

E Portfolios In A Primary School Setting

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Executive Summary

As we move into the 21st century and ICT becomes an integral part of teaching and learning we also need to see how it can become an integral part of assessment and reporting functions in a school.

This movement towards student managed portfolios aligns with the goal we have for our 21st century learners; to become self monitoring learners who are aware of next learning steps.

This research will feed directly into current practise within my own school with the purpose of improving and refining systems being trialled at present. Schools involved in the study will also benefit from the opportunity to view examples of other portfolio designs and discuss pros and cons of various designs.

This project also links closely to current goals within our schools Strategic Plan which identifies the need to review current assessment information gathered in the school and assessment practices in how this information is gathered and stored.

Purpose

Through visits and surveys with teachers and students and parents, I want to gather information on the following categories in relation to the creation and use of e portfolios in a primary school setting:

- engagement levels of students in the process
- usefulness of the information recorded as judged by teachers and parents
- value of information shared with parents and how the information is made available to parents
- how this information is linked to other information collected by teachers
- how the e portfolio links to other forms of reporting within the school
- how work is selected and critiqued by teachers and students
- samples of models being used

Rationale and Background

“... most importantly, where schools are genuinely committed to the development of ‘confident, connected, actively involved life-long learners’ (MoE 2007), an ePortfolio is likely to be an integral part of the journey towards that goal. It will assist with the development of key competency skills and provide evidence of a student’s growing development in a range of curriculum areas. It will assist teachers to personalise learning and better prepare students with the skills required to thrive in this knowledge age. It will engage students in their learning and show that schooling can be relevant to their 21st century lives.”

Ian Fox MOE article

As many schools have in recent years, our school underwent a move away from traditional teaching methods towards a student driven model of education using an inquiry model as our basis for learning. During this time we also incorporated aspects of Edward deBonos’ Six Thinking Hats, Gwen Gawith’s Action Learning Model, and Bloom’s Taxonomy of Learning as well as other ‘thinking tools’. Over time the school has modified and altered our approach but one key aspect of this process has been developing student’s awareness of their learning and their ability to reflect upon that learning. A key element in this progression has been the implementation of ‘student lead conferences’ as part of our reporting to parents cycle. This lead us to develop a school based e portfolio which we have been using with our year 5-8 students for 3 years.

With the advent of the Revised Curriculum and more recently the National Standards e portfolios are finding a place in New Zealand

schools as an effective way to record, reflect and share student achievement over time.

What Is An E Portfolio?

“An e-portfolio is an electronic format for learners to record their work, their achievements and their goals, to reflect on their learning, and to share and be supported in this. It enables learners to represent the information in different formats and to take the information with them as they move between institutions.”

(Banks, 2004. p.3)

or

“An electronic portfolio uses technologies as the container, allowing students/teachers to collect and organise artefacts in many media types, (audio, video, graphic, text); and using hypertext links to organise the material, connecting evidence to appropriate outcomes, goals or standards.”

(Barrett, 2005. P.5.)

The definitions of e portfolios vary however there are some key elements that appear to be common to many of them. These are:

- They are stored in an electronic environment whether it be CD, DVD or some online environment such as Mahara.
- It will contain artefacts of work which may include video, voice recordings, scanned samples of work etc.
- Evidence of learning should be against some clearly stated objectives and show progress towards those goals.
- Students will reflect on their learning and include comments about why particular artefacts have been selected and the relevance they have to that particular learning journey.
- There will be opportunities for students to share their portfolios with other students, teachers and parents.
- Portfolios will include feedback from others about the learning.

Why Have An E Portfolio?

There are many valid reasons for using e portfolios as a method of recording and reporting student achievement. It is however very important that there is a clear purpose.

In Ian Fox's 2008 report "E Portfolios- "A Personal Space For Learning" he lists some possible reasons for choosing e portfolios as a mechanism for storing students work/learning.

