside the scope of this study; it is concerned with how the technology facilitates the process. It is evident that the participants valued the support the blog afforded them at this phase. The sharing of thoughts at Phase One facilitated goal-setting in Phase Two. Participants used the content from Phase One as an aid for establishing goals as assessment criteria in Phase Two. This is an advantage of the blog observed in comparison to traditional classroom methods as usually, once a stage of teaching is complete in the classroom, the information is not accessible on a whole class level to the participant again. The only information to which they have access is their own copy notes (which are not always reliable) or verbal interaction with the teacher. When the participants were asked how they felt they were supported in setting goals, they credited the facility of being able to refer to examples as they needed to. This implies that the independent access to information on the blog that each learner has during the “WE-SAW” process supports individual and appropriate goal-setting.

In Phase Two of Task Two, planning charts for writing (which are recommended by the National Council for Curriculum and Assessment, 2007) were uploaded to participant blog spaces (See Figures 5-6 and 5-7). While it could be argued that participants may easily have used these documents in their original hard copy version while blogging, having them in the same online space as their writing supported the sharing of ideas among all the participants and reflection on the developmental process at a later date. The chronology of the posts as they appeared on their blog space helped the participants to refer to these goals and plans. Multi-way feedback was received on these charts and
was beneficial for all participants as a pre-requisite to useful self-assessment with a view to improving the standards of their work. The ability to view the writing plans allowed for more relevant feedback to be given (*See Fig. 5-8*).
Figure 5-8: Participant feedback considering another’s writing plans

The commenting feature in Phase Two was used in Task One to set goals underneath the teacher’s post, but goals were written in separate posts on the participant’s own blog in Task Two. This was an oversight in consistency by the researcher. It would have been preferable to establish goals on each participant’s page for reflective purposes; however, it did not hinder the commenting interaction and multi-way feedback between the blog users. Wherever learners wrote their goals, others engaged. Feedback did tend to relate more to how the goal was written (spelling errors, syntax, punctuation etc.) and hinting at mistakes within the post/comment. Feedback alluding to the goal itself was not prevalent and was mainly given by stronger participants.

PHASE THREE:

The technology allowed students to post to their blog page as a first attempt at writing for the task (procedural writing or report writing). Students found the preview tool\(^1\) useful at this point and they were observed using it regularly when searching for errors. Text editing tools were supportive and in particular the “red squiggly line” for misspellings was favoured.

”...on the computer the red squiggly line really helps you because then you should know how to spell it for the next time.”

It was recognised that blogging provided multiple advantages at this stage for learners and teacher alike. In posting a first attempt, process, as stressed by the literature (Andrade, 2010; Fluckiger et al., 2010; Spendlove, 2009), was emphasised and learners felt like they had a “second chance” available.

\(^1\) The preview tool allows written text to be seen in the form of a post before publishing. It gives the blogger the opportunity to see how the post will be viewed on the blog and how the text and images are formatted.
As this phase was published to each learner’s blog, it facilitated the reflective element of self-assessment. The blog allowed learners to be more aware of the process as opposed to the end product, and they were observed referring to this phase towards the end of “WE-SAW” in order to recognise improvements which had been made.

The commenting at this stage of the process was deemed very valuable by the participants as it informed and guided them towards making future improvements and assisted their completion of self-assessment at Phase Four.

**PHASE FOUR:**
This phase was the crux of the process, where participants wrote a post self-assessing their writing at Phase Three. The post was written in three colours (red writing for major errors, orange writing for lesser mistakes and green writing to indicate elements of their writing they were pleased with) and the teacher posted an example of a self-assessment post first which was often consulted. For children, colours worked well, as focus was placed on positive as well as negative assessment and they had an overall colour-coded picture of their judgement. It also supported children when engaging in critical analysis of their work as they were being asked to categorise their thoughts. Children were heard referring to these posts as “mainly green” or “just a little bit of red” which seemed to encourage them when progressing to the next phases.
In having all participants’ assessments visible, those who felt academically inferior remarked that it was encouraging to know that perfection is not instantly attainable for anyone. This is motivating and encouraging. Feedback was practised at this phase also, as learners and teacher viewed and commented on the self-assessments. There was evidence to suggest that this was helpful to some learners and they used this information in addition to their own judgements when making improvements.

Goals that were set in the previous phases were still available for referral. This meant that participants were able to self-assess with specific reference to the task’s criteria and as a result, self assessments were relevant to the task and somewhat accurate, with children of higher aptitude being more accurate. Being young children, participants were unable to identify every error in their work, but all showed the ability to identify where goals had been achieved with a high level of accuracy. The affordances of the technology supported this as the participants looked to previous posts and comments from multiple sources in order to assist them when writing their self assessment.

However, some did not use their feedback when writing their self-assessment even though they engaged with it earlier. This was more prominent in academically weaker children, which indicates they would need further support in making connections between the feedback received and their self-assessment. Of course, forgetfulness, lack of concentration and carelessness were observed as factors influencing this outcome too.
as some participants would have been expected to self-assess better. It would be expected that additional engagement with this process for these students would further solidify the connections between each phase. Overall however, this phase produced worthy self assessments which drove students to make adjustments and improvements in the next phases (See Appendices 8-11 & 8-12).

**PHASE FIVE AND SIX:**

Here, participants were observed copying and pasting the first version of their work into a new post and editing it according to their self-assessment, an affordance which the users found very useful. When editing in copy-books, children are often discouraged when trying to erase and re-write as the work becomes “messy” and “untidy”. Also, time was saved as participants did not have to write the work again but only make necessary adjustments. This made the process of improving work a simpler task as the participants were not disheartened by “having to write everything out again” as the case may be with hand written work.

The technology was however a distraction at times in this phase, with many children focusing on editing the appearance of their work and not prioritising the editing of content. Evidence shows many children changing text colour and size, experimenting with bullet points, image placement and size, and bold and italic text. Also, adding hyperlinks to external sites as a way of “adding more information” was observed, a feature which was mistakenly used as a way of expanding their work.
It can be concluded that overall, participants demonstrated the ability to make some improvements to their writing (See Appendices 8-11 and 8-12) as directed by their self-assessments. In some cases however, points made in self-assessments were not addressed in this phase. This is due partly to visual editing distractions causing children to run out of time, and partly to forgetfulness. Also, it was noted that while participants were able to identify mistakes they were unsure how to correct them, and as a result no modifications were made.

