

## Electronic Portfolios for Developing Reflective Practice in Educational Leaders

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### Abstract

The aim of this paper was to investigate how an electronic portfolio could promote reflective practice, professionalism and accountability in educational leaders in West Australian schools. Participants were trained in the navigation of a portfolio software application engineered by the author, then provided with skills in the various technical aspects required to use it effectively. The software was designed to encourage self analysis through reflective practice using the Wildy and Louden (2002) Leadership framework as the conceptual model for the study. Eighteen key qualities and attributes were identified by the group as crucial concerns of their leadership approach; values, the quality of the relationship they had with their staff, the school as a physical and cultural entity, curriculum, communication, students, parents and community, pedagogy, leadership, management process and policy as well as the resourcing of ICT infrastructure were important concerns. Change and change management permeated thinking. The findings also suggested a general perception by participants, that a positive attitude in the discharge of leadership responsibilities as educational leaders was a very important attribute which fostered an ability to create a collaborative and cooperative environment in which things could get done. The study has demonstrated that a carefully constructed portfolio based on a solid conceptual model can promote reflective practice which can develop critical consciousness and perspective transformation in school leaders.

**Key Words** Electronic Portfolios, Educational Leadership, Reflective Practice

### 1. Introduction

The aim of this study was to set about using a contemporary ICT approach to promote reflective practice and demonstrate professionalism and accountability by creating an electronic portfolio suited to educational leaders in West Australian schools. Participants were trained in the navigation of a portfolio software application engineered by the author, then provided with skills in the various technical aspects required to use it effectively. Regular meetings throughout the year followed with the project group to record their progress and to motivate them to develop their work. The software was designed to encourage self analysis through reflective practice using the Wildy and Louden (2002) Leadership Framework as the conceptual model for the study (see Figure 1). The research set out to describe an effective electronic portfolio designed to promote professionalism, accountability and reflective practice, to outline its architecture and technical features and to carefully follow people as they worked on their personal growth as leaders through its use.

The research also attempted to interrogate the Wildy and Louden leadership framework for its suitability as a conceptual model for such a portfolio and to ascertain whether or not participants could effectively write narratives and provide artefacts which demonstrated professionalism and accountability in line with the characteristics and competencies of educational leadership described by Wildy and Louden (2002). The study also took a snapshot of the thinking of modern educational leaders - their priorities and the actions they were taking in the discharge of their responsibilities

within the context of the upheaval and enormous change in schools mandated at both the national and local level.