- *provide assessment information linked to curriculum objectives showing evidence of progress.*
- *show student growth over time so a picture can be built up of overall ability and progress.*
- *show what a student can do, rather than focusing on what can't be done.*
- *focus on process rather than simply a finished product.*
- *become a vehicle for empowering students to take increasing responsibility for their own learning.*
- *better provide for a range of differing learning styles.*
- *provide a broad overview of a student's achievements over time rather than simply a snapshot from a particular period.*
- *show that development, and not simply achievement, is important.*
- *focus on authentic assessment thus providing opportunities for students that are closer to their real life experiences.*
- *assist with the development of student self esteem through providing a vehicle for them to display work of which they are proud.*
- *provide a forum for student goal setting, self-assessment and reflection.*
- *be used to assist with the process of reporting progress to parents.*
- *provide a wider audience with greater accessibility to student work where the e Portfolio is web-based.*
- *encourage quality high standard work through the knowledge that it will have a wide audience.*
- *Show that the technologies now available are simply tools that can be used to support learning rather than then being an end in themselves.*

This list indicates that there is no one correct purpose or set of purposes for keeping an e Portfolio. Each school and each teacher will need to determine exactly how an e Portfolio is to be used and what its key purpose is to be. The e Portfolio may in fact be used to meet a number of differing purposes.

Methodology

In term 3 I contacted all Otago and Southland Schools seeking contact from those schools that were currently using a form of e portfolio. I received replies from approximately 30 schools of whom four were currently using an e portfolio within their schools.

I also received information about colleagues in Canterbury schools who were using e portfolios.

I arranged visits to each of the four Otago/ Southland schools while I emailed a copy of a survey I had prepared to the Canterbury schools.

During this time I have also researched a number of online articles and video clips available on the theory and practice of using e portfolios in a school setting. These articles have helped form the theoretical basis of this report.

Findings

School 1

School 1 is a small rural school in Central Otago with 40 pupils ranging from year 1 to year 8.

The school is in its third year of using e portfolios and is at present using power point as its electronic environment. Students in years 5 and 6 develop their portfolios while year 7 and 8 students are away once a fortnight attending technology classes in a nearby main centre. This allows the teacher to work closely with a small group of students providing plenty of hands on support as students develop confidence in managing the online environment and technical aspects of loading data, video and sound into their e portfolio. The Year 7/8 students then have two years where they can self manage their portfolio in a less teacher managed way with the skill needed to do so.

The portfolio links closely to other forms of reporting in the school. The initial teacher lead interview in term 1 is an opportunity for student, teacher and parent to set learning goals for the year based on the data that is collected and presented by the teacher at this interview. These goals are then transferred into the e portfolio and evidence is gathered around these goals during the year to provide a picture of how the student is progressing towards achieving these goals. The student also has to reflect on their learning and achievement against these goals.

In term two the school holds student lead interviews for the year 5 to 8 students where students share their portfolios with their parents or caregivers. The teachers roll in these interviews is to support students and ask question to elicit further information from to student to provide clear explanations to the parents.

In term 3 a full written report is completed by the teacher and in term 4 a copy of the e portfolio is sent home to families on a disk.

The layout of the portfolio is decided by the teacher however students make selections and have control around work samples used as evidence of learning, reflective comments and overall judgement of content (i.e. photos, video evidence etc).

The students are highly engaged in all aspects of the process and enjoy opportunities to share their portfolios with other staff and students.

Teachers have also maintained a paper cumulative folder which houses standardised testing material such as asttle, PAT, STAR as well as formative assessments such as GAP analysis spelling tests, NUMPA summaries, I KAN etc.

The school is considering moving to a web based online environment in the future as storage space on the school server over time has become an

issue. Concerns around going web based for the teacher include the access students would have outside of the school environment to make uninformed changes and accidental deletion of material; however she feels that the pros of family access and students having the ability to manage their portfolios from home may well outweigh these concerns.

School 2

School 2 is an isolated rural school in Central Otago with 12 pupils ranging from year 1 to year 8.

The school is in its fourth year of using an e portfolio and at present is using power point as its electronic environment. All students create an e portfolio and support is given by the teacher and other students in managing the technology.

Goal setting is an integral component of this school's portfolios and these goals link to the school's strategic plan. Students reflect on their achievement against these goals in their portfolio selecting evidence to link to their reflections. These goals are reported against to parents via the e portfolio. The BOT is also reported to against these goals via the annual plan.

The format of the portfolio is decided by the teacher with students often choosing the content. The teacher will assist or suggest where she feels evidence is lacking.

The teacher finds students are fully engaged throughout the process developing high levels of self managing behaviours.

The evidence selected often serves multiple purposes and parents feel they gain a real understanding at the diversity and complexity of their child's learning.

Parents are provided with opportunities to view the portfolio during the year and are provided with a CD at the end of each year with a copy of the portfolio on it. The portfolio also includes a copy of the "written report" which is constructed by student and teacher together.