**PHASE SEVEN:**

This phase of the process required students to write a reflection on their experiences with each task. It is not evident that the technology supported this phase in isolation in any relevant way as reflections could be written by hand or by using any text editor. However, self-assessment requires learners to reflect, so it was an appropriate conclusion to the “WE-SAW” experience. Also, many of the reflections contained information which they could use going forward and insight was offered to the teacher and other readers into how they engaged with the entire process.

### 5.2 FINDINGS FROM FOCUS GROUPS AND OBSERVATIONS

This section focuses on the themes, conducive to answering the research questions, which emerged from the focus group interview data (See Fig. 5-9). The transcribed interviews were printed, manually coded (See Appendix 8-13) and then sorted into
broader themes. The data was scrutinised for information either supporting or rejecting the hypothesis that blogging technology assisted the learner with self-assessment. This data set was also consulted to investigate how the learners engaged with the technology in relation to developing their use of self-assessment. The data presented is also supported by observations noted by researcher during the implementation.

5.2.1 Practicalities:

The participants made numerous referrals to ways in which blogging technology seemed more practical and supportive of their efforts in comparison to the traditional pencil and copybook structure to which they are accustomed. They valued the editing facilities provided by the blog as a means of encouraging them to make improvements to their work and concurred that getting a “second chance” was extremely helpful.

“You know when you’re in the classroom and you make a mistake in your copy, well sometimes it gets so messy and you have to rub it out, like it could rip it you’re rubbing it out and it makes me feel like I wouldn’t like you to see it cos it’s too messy, and it makes me want to give up.”

Information, when using blogging, was accessible, clearly identifiable and searchable for the participants. Tags were used in order to search for content within the student blog pages and this appeared to help students when searching for information quickly on the blog, especially in relation to target-setting.

“Did tagging help you when setting targets?
“Yeah it did cos say if you were putting in a tag for procedure writing and if you couldn’t find something that you wanted to look back at, you could just click on it, the tag procedure writing, so you didn’t waste time looking.”

How did that help you with targets?
“Well you could look over it and just find something that you think is missing in your work; you get ideas from all the things in that tag.”
While children did not specifically realise that the reverse chronology of the posts supported their efforts on the blog, numerous instances of reflection were observed and mentioned as supportive of the self-assessment process. Participants “looked back over” their pages regularly and used information from previous posts and comments. It could be argued that the order of the posts did not necessarily affect their interpretation of the information on the blog, but it most definitely assisted the teacher in understanding the developmental processes the students engaged in while practising self-assessment. This affordance also emotionally impacted on the participants and is discussed in the next section.

Children felt their work was better organised on the blog and therefore easier to navigate while engaging with feedback and self-assessment. This is deemed as highly advantageous for the learners as illegible handwriting is not a barrier to multi-way engagement on the blog. Particularly for participants who are aware that they struggle with presentation of their work, their self-esteem was raised by this feature, and thus they could focus on judging content without being “put-off” by the appearance.

5.2.2 Emotions

Nervousness, pride, and feelings of support and safety emerged as prominent emotions experienced by the cohort when engaging with “WE-SAW”.

The cohort was anxious that “everyone in the world” was going to see their work. Being children who were publishing to the internet for the first time, the thought of limitless access to their writing was initially quite daunting and in their naivety, they were expecting a much larger audience than actually transpired. However, the nervousness motivated most students to “try harder” and to publish only their best efforts.
Participants also made comparisons between blogging and speaking out in class and found that when blogging, they had time to think and they did not have to wait to be “picked” to speak. The platform gave them a voice and they felt they were all treated equally and given an even chance to express themselves. Comparisons were made between being too nervous to speak out in front of a class to share their thoughts and having time to construct an opinion on the blog.

In publicly sharing their thoughts and work, many participants reported feelings of pride. Seeing specific examples of improvements in their work was satisfying for them.
and they enjoyed being able to “show” their friends and family at home, an occurrence they felt did not usually happen. It is evident that “WE-SAW” gave the students encouragement as their progress was observable and in seeing the developmental process, they felt their efforts were rewarded. This is important in self assessment, as learners need to feel the process is beneficial and leads to improvements and attainment of goals. Having others verify this is motivating.

“WE-SAW” also gave the children a chance to defend themselves and explain their actions. Evidence suggests that participants took chances to defend any errors and used the commenting and public nature of the blog to do this. This allowed for more engagement with the self assessment process as learners had to engage with errors and think about them to a deeper extent while protecting their pride.

Feeling supported was also a common emotion felt by the cohort. Having friends to help you was considered completely necessary in order to engage with this process. It was a source of comfort for many and participants were eager to help and be helped. Also, if children reported feeling “stuck”, they were able to browse through the blog for ideas and inspiration. This was verbalised as being very different to copy-book work. They did not feel like they were copying each other but rather the environment of the blog was one of mutual support and assistance.

The children expressed that having their posts pre-approved by the teacher before publishing to the internet helped them feel secure in sharing their thoughts and feel safe online. While it was observed that they felt vulnerable at times, they highly approved of the blog content being screened. Participants found great comfort in
knowing that the teacher/administrator would pre-approve their posts/comments and this was interpreted as an endorsement of their contributions.

### 5.2.3 Features of “WE-SAW”

Participants expressed the importance of “friendliness” and “no nasty comments”. This derived from the fact that the technology was in the **public domain** and all participants were aware that what they said to one another had to be said in a constructive and polite manner. This element of the blog supported appropriate feedback for learners; even though, at times, they reported feeling nervous and vulnerable when publishing their work to a public audience, they were secure in the knowledge that they would not be publicly ridiculed.

> “...when I made a mistake, the whole world would know about it, but nobody was mean!”