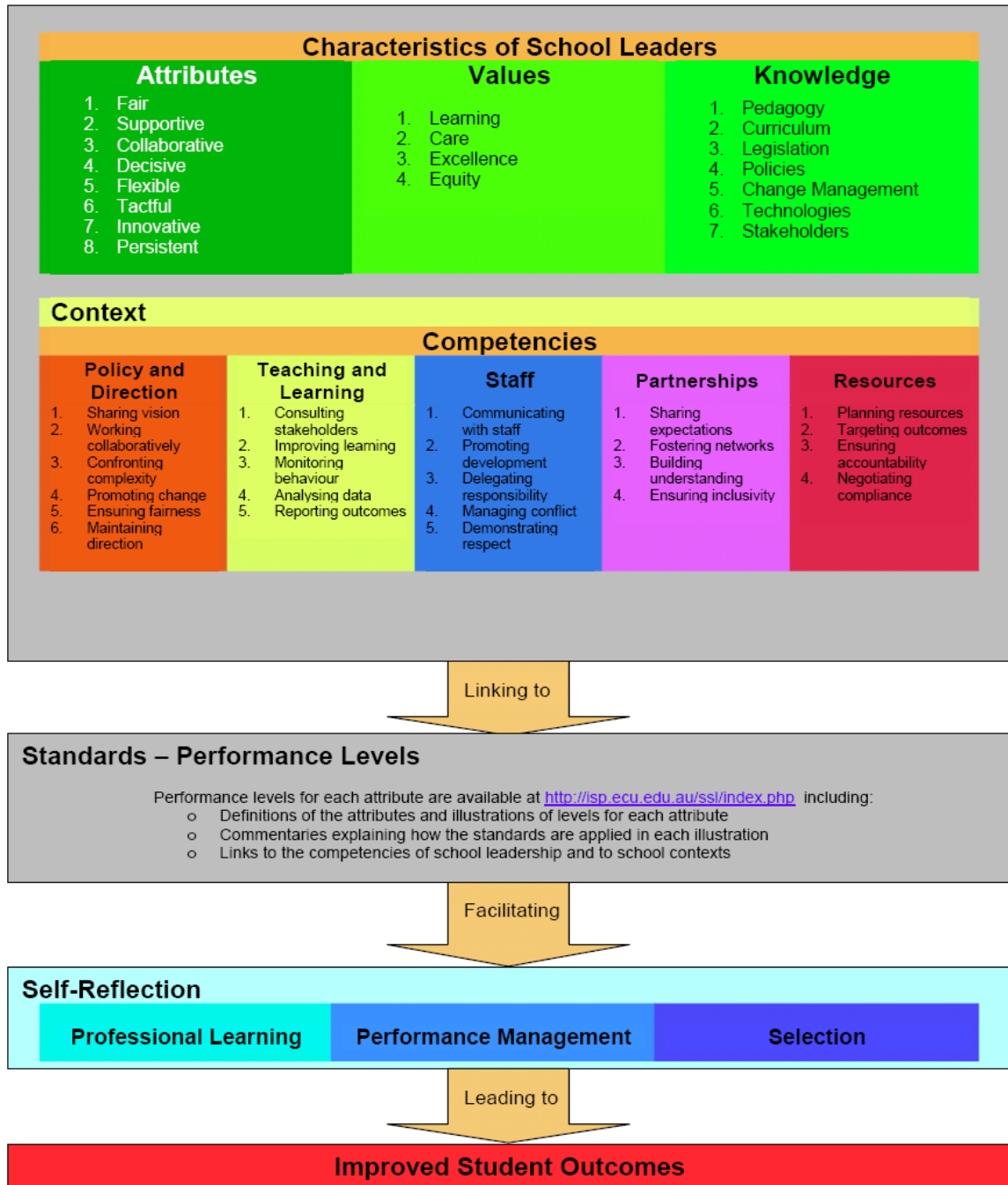
## 2. Background

This project had its beginnings as a pilot investigation of 112 principals in a WA education district which involved the evaluation of a paper portfolio project designed by a District Director to develop reflective practice in principals within a competency based scaffold (Dixon, 2002). The pilot study identified the perceptions of principals as to the effectiveness of reflective practice in developing their leadership skills, the adequacy of the training they received, the clarity of the goals and objectives, the value of participation, perceptions of future applications for a portfolio and what if any ethical issues were raised by creating a portfolio. The findings from this work demonstrated the need in a contemporary study, for a carefully constructed theoretical framework which led to the adoption of the Wildy and Loudon (2002) leadership framework. The research questions from this pilot study formed the basis of, and provided validation for, the instrument used in the current study. The pilot study proved to be a valuable foundation on which to build an ICT approach to professionalism and accountability in educational leadership through the use of an electronic portfolio.

The next step in the process was the engineering of the architecture of the portfolio. This meant developing a flexible and interoperable system which performed without the need for high level technical skills by the end user and which enabled the capacity to contain planning and goal setting functions, creativity, collaboration, support for reflective writing and the insertion of electronic artefacts, flexibility, transportability, and which was cheap and easy to use (Chang, 2002; Quintana, Reiser, Davis, Krajcik, Golan, Kyza, Edelson and Soloway, 2002). The portfolio platform had to meet the challenges of process management, sense making and articulation. It had to fit within a construction cycle of analysis, design, development, implementation and evaluation to ensure each aspect of the software functioned without technical or cognitive ambiguity (Gibson and Barrett, 2002). Considerations for the design features, text elements, links, graphics, formatting and site architecture were integral to utility; there were a number of requisite technical objectives which had to be met before the portfolio project could take place; the application had to be user friendly to facilitate people with limited technical skills. It was also important that participants could negotiate the portfolio experience with minimal training. The software had to be network compatible in order for participants to be able to share their information readily and to easily transfer files where necessary - as well as be able to store reasonably large files. The application had to be structured to suit the Wildy and Loudon (2002) conceptual framework adopted for the portfolio, and the

prototype application had to be developed from a blank canvas and authored specifically to meet the needs of the project.