The teacher continues to collect and store other data (e.g. Probe, Asttle etc) that provide evidence to back up report comments.

Issues for this school have been and are around the regularity with which they work on their portfolios. At present evidence is selected and filed during the year with the portfolio being created some time in the later part of the year.

The school is keen to move to web based storage as they have technical issues around incompatible programmes and hyperlinks and video not working consistently.

The school is also considering how to incorporate the national standards into their current model while ensuring students maintain responsibility for their learning and the evaluation of that learning.

School 3

School 3 is a remote rural school in Southland with 22 pupils ranging from year 1 to year 8.

The school is in its second year of using an e portfolio and at present is using power point as its electronic environment. All students create an e portfolio and are in small family groups so that support can be given by the teacher and other students in managing the technology.

The school uses a regular time slot each fortnight where children have 1 ½ hours to complete specific tasks modelled and supported by the teacher. All entries in the portfolio are dated giving a clear picture of the development of learning over time.

A key aspect of the portfolios in this school is the process of self reflection and the setting of next steps by the students in discussion with the teacher.

The teacher says all students are completely engaged in all aspects of the process from selecting evidence, managing and adding samples and reflections as well as sharing their portfolios with others.

Twice a year students share their portfolios with their families and parents are asked to type a written comment into the portfolio about the child's learning. This part of the process is not managed in any way by the teacher and parent reflections were insightful, thoughtful and relevant to their child's learning. A copy of the portfolio is provided to families at the end of term 4.

No other assessment data is kept separately by the teacher. Asstle and Probe, are all scanned and loaded into the portfolio while aspects of Numeracy testing such as Numpa interviews are videoed and loaded. The e portfolio in this school has replaced all other previous forms of reporting including the 'teacher written' report. The students do however all participate in a goal setting interview in term 1 which links directly to that year's portfolio. Senior students set 2 or 3 goals for the year and part of the reflection process is to include a photograph of what it will look like when the student has achieved that goal.

The teacher provides "*quite strict guidelines about what they can include and how its done.*" As lessons are given on aspects of managing the technology (taking photos, scanning, adding images etc) the teacher has created a big book with written instructions which students can refer back to if need be. She has also published clear guidelines in the schools Curriculum Documentation of the way e portfolios are managed within the school.

The e portfolio also provides for parents a graphic interpretation of where their child is at in relation to the national standard. This aspect of each portfolio is managed by the teacher.

The school is keen to move to web based storage in the future to provide students and parents with access outside of school and to avoid a heavy load on their school server.

School 4

School 4 is a large semi urban school with 330 pupils ranging from year 1 to 6.

At present student data is recorded in two places; an individual cumulative paper file which is completely administered by the teacher and on a Musac student management system where data is entered by teachers and reports generated are for reporting to groups within the school.

The school has no formal individual e portfolio at present; however they are producing class portfolios using power point to record particular units of work or learning journeys. These portfolios are used to report to parents via assemblies on a variety of topics such as an inquiry unit around developing some new and fun playground games which a junior class had recently done.

The school were not aware that this constituted an e portfolio because, as well as recording what they had done, the students had, as a group, reflected on their learning and the success of the final outcomes. The Principal and I discussed some other elements that could be added to these group e portfolios such as teacher and parent reflection which would enhance the quality of the portfolios and further assist in meeting the elements required to develop e portfolios.

The Principal was keen to learn more about individual e portfolios and she viewed a sample I had as well as discussed possible ways to manage initiating e portfolios in a larger school. This included having a trial group of students with whom a staff member could work on a regular basis, allowing classes the choice of opting into e portfolios and forgoing the paper portfolio in current use or selecting classes to be part of a trial project.

The school was keen to trial one of these formats in 2011.

School 5

School 5 is a rural school in Central Otago with 38 pupils ranging from year 1 to year 8.

The school is in its first year of using an e portfolio and at present is using Knowledge Net as its electronic environment. Year 5 to 8 pupils have begun by making entries focusing on reading skills and achievement. The Principal/class teacher decided on the content of the e portfolio and at present the students are given time once a fortnight to update their portfolio, however the teacher is keen to move quickly to a point where students make time and choices within their reading programme, to make entries when and where appropriate. As students become confident in using the online environment it is the intention of the teacher to add in other core subjects to the e portfolio as well as add in a variety of types of artefacts including scanned work, video and photo evidence as well as sound bites.