The affordance of the public domain also had an effect on reactions to comments and posts, with participants at times being overly polite and inaccurate with their feedback. This is reasonable as the participants were children; they were conscious of their public visibility and in the early stages of “WE-SAW”, were learning to give constructive feedback for the first time. This did subside, albeit slightly, towards the end of the implementation and it tended to be done by certain participants only. It is concluded that more time on the blog would dissipate frivolous commenting. However, participants said that the public audience motivated them to react to feedback.

> “I thought it would be rude not to comment back and not to do what they had said.”

Multi-way feedback was facilitated through the **commenting** feature, which encouraged and promoted self-assessment. All participants regarded the facility to comment and receive comments on the work as beneficial to successful self-assessment.

Participants accredited various advantages to feedback through commenting. Looking first to **feedback received** in this way, learners found it advantageous that
critique was received from multiple sources leading to easier identification of errors for them. They also tended to refer to feedback more on the blog as they felt they needed to be seen to acknowledge it.

Learners found the opportunity of giving feedback very rewarding as a way of enhancing their self-assessment. Feedback given by the participants developed over time and a deeper engagement with the topic on which they were giving feedback became apparent. It is deduced that the participants learned how to give appropriate feedback by observing the more knowledgeable others, in this instance, the teacher at first and then the stronger student. It would be expected that increased interaction with giving and receiving feedback would in turn enhance the recognition of the errors in participants’ own work. There were a few instances of this occurring towards the end of the implementation.

5.3 DISCUSSION AND CONCLUSION

The information in the previous sections indicates towards positive outcomes for the hypothesis that structured blogging is capable of supporting learners in acquiring and practising the skills of self-assessment.

As reported in the literature review, for optimum self-assessment to flourish there is a need to place increased responsibility on learners and encourage teachers to relinquish total control over the classroom environment (Spendlove, 2009). This was achieved with success during “WE-SAW”. Children took a more active role in their learning and engaged in the process of setting criteria, judging their own efforts and resolving identified issues to the best of their abilities. An online environment takes focus away from the teacher at the top of the class and places all participants in a physically even environment with no governing voice and no dominant physical presence. Student involvement in setting the assessment criteria for the task they are about to attempt was presented as a compulsory pre-requisite for effective self-assessment by Boud (1991) and is highly apparent during “WE-SAW” with blogging affordances central to this occurrence.

This study produced results corroborating with previous findings in the area of goal-setting which state that having specific goals improves performance (Day & Tosey,
In experiencing “WE-SAW”, the setting of goals was a collaborative and independent occurrence. Learners were focused, predominantly because thought-sharing was facilitated electronically on a public platform. Goals were specific and related to the task at hand, and those who found the skill challenging had immediate support available to them when observing their peers. It cannot be stated that the tool itself teaches appropriate goal-setting, but it is evident that it assists the learning of the skill in conjunction with other features of the blog. Phelps (2010) advised that students and teachers co-create assessment goals as this encourages learners towards goal attainment and this is supported by findings in this study. There is a definite case for the affordance of a shared platform such as blogging to facilitate this, as was seen through the use of commenting, posting and the public nature of the technology used for this experience.

Multi-way feedback was paramount to the success of the process, and was assisted by the technology in a way which would be physically impossible in a paper-based classroom. The commenting tool was used effectively by learners as a means of multi-way communication, removing the issues associated with lack of timely feedback as identified by other researchers (Andrade & Valtcheva, 2009; Fluckiger et al., 2010). Not only with “WE-SAW” was feedback timely, but the public space of the blog compelled the majority of participants to engage and react to it. The issue of teachers not providing insightful feedback is also addressed as the teacher was also acutely aware of the public domain on which she was writing.

“WE-SAW” assisted children in self-assessing in a way which made them feel supported and secure, conditions which are necessary for successful engagement by young learners. Students felt the experience was mainly positive, thus it should encourage students to engage again, as literature tells us children who find self-assessment to be rewarding and effective will re-attempt the process (Paris & Paris, 2001).

There are significant implications for a teacher administering the “WE-SAW” process with a class, as valuable insights to the learning styles of his/her students are
accessible and retainable. As Bingham et al., reported (2010), learner capabilities need to be understood, and “WE-SAW” content can enlighten educators.

While data should be interpreted with caution due to the comparatively low sample size and short implementation, these findings are very positive in affirming the hypothesis that structured blogging can assist learners with self-assessment skill acquisition. Blogging facilitates goal-setting and engagement with feedback, and evidence of improvement in work standards, albeit not dramatic, is seen.
This study was undertaken in order to investigate how the practice and acquisition of learner self-assessment skills could be supported by a structured blogging experience. Links were established in the literature review between the theories of self-assessment and the affordances of educational blogging, and strategies for teaching and acquiring self-assessment skills were explored. Following this, “WE-SAW”, a seven phase process which would lead learners through a given task while engaging with self-assessment techniques, was designed, implemented and examined.

Data collected through the blog, teacher observations and recordings, and focus group interviews was analysed in detail to verify if and how “WE-SAW” supported learner self-assessment. Focus was placed on how the technology scaffolded this phenomenon, with particular emphasis being placed on multi-way feedback and goal-setting. The user-generated data was considered highly valuable in verifying how learners used the process and gave rich insights into self-assessment as understood by learners. The focus group interviews were imperative in understanding the experience from the learners’ point of view and the researcher accessed information here that may otherwise have gone unnoticed. Emerging themes from this source are useful in understanding how children react when learning in an on-line space.

While there were some limitations to this research, the initial findings indicate that “WE-SAW” was a successful method for supporting learners when self-assessing. It is acknowledged that the implementation period was relatively short and observational data was obstructed as the researcher was also the class teacher and may have missed witnessing some important occurrences due to physical location in the computer room. However, the researcher/teacher has ten years experience observing children and as a result is confident that the overall picture was reported as accurately as possible. All qualitative research is subject to interpretation, and as Creswell points out, is interpreted relative to researcher background (Creswell, 2012). Further data in the form of screen
recordings as the participants used “WE-SAW” would have been insightful, but in this instance were not feasible.