## The Leadership Framework



A collaborative venture between the Leadership Centre, the WA Department of Education and Training, Murdoch University and Edith Cowan University.  
<http://www.eddept.wa.edu.au/lc>

Figure 1. The Leadership Framework (Wildy and Loudon, 2002)

### **3. The Study**

A convenience sample of eleven educational leaders was selected by the Western Australian Leadership Centre Board to take part in the portfolio project; eight completed the project (two Primary Principals, P1 and P2, three Deputy Primary Principals DP1, DP2 and DP3, and three secondary Heads of Department HD1, HD2 and HD3). Participants were given an overview of the project and training in the use of the portfolio in a one day workshop. Over the next year, each member of the group was regularly contacted and visited and assisted with any technical problems, as well as being motivated and supported to complete their portfolio. Portfolios were collected and the information provided was comprehensively analysed.

The study adopted the approach of naturalistic enquiry, employing inductive analysis to capture the details of participant experience, taking a holistic perspective so that the phenomena and complexities of everyday leadership could be brought to light (Patton (1990). Qualitative data were collected from portfolios to provide thick rich descriptions of educational leadership (Miles and Huberman, 2004). Both quantitative data and qualitative data were collected through a questionnaire developed from the pilot study. The information collected in this mixed method approach was analysed using the Ladder of Analytical Abstraction (Carney, 1990) as a method of summarising, repackaging, developing and testing propositions to construct an explanatory framework. The software package SPSS V16.0 was applied to the quantitative data to glean descriptive statistics. SPSS TAS V2.0 was used as a content analysis tool to interrogate the qualitative data.

### **4. Findings and Discussion**

#### **4.1 Electronic Architecture and Features of the Portfolio**

Although the electronic portfolio was perceived to have some weaknesses in elements of its design, the participants found that with perseverance and guidance they were able to navigate the application successfully and to insert some sophisticated, thoughtful artefacts. Their reflective artefacts seemed to invoke in them genuine surprise at the complexity of their task and their thinking when provided with such an opportunity for retrospection. Importantly, these artefacts addressed elements of the leadership framework with a poignancy and incisiveness which revealed much about modern educational leadership. The situating and storing of these artefacts was at times tricky for the non - technically minded and there were difficulties with the performance of the application in some machines as opposed to others (depending on the age, and the specifications of the desktop hardware being used). A clear strength of the portfolio application was in its

transferability, its interoperability and in its cost as opposed to the commercially manufactured behemoths some institutions have purchased.

Storage can be simple and cheap, given that it takes advantage of the surfeit of space on the hard drive of a personal desktop computer and that it doesn't require a dedicated server and the incumbent administration and maintenance costs associated with large scale production. Furthermore there are a broad range of easy to use software applications which are readily available, easy to use and potentially provide the opportunity for the use of more sophisticated examples of evidence. Not only does this have the potential to enhance the professional presentation of the portfolio, but it assists the reader to make better informed judgements as to the leadership skills and the level of accountability achieved by the author. The net effect of some of the perceived design and navigation faults was a ubiquitous complaint about the process being very time consuming - and time, according to these busy leaders was a precious and limited commodity. This feedback pointed to the need for simplifying the navigation palettes and the "crumb" trail and to the need for reducing the amount of text based information which could easily be replaced with established icons to speed up movement between pages. Ironically, and despite themselves, participants in the portfolio study reported that they very much valued the time they found to reprise their role by writing about their experiences and that the reflective writing in particular was a useful and growth promoting exercise.

#### **4.2 Interpretation and Management by Participants**

The portfolio concept was very optimistically received in the first instance as a potential line management tool, as a vehicle for professional growth and as a continuous development record which could be used to demonstrate leadership efficacy. However this tended to diminish somewhat over time for some of the participants - to the point where they were somewhat less optimistic. A minority found that it did little to enhance their own leadership and that they were ambivalent to future applications of the portfolio such as use as a tool for their staff – particularly in its existing form. Some participants were apprehensive about their personal narrative skills and inputting (typing, spelling, accuracy) skills and concerned that they were being encouraged to be self critical to the point that it created a degree of negativity and uncertainty which they found discomforting. This is sometimes seen as a typical response to someone engaging in some kind of semi-formal self-reflection for the first time.

However, the majority of participants provided positive observations about the project. Comments about the ease of transferability of the information collected and ease of updating were made. The portfolio was seen as an excellent store of information for future promotional applications especially

by principal aspirants. For most, the personal awareness which resulted from the self-reflection phase was the most highly regarded aspect of creating their portfolio - and in many cases it was also seen as useful to goal setting and planning within their leadership role.