A key aspect of this school's e portfolio is the link between the goal setting shared with parents via the written reporting and 3 way conferences, and the reflection against these goals by the students, teacher and peers within the online environment. The beauty of Knowledge Net is the ability to control who has access to other student's pages. At this stage the access is set up so that students can comment on other student's reflections if they are in the same reading groups. The school intends to run a parent education evening to assist parents in the mechanics of making entries on their child's e portfolio in the near future.

The teacher says that the entire process has been highly engaging for all students and believes the self managing nature of e portfolios means the students have far greater buy in to the whole process.

The e portfolio will use, and record through artefacts, all assessment data currently collected for the assessment of achievement in reading (Probe, STAR, PAT, Teacher observation in guided reading lessons and reading aloud) and it is intended as subjects are added to the portfolio so will data related to that area.

Knowledge Net is an online environment that schools can purchase (it cost this U1 school approximately \$800 a year). The school Principal has a clear plan of introduction i.e. subject by subject, parent education, teaching use of video equipment to relax student's performance when the camera is on, and finally introduction to junior classes with support from senior pupils.

Commonalities Among Schools

It is evident in schools where e Portfolios are becoming well established a strong link exists between the e Portfolio and the school's pedagogical beliefs. Where schools have a clear understanding of purpose and have integrated the e Portfolio into the learning process, there is a much greater likelihood the implementation will be successful.

Where innovative programmes exist most are dependent on enthusiastic teachers with the knowledge and ability to provide structures for e Portfolio development. In general these are in use within a small sector of the school. Very few have strong practices school wide. Barriers to progress are quite significant with tools currently available, hence the reluctance for many to move forward to a whole-school approach.

*(ePortfolios – Celebrating Learning
New Zealand Ministry of Education 2009)*

The above findings from the article “E portfolios – Celebrating Learning” Commissioned by the New Zealand Ministry of Education, are replicated in my study. The work being done in a few New Zealand schools around e portfolios is ground breaking. All schools I meet with are working creatively and intuitively with little or no awareness of the research that has been done in this area. They all had a strong belief that allowing students greater control and management of their learning and assessment engages students and makes the collection of artefacts as examples of ongoing achievement a more purposeful process. All schools also had a strong belief that student goal setting and student reflection was a powerful and important tool in supporting student’s in their awareness of their current and future learning needs.

Interestingly most of the schools I visited were small schools and it may be that the introduction of e portfolios is seen as difficult when it relies on all staff having an understanding of, and an ability to, manage an IT environment which they may not feel confident about doing. Other barriers may include concerns about the quality of assessment processes over a large number of classes as well as the quality and stability of IT environments within schools.

The key feature in all schools I visited was that there was a teacher, in most cases the Principal, who was driving the development of e portfolios in their school and was committed and passionate about this method of recording and reporting student achievement, seeing it as being a purposeful and engaging process for students.

Conclusions and Considerations

The potential for e-portfolios to support learning derives from the many processes that they enable, including:

- *recording and storing evidence and resources for learning*
- *reflecting on particular items or on a bank of evidence created over time*
- *giving and receiving feedback*
- *collaborating with others*
- *selecting evidence for presentation*

- *communicating learning outcomes and personal identities to a range of audiences.*

While engaging in these processes, learners develop many skills that will support their lifelong learning, as well as building up a repository that reflects their personal history.

This activity has the potential to motivate learners and increase their confidence and self-esteem, particularly where it suits their purposes and meets their needs.

Well-designed e-portfolio systems have the potential to support high-stakes assessment as well as creativity and self-expression, depending on the requirements of learners and institutions at particular times. However, audiences will need help to prepare themselves to receive and assess material presented in a range of multimedia formats.

An e portfolio is a powerful tool which can motivate and engage students. It allows students to work creatively and innovatively, teaching students to make relevant evidence selections and use higher level thinking skills to assess and justify their selections. It is an influential tool in teaching children to reflect on their own learning and set future learning goals.

Through the sharing of quality work with feedback from a variety of sources students gain pride in their efforts and can see evidence of their achievements over a period of time.

Mostly however the e portfolio can assist students understand that learning is something they do, it is not something that teachers do to them. They can become empowered to take a greater degree of control over their own learning and move further along the path towards being truly confident, connected, actively involved, life-long learners. (Fox, I. (2008) e Portfolios, A Personal Space for Learning).

I believe e portfolios are the future of assessment in New Zealand Schools offering schools and educators a way of meeting assessment and reporting needs in a school in a way that involves and develops the learners awareness of their own learning strengths and needs.

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