More time for implementation would have been favourable. However, it is unrealistic to expect young children to grasp the complex skill of self-assessment; it is an on-going life-long process. Nonetheless, evidence shows that the process was understood, well practised and facilitated the learner in improving standards, setting appropriate goals for each task and engaging with multi-way feedback. It is concluded that additional use of “WE-SAW” would further solidify these findings.

Further research is recommended to explore if the skills learned through engagement with “WE-SAW” transfer to other learning environments outside of the blog. It would be interesting to investigate how learners would engage with the process if commenting was not just limited to members of the class and a true open access public forum was facilitated. The researcher recommends that implementing “WE-SAW” with older children could result in findings which would deem the process even more beneficial as a support for self-assessment. The young participants in this study found the novelty of social blogging quite distracting and this occasionally hindered the process. Perhaps older children, for whom the novelty of on-line interactions has dissipated, would use “WE-SAW” more efficiently.

In “WE-SAW”, every phase and every affordance allowed for the total process of self assessment to occur and isolation of any of these would undoubtedly hinder self-assessment skill acquisition; all phases were interdependent. Blogging technology is a suitable platform for allowing the entire “WE-SAW” process to function effectively. To answer the research question, it is concluded that self-assessment, with particular focus on goal-setting and multi-way feedback, was facilitated by “WE-SAW” and the potential for blogging to support learner self-assessment is confirmed.
7 REFERENCES


References


8 APPENDICES

8.1 INFORMED PARTICIPANT CONSENT FORM (PARENTS/GUARDIANS)

LEAD RESEARCHER(S): Denise Lynn (student), Dr. Inmaculada Arnedilo-Sánchez (supervisor)

BACKGROUND OF RESEARCH: Current research around education is concerned with how focused education systems are on exam results as opposed to developing students as life-long learners with skills of self-assessment that they can rely on for themselves when judging their work. It is hoped that education can evolve to place the most importance on the learner and skills of learning so that students can develop the skills they will need to be life-long learners and adaptable workers. This study, which I hope to do with your children, will be based around developing and using their self-assessment skills.

PROCEDURES OF THIS STUDY:
• Your child is being asked to participate in lessons in the computer room in school where she will be blogging on the internet. Blogging is where you write and post onto a webpage of your own, where others can view your posts and leave comments about the posts if they so wish. In this instance, I will be commenting on your child’s work, your daughter will be encouraged to look at her classmates work and also to comment on their work in a positive, constructive way. Posts may be in writing, a picture, an audio or video recording or a link to another website.
• The blog itself can be viewed by the general public, but only the girls in 4th Class and I will be able to comment on any individuals work. No child will be able to comment on their blog-page or anyone else’s until I approve it first. The site which the girls will be posting on is called www.kidblog.org. This is a dedicated blog-space for children.
• The children will be blogging (posting) about topics directly related to the Primary School Curriculum, the tasks and activities they will be asked to complete will be focused on developing their self-assessment skills, for example, questioning skills, thinking skills, reflection skills.
• The girls will not be posting any personal information and they will only be identifiable by their first name. They will not be posting any images of themselves or others in the class.
• The study will take place over 4-5 weeks (3-4 hours per week) and will involve classes in the computer room in school, they will be encouraged to log-on to their blog at home or after school if they wish and if it is convenient.
• All children will be taking part in the blogging classes in school, however, if consent is granted by you to allow your daughter to take part, I will be analysing and collecting their online contributions to examine them for evidence of the use of self-assessment skills. Some posts may be published in the final thesis, but they will be anonymous.
• I will be holding group interviews with the girls after the study has been completed, no child will be interviewed on a one to one basis. The questions will relate to their experience of blogging and how they felt it helped them (or not) self-assess. They will
be encouraged to be as honest as they can and I will assure them that they can say anything they wish about the experience.

- I will be audio recording the group interviews and the lessons themselves for the purpose of analysis. No one outside of this study will hear these recordings; they are only to be used for the purpose of this research.

**PUBLICATION:**
The results of this research will be published in a dissertation/thesis as part of a Masters Degree in Technology and Learning with the Department of Computer Science and Statistics at Trinity College Dublin in Dublin, Ireland.

Results *may* also be published in international publications such as Academic Journals, conferences or educational publications should the opportunity arise.

Individual data will be aggregated anonymously and research reported on aggregate data.

**DECLARATION:**
- I am 18 years or older and am competent to provide consent.
- I have read, or had read to me, a document providing information about this research and this consent form. I have had the opportunity to ask questions and all my questions have been answered to my satisfaction and understand the description of the research that is being provided to me.
- I agree that my daughter’s data is used for scientific purposes and I have no objection that her data is published in scientific publications in a way that does not reveal her identity.
- I understand that if I or my daughter makes illicit/illegal activities known, these will be reported to appropriate authorities.
- I understand that I may stop electronic recordings at any time, and that I may at any time, even subsequent to my participation have such recordings destroyed (except in situations such as above).
- I understand that, subject to the constraints above, no recordings will be replayed in any public forum or made available to any audience other than the current researchers/research team.
- I freely and voluntarily agree to be part of this research study, though without prejudice to my legal and ethical rights.
- I understand that my daughter may refuse to answer any question and that she may withdraw at any time without penalty.
- I understand that participation is fully anonymous and that no personal details about me or my daughter will be recorded.
- I understand that if I or anyone in my family has a history of epilepsy then I am proceeding at my own risk.
- I have received a copy of this agreement.

**HAVE YOU ANY QUESTIONS?**
If you are confused about any of the above information, you can contact me at school (contact information provided) or you can arrange to see me at a time that is convenient for us both and I will go through any queries you may have.
PARTICIPANT’S NAME: 
PARTICIPANT’S PARENT’S/LEGAL GUARDIAN’S NAME: 
PARTICIPANT’S PARENT’S/LEGAL GUARDIAN’S SIGNATURE: 
Date: 

Statement of investigator’s responsibility: I have explained the nature and purpose of this research study, the procedures to be undertaken and any risks that may be involved. I have offered to answer any questions and fully answered such questions. I believe that the participant understands my explanation and has freely given informed consent.

RESEARCHER’S CONTACT DETAILS: DENISE LYNN 
(01) 

INVESTIGATOR’S SIGNATURE: 
Date: 
8.2 INFORMATION SHEET FOR PARTICIPANT’S PARENTS/GUARDIANS

Current research around education is concerned with how focused education systems are on exam results as opposed to developing students as life-long learners with skills of self-assessment that they can rely on for themselves. It is hoped that education can evolve to place the most importance on the learner and skills of learning so that students can develop the skills they will need to be independent learners and adaptable workers.

You are being invited to give consent for your daughter to take part in a study based around developing and using her self-assessment skills. She will be doing this by creating her own blog. A blog is her own webpage where your child will post her thoughts, answers to activities and comment on her work and the work of others in their class. This blog will be published on the internet, but only the girls in 4th Class and I will be able to comment on this blog. You can be assured that all posts and comments will be pre-approved by me and that no girl will be identifiable through anything she writes on her blog.

I, the researcher, wish to acknowledge that the selection of the invited participants, your daughters, is opportunistic as they are her students. However, they also represent the group of people in which the researcher is interested in investigating, i.e. primary school children who are in the first stages of developing their ability to use self-assessment strategies.

The procedures relevant to your daughter, the participant, in this particular study are as follows:

- Over a period of 4-5 weeks, your daughter will be participating in a computer class where I will assist her in setting up and posting on her own blog page. These classes will be based on content of the Primary School Curriculum with a focus on activities that will require the use and development of self-assessment skills. These skills include questioning, sharing ideas, reflecting on their work critically and setting learning goals for themselves.
- Your daughter will be asked to take part in a group interview (maximum of 5 children) after the lessons are completed. She will be questioned on her experience with blogging and how she felt it helped, or did not help, with the process of self-assessment. These interviews should last no longer than half an hour; they will be structured as an informal discussion and will take place during school hours.
- The lessons and interviews will be audio recorded for the purpose of analysis for my thesis. Nobody else will hear these audio recording but me.
The researcher wishes to acknowledge the conflict of interest that arises from the fact that the invited participants are her students. Every participant can be assured of the following:

- Your participation in this study is entirely voluntary and any participant may leave the study at any time with no penalty.
- ALL data gathered will be treated in strict confidence and anonymised for publication.
- ALL data gathered will be used for the purpose of this research only and no third party will have access to any personal data of recordings.

Participation is entirely voluntary and any participant may withdraw at any time with no penalty. You are not compelled to take part due to the nature of your or your daughter’s relationship with me. Should you choose not to take part, your daughter will be still attending the classes, however none of her data will be examined and she will not be involved in the group interviews.

By taking part in this study, your child will gain extra knowledge about publishing online and how to create and manage a blog. Each child will be gaining experience with the skills of self-assessment that can strengthen their independence as learners. They will also be given opportunities to reflect on their experiences with blogging and how the process has supported the process of self-assessment for them.

After participation in the study, questions will be welcomed by the researcher. The researcher will make the anonymised information available to any participant who wishes to verify how their input was used and in what context. The final publication will be made available for anyone who wishes to read it.

This research follows the guidelines set by both Trinity College Dublin and the School of Computer Science and Statistics, including appropriate ethical approval from the latter. Any information collected as part of the study will be stored in accordance with the Data Protection Act at Trinity College. In the unlikely event that the researcher discovers illicit or illegal activities during the study, the researcher is obliged to report said events to the relevant authorities.

No audio or video recordings will be made available to anyone other than the researcher, nor will any such recordings be replayed in any public forum or presentation of the research.
The researcher states that all research will be carried out in accordance with the information above.

Once again, I wish to state that participation is entirely voluntary, but I, the researcher would be very grateful if you do give consent for your daughter to participate as it would greatly help me in my studies.

Should you have questions or concerns before, during or after the study, the researcher can be contacted at (08895928).

Thank you.
8.3  INFORMED PARTICIPANT CONSENT FORM

LEAD RESEARCHER(S): Denise Lynn (student), Dr. Inmaculada Arnedilo-Sánchez (supervisor)

WHAT I AM DOING: For my course in college I have to write a really long piece of work called a thesis. In order to write my thesis I have to do a sort of experiment and this is where you can help me out. I want to find out if I can help you learn to use self-assessment skills by setting up a blog for you. Instead of focusing on test and exams, I want to see if I can help you become better learners and help you judge your own work and try to make it better.

WHAT YOU WILL BE DOING:
- Your will be going to the computer room in school where you will be blogging on the internet. Blogging is where you write and post onto a webpage of your own, where others can view your posts and leave comments about the posts if they so wish. You will be looking at and commenting on the work of your friends also. Posts may be in writing, a picture, sound or video recording or a link to another website.
- Anyone in the world can see the blog if they want to, but only the girls in our 4th Class and I will be able to leave comments. No one will be able to post on their blog-page or anyone else’s until I see it first. The site which you will be putting your work on is called www.kidblog.org. This is a special blog-space made for children.
- You will be blogging (posting) about things that we would be doing in school normally, like English or Science, but we will be paying extra attention to helping you self-assess your work, this means asking questions, thinking about what you have done and setting goals for yourself.
- You will not be posting any personal information like your full name, age or address or pictures of yourself; you will only be using your first name.
- We will be doing these blogging classes for 4-5 weeks (3-4 hours per week) in the computer room, but you will be encouraged to log-on to your blog at home or after school if you want and if you are allowed to at home.
- These blogging classes will happen during school time, but, if you are taking part to help me with my thesis, I will be examining and collecting all the things you post on your blog to see if you were doing any self-assessment. I might want to use some of what you post or say to help me write my work but I won’t be telling anybody who said it.
- When all the blogging classes are over, I will want to speak with you in a group with some of the other girls, this will like a little group chat for about a half hour. I will be asking you questions about how you enjoyed blogging and if it helped you to self-assess your work. I will want you to be as honest as you can, even if you didn’t like something I want you to tell me. The more honest you are, the more it helps me to write my project.
- I will be be recording what you say during the interview and during the classes, this is to help me remember things you say when I am writing it down for my work, but don’t worry, again, no one will know who said it.

PUBLICATION:
When I have all my work written up, he results will be printed in a kind of a book and published in a dissertation/thesis, a big project as part of a Masters Degree in Technology
and Learning with the Department of Computer Science and Statistics at Trinity College Dublin in Dublin, Ireland.

Results may also be published in international publications such as Academic Journals like magazines with other peoples work in it), conferences(meetings) or educational publications should the chance come up.

Your names won’t appear anywhere in my work

DECLARATION:

- I have read, or had read to me, a document providing information about my teacher’s work and this consent form. I have had the chance to ask questions and all my questions have been answered and I understand what my teacher wants to do.
- I agree that my data is used for Miss Lynn’s study and I am allowing her to use what I post on my blog or what I say in the group interview. Miss Lynn will not put my name in her study.
- I understand that I may stop electronic recordings at any time, and that I may at any time, even after I agree to take part, have such recordings destroyed (except in situations like above).
- I understand that the things Miss Lynn records will not played to anyone else and Miss Lynn will only use them to help her with her work.
- I freely and voluntarily agree to be part of this project, and it won’t affect any of my rights.
- I understand that I may refuse to answer any question and that I may stop taking part at any time and no one will be upset with me.
- I understand that nobody will be able to tell who I am when they read Miss Lynn’s project and none of my personal details will be in Miss Lynn’s work.
- I have a copy of this agreement.

HAVE YOU ANY QUESTIONS?
If you are confused about any of the above information, your parents or guardians can contact me at school (6685928) or you can come to see me at a suitable time and I will try to answer your questions

PARTICIPANT’S NAME:

PARTICIPANT’S SIGNATURE:

Date:

Statement of investigator’s responsibility: I have explained the nature and purpose of this research study, the procedures to be undertaken and any risks that may be involved. I have offered to answer any questions and fully answered such questions. I believe that the participant understands my explanation and has freely given informed consent.

RESEARCHER’S CONTACT DETAILS: DENISE LYNN
(01)6685928

INVESTIGATOR’S SIGNATURE:
Date:

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8.4 INFORMATION SHEET FOR PARTICIPANTS

As you know, I am doing some extra studying in college after work. As part of this, I am going to be asking you to help me out!

I am going to try and find out if you can use self-assessment skills while I teach you how to set up and write on your own blog!

Self assessment is when you think really hard about your work and see if you can think about how you can make it better. Self-assessment is about asking questions, thinking about the work you do, looking at all the other girls work in the class and setting goals for yourself in what you are going to learn.

So what’s a blog? A blog is webpage but you create it yourself, you will be writing and posting all sorts of interesting things on it. I will ask you to do a task, to check it before you publish it, then all your friends can see it and you can all talk about your work on the blog. But before you write about anyone, I will be able to see it first, just to make sure what you’re saying is appropriate and won’t let all the people on the internet know who you are! We have to be safe on the internet! Only the girls in 4th Class and I will be writing on this blog.

So this is what you will be doing!

- Over 4-5 weeks, your will be in a computer class in the computer room where I will help you to set up and post to your own blog page. We will be posting about the same kinds of things we do in school every day, like English, Geography or History.
- When the classes are finished, you will be asked to take part in a group interview (maximum of 5 children). This is just like a chat and I will ask you some questions and you will tell me what you think, questions like “How did the blogging help you to make your work better? And “Did you like that other people were able to see your work and comment on it?” These chats will last for about 30 minutes and they will happen during school time.
- The lessons and interviews will be recorded so that I can listen back to what you said when I have to write about it in my work.

Even though you are in my class every day you need to know this:
- You don’t have to take part. You will be learning to blog, but if you can’t take part for my work, you won’t be interviewed and I won’t be talking about what you say on your blog when I write my work.
- When I am writing my work, no one will know who I am talking about, you will not be identified.
I want you to be as honest as you can when you are in the small group chats; it’s perfectly ok to say whatever you think, in fact it’s better for me if you do!

When I record you speaking, no one else, only me, will ever hear what you say!

So, you don’t have to take part, there will be no questions if you don’t! But if you do it would really help me with my work and I would be very grateful.

If you have any question, please come and ask me at any time!

Thank you.
8.5 INFORMED BOARD OF MANAGEMENT CONSENT FORM

LEAD RESEARCHER(S): Denise Lynn (student), Dr. Inmaculada Arnedilo-Sánchez (supervisor)

BACKGROUND OF RESEARCH: Current research around education is concerned with how focused education systems are on exam results as opposed to developing students as life-long learners with skills of self-assessment that they can rely on for themselves when judging their work. It is hoped that education can evolve to place the most importance on the learner and skills of learning so that students can develop the skills they will need to be life-long learners and adaptable workers. This study, which I hope to do with children in 4th class, will be based around developing and using their self-assessment skills.

PROCEDURES OF THIS STUDY:
- Each child is being asked to participate in lessons in the computer room in school where she will be blogging on the internet. Blogging is where you write and post onto a webpage of your own, where others can view your posts and leave comments about the posts if they so wish. In this instance, each girl will be encouraged to look at her classmates work and also to comment on the work in a positive, constructive way. Posts may be in writing, a picture, an audio or video recording or a link to another website.
- The blog itself can be viewed by the general public, but only the girls in 4th Class and I will be able to comment on any individuals work. No child will be able to post on their blog-page or anyone else’s until I approve it first. The site which the girls will be posting on is called www.kidblog.org. This is a dedicated blog-space for children.
- The girls will be blogging (posting) about topics directly related to the Primary School Curriculum, the tasks and activities they will be asked to complete will be focused on developing their self-assessment skills, for example, questioning skills, thinking skills, reflection skills.
- The girls will not be posting any personal information and they will only be identifiable by their first name. They will not be posting any images of themselves or others in the class.
- The study will take place over 4-5 weeks (3-4 hours per week) and will involve classes in the computer room in school.
- I will be holding group interviews with the girls after the study has been completed, no child will be interviewed on a one to one basis. The questions will relate to their experience of blogging and how they felt it helped them (or not) self-assess. They will be encouraged to be as honest as they can and I will assure them that they can say anything they wish about the experience.
- I will be audio recording the group interviews and the lessons themselves for the purpose of analysis. No one outside of this study will hear these recordings; they are only to be used for the purpose of this research.
Publication:
The results of this research will be published in a dissertation/thesis as part of a Masters Degree in Technology and Learning with the Department of Computer Science and Statistics at Trinity College Dublin in Dublin, Ireland.

Results may also be published in international publications such as Academic Journals, conferences or educational publications should the opportunity arise.

Individual data will be aggregated anonymously and research reported on aggregate data.

Declaration:

- I am 18 years or older and am competent to provide consent.
- I have read, or had read to me, a document providing information about this research and this consent form. I have had the opportunity to ask questions and all my questions have been answered to my satisfaction and understand the description of the research that is being provided to me.
- I agree that the child’s data is used for scientific purposes and I have no objection that her data is published in scientific publications in a way that does not reveal her identity.
- I understand that, subject to the constraints above, no recordings will be replayed in any public forum or made available to any audience other than the current researchers/research team.
- I freely and voluntarily agree to allow St. Patrick’s GNS, Ringsend and the girls of 4th class in same school to be part of this research study, though without prejudice to my legal and ethical rights.
- I understand that each child may refuse to answer any question and that she may withdraw at any time without penalty.
- I understand that participation is fully anonymous.
- I have received a copy of this agreement.

Have you any questions?
If you are confused about any of the above information, you can contact me at school [redacted] or on [redacted] and I will do my best to satisfy any queries.

Name (representative from the Board of Management):

Signature:

Date:

Statement of investigator’s responsibility: I have explained the nature and purpose of this research study, the procedures to be undertaken and any risks that may be involved. I have offered to answer any questions and fully answered such questions. I believe that the participant understands my explanation and has freely given informed consent.

Researcher’s contact details: Denise Lynn

Investigator’s signature:

Date

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8.6 INFORMATION SHEET FOR BOARD OF MANAGEMENT

Current research around education is concerned with how focused education systems are on exam results as opposed to developing students as life-long learners with skills of self-assessment that they can rely on for themselves. It is hoped that education can evolve to place the most importance on the learner and skills of learning so that students can develop the skills they will need to be independent learners and adaptable workers.

You, the Board of Management, are being invited to give consent for 4th Class in St. Patrick’s GNS, Ringsend, to take part in a study based around developing and using self-assessment skills. They will be doing this by creating their own blog. A blog is a webpage where each child will post her thoughts, answers to activities and comment on her work and the work of others in their class. This blog will be published on the internet, but only the girls in 4th Class and I will be able to comment on this blog. You can be assured that all posts and comments will be pre-approved by me and that no girl will be identifiable through anything she writes on her blog.

I, the researcher, wish to acknowledge that the selection of invited participants is opportunistic as they are my students. However, they also represent the group of people in which I am interested in investigating, i.e. primary school children who are in the first stages of developing their ability to use self-assessment strategies.

The procedures relevant to each child, the participant, in this particular study are as follows:

- Over a period of 4-5 weeks, each child will be participating in a computer class where I will assist her in setting up and posting on her own blog page. These classes will be based on content of the Primary School Curriculum with a focus on activities that will require the use and development of self-assessment skills. These skills include questioning, sharing ideas, reflecting on their work critically and setting learning goals for themselves.
- Each child will be asked to take part in a group interview (maximum of 5 children) after the lessons are completed. She will be questioned on her experience with blogging and how she felt it helped, or did not help, with the process of self-assessment. These interviews should last no longer than half an hour; they will be structured as an informal discussion and will take place during school hours.
- The lessons and interviews will be audio recorded for the purpose of analysis for my thesis. Nobody else will hear these audio recording but me.
The researcher wishes to acknowledge the conflict of interest that arises from the fact that the invited participants are her students. Every participant can be assured of the following:

- Your participation in this study is entirely voluntary and any participant may leave the study at any time with no penalty.
- ALL data gathered will be treated in strict confidence and anonymised for publication.
- ALL data gathered will be used for the purpose of this research only and no third party will have access to any personal data of recordings.

Participation is entirely voluntary and any participant may withdraw at any time with no penalty. No child is compelled to take part due to the nature of the parent or student relationship with me. Should any child choose not to take part, she will be still attending the classes, however none of her data will be examined and she will not be involved in the group interviews.

By taking part in this study, each child will gain extra knowledge about publishing online and how to create and manage a blog. Each child will be gaining experience with the skills of self-assessment that can strengthen their independence as learners. They will also be given opportunities to reflect on their experiences with blogging and how the process has supported the process of self-assessment for them.

After participation in the study, questions will be welcomed by the researcher. The researcher will make the anonymised information available to any participant who wishes to verify how their input was used and in what context. The final publication will be made available for anyone who wishes to read it.

This research follows the guidelines set by both Trinity College Dublin and the School of Computer Science and Statistics, including appropriate ethical approval from the latter. Any information collected as part of the study will be stored in accordance with the Data Protection Act at Trinity College. In the unlikely event that the researcher discovers illicit or illegal activities during the study, the researcher is obliged to report said events to the relevant authorities.

No audio recordings will be made available to anyone other than the researcher, nor will any such recordings be replayed in any public forum or presentation of the research.

The researcher states that all research will be carried out in accordance with the information above.
Once again, I wish to state that participation is entirely voluntary, but I, the researcher would be very grateful if you do give consent for 4\textsuperscript{th} class to participate as it would greatly help me in my studies.

Should you have questions or concerns before, during or after the study, the researcher can be contacted at (\text{redacted}) or lynnde@tcd.ie

Thank you
8.7 EMAIL CONFIRMING ETHICAL APPROVAL

Email received from the Research Ethics Committee granting permission to proceed with this study.
8.8 INTERVIEW PROTOCOL

DATE ____________________________

INTERVIEWEES ____________________________________________________________

TIME ____________________________

The intention of this discussion group is to ask you about your experiences when blogging and to ask you about how you think it helped you with learning about self-assessment.

This discussion should take about a half hour and I want you all to be as honest as you can and try to answer every question as best you can. This discussion is being recorded.

SELF ASSESSMENT SKILLS

- Can you tell me what you learned about self-assessment by doing the tasks on the blog?
- Are you good at self-assessing your work? How do you know?
- What parts of the tasks helped you with judging whether your work was good or not? (SHOW PROMPT CARDS AS BELOW)
  - Phase 1 – looking at the examples online of the writing
  - Phase 2 – putting together the list of what targets you should be aiming for/planning your writing with KWL charts and mind maps
  - Phase 3 – trying the writing for yourself the first time
  - Phase 4 – writing up your coloured self assessment
  - Phase 5 – changing and editing the post and trying it again
  - Phase 6 – publishing the final version of your writing
- What phase in the tasks helped you most with self assessing your work? Why?

FEEDBACK

- Did you like that other people were able to see your work and leave comments about it? How did it make you feel?
- Did it help that you could look at everyone else’s work also? Why?
- Did other girl’s comments help you to improve what you posted? How?
- How important were the comments I posted to you on your blog page?
- What part of the blog technology do you think worked best for feedback?
  - Commenting?
  - Public audience?
  - Internet? – Available outside of school?
Appendices

- If you couldn’t comment and see each other’s work, do you think you still be able to self-assess your own work?
- When you get feedback on the blog, do you take more notice of that feedback or the feedback in your copy? Why?
- What made you want to comment on other peoples work and give them feedback?
- Is getting feedback from your friends as good as or better than getting feedback from just your teacher? Why?
- Does giving your friend feedback help you with making your own work better?

GOALS

- How did you set your writing goals for each task? Did you use any parts of the blog to help you with that?
- Did any of the following parts of the blog help you when setting a writing target?
  - Reverse order of the posts
  - The fact that everyone could see your work
  - Commenting
  - Being able to edit and re-edit your work
  - The fact that the blog was belonging to you, it was personal and you had your own blog page
  - The way you could have tags and categories and search your work using these
- When we set the writing targets as a class, do you think being on a blog on the internet made that easy for you? How?
- Knowing that your blog could be seen by anyone, did that push you to achieve your targets?
- Do you think having a blog made it easier for you to improve on your work and set goals for yourself? How?

THE TASKS ON THE BLOG

- Did you find it easy or hard to reflect on your own work? What about when you were commenting on other peoples work, was that easy or hard? Is it easier to reflect on your work on a blog or in the classroom? Why?

BLOGGING AND THE FEATURES

- How useful was it for your work to be in one place that you could look at anywhere, even if you were at home?
- What do you think is better or worse about using the blog as opposed to using your copies in the classroom when trying to do self-assessment?
• Would you like if the blog was opened up so that anyone could comment on your work, not just your class? Why / Why not?

FEELINGS ABOUT THE TEL

• How do you think blogging and self-assessing helped you with your learning in school? Do you think you can use what you learned in the blogging classes in your other work in class?
• Would you like to continue doing self assessment this way?
• Did you find any part of blogging hard – did you think it was easy to learn how to blog and use the computer for blogging?
• How could you make the experience of blogging for self assessment better for you?

SUPPORT FROM THE TEACHER

• Did you find it easy or hard to know what I wanted you to do in each task and in each phase? Why? Did you feel you still needed to be able to talk to me while you were blogging or were you able to get on with it yourself?
• Do you think you could do all we did on our blog page if I wasn’t there in the computer room and you were left to do it on your own?
The study took place in a dedicated computer room in the researcher’s workplace and in the participants’ school. This was a convenient location as the researcher was also the class teacher of the participants.
8.10 EXAMPLE OF TWO PERSONALISED STUDENT BLOG INTERFACES

These screen shots are taken from two user interfaces.

The blog in its entirety is available at [http://www.kidblog.org/MissLynnsClass-2](http://www.kidblog.org/MissLynnsClass-2)
8.11 SAMPLE PAGE OF OBSERVATIONAL NOTES

Day 9 - Observations: 'WE-SAW'

21st February 11:05 am - 12:00 pm
Attendance: 22/22

Internet crashed, delay in starting; multiple computer issues. 2 children sharing (1slow) while tech support resolved issue - no distracting/inaconvenient.

Environment:
- Children noticeably more comfortable; heightened independence, fewer q's asked of me, quieter environment, me too doubting themselves still (technology confusion - classification needed).

- Slower than expected pace (through Task A); But stronger children continue to show/so well/work hard.

Tech. supported:
- Initiative used - Google for spellings, Tabs, noting their own issues with support of internet searches.

Thought: 'Intercepted by visitor - asked about what we were doing - visitor from DISC; interested in technology in schools. 10 minutes of talking with children.'

- "Mrs Hymn - can I use this?" (referring to online dictionary)
- "Mrs Hymn - I'm stuck" (child) "Just click this!" (other child)

"Can I put a picture in my self assessment" distracted by the capabilities of the technology, interested in. Noting writing visually appealing.

- Computers are cool - noticeably, children find writing/changes/editing vs. typewriting - could be a novelty - high mistakes seen but high awareness so easily changed.

A want to share is noticed - checking & often termed, 'Check out what I just posted'

- My spelling is getting better - Spelling Ly line.

- Awareness of internet safety: rules & the need to be...
Appendices

8.12 SAMPLE OF TRANSCRIBED INTERVIEW DATA ANALYSED FOR CODES AND THEMES

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8.13 EXAMPLE A: ANALYSIS OF IMPROVEMENTS (PHASE 3 - PHASE 6)

The participant recognised missing capitalisation/full stop and specificity of her language, then referenced it in her self-assessment and amended it in the subsequent post.

When copying/pasting from phase 3 to phase 6, the participant neglected to copy all the text and this resulted mistakes in the second version that were not present on the first.

Unnecessary visual editing evident, change of text colour, image alteration, focus misplaced here when should have been on content.
Appendices

8.14 EXAMPLE B: ANALYSIS OF IMPROVEMENTS (PHASE 3 - PHASE 6)

The participant recognised missing capitalisation, lack of information and the need for organisational improvements in her self-assessment, and amended some in Phase 6.

Phase 3

Phase 4

Phase 6

When making amendments, evidence of exploration of formatting tools is seen.

It is observed that improvements were made that were not mentioned in the self-assessment but later observed by the participant.