#### 4.3 Promotion of Reflective Practice

Mezirow (1981) acknowledged the function of reflectivity as a method people used to attach meaning to their roles and relationships, which at its highest level - theoretical reflectivity - creates what he called “perspective transformation”. Perspective transformation is critical self awareness of habits of perceptions, of thoughts and of actions. It is also determined by critical awareness of the culturally determined conventions which influence the way we feel, see, think and act (Mezirow, 1981). His framework is a useful way to understand the levels of reflection in the narratives and artefacts collected in the current portfolio project. The highest level of reflectivity according to Mezirow is critical consciousness, which is “becoming aware of awareness and critiquing it” (p13). So for example when a participant in the portfolio project reflected upon an element of the leadership framework (and how to demonstrate it), recognised its complexity according to contextual elements, its importance to them and the system which underpins its inclusion - then the critique which naturally follows is what Mezirow called conceptual reflectivity. Psychic reflectivity follows from the conceptual in that it is a self awareness of the personal preconceptions which influence judgements on people, and therefore the way we perceive think and act (Mezirow, 1981). To reach the apotheosis of “theoretical reflectivity” and therefore perspective transformation is to become aware that cultural and psychological influences which pervade modern western philosophy do not always explain the way things are perceived and that new ways of understanding are necessary to make sense of the world and therefore transform thinking.

It is not surprising to note that the higher levels of reflection mostly occurred with the most experienced and senior members of the cohort. The youngest member, who was also the most prolific in the breadth, depth and complexity of the creation of the portfolio and who had mastered the technology better than any, demonstrated a surprisingly high level of *developing* skills as a reflective practitioner. The reflections of the entire cohort generally demonstrated the first four conscious levels of reflectivity and the beginnings of psychic awareness; for example in dealing with poor performance of a staff member one writer expressed an understanding of being measured by personal honesty and therefore having to accept the “interests and anticipations which influence the way we perceive, think or act” (Mezirow, 1981). Similarly reflections on leadership demonstrated evidence that the thinking expressed in the portfolios embraced theoretical reflectivity through the recognition that developing a leadership vision is constantly shifting; leadership philosophy is informed by feedback, revision and adaptation to change in a

dynamic environment. Therefore perspectives which at first seemed static had to be adjusted by adapting a new theoretical position to fit the information, thus achieving critical consciousness and perspective transformation.

#### **4.4 Artefacts and narratives' capacity to capture the characteristics and competencies of leadership**

The very nature of a social constructivist approach to education expressed by participants in this portfolio project, grounded the knowledge they provided (using personal narratives) in their social and cultural interactions (Egudo and Mitchell, 2003). The intimacy of these narratives opened a fascinating window for this researcher into the participants' perceptions of life as an educational leader. It is acknowledged that using narrative is fraught with criticism in that it takes on value laden perspectives; yet the multiple perspectives observed in this study, provided rich and intersecting versions of truth about everyday workplace leadership activities and responsibilities. This enabled an insight to the cultural and social entity that is WA schools, and education generally during 2005. Such insights included an obsession with planning and the associated planning processes. They provided insight into the dynamics of the interrelationships within a school community and the importance of human communication in the facilitation of compliance, the creation of vision as leaders and in providing for excellence in the achievement of students. Importantly the cohort creating the portfolios were able to relate their experiences in a direct illustration of the leadership framework of the Characteristics of school leaders (Attributes, Values and Knowledge) and the Competencies of school leaders (Policy and Direction, Teaching and Learning, Staff, Partnerships and Resources).

Those artefacts which were non-narrative in nature served as illustrations of key concepts within the framework in some of the participant portfolios, but often lacked any contextualising information or explanation which could have rendered them more pertinent. It appears that those who could insert the electronic images or audio did so because they could, rather than doing so because it enhanced any demonstration of competency or accountability. As it turned out, the strength of the portfolios was in the provision of reflective narratives which illustrated the framework and provided intimate knowledge of leadership.

#### **4.5 What current leaders are revealing about their role.**

The leaders taking place in the portfolio project wrote reflective comments mainly concerned with developing values and attributes in the manner of the Transformational Theories described by Burns, (1997); Bass, (1985) and Wright, (1996). Overall the data indicated that they attempted to present themselves as being "social constructionists" facilitating a whole school approach to the values and attributes considered to be acceptable in modern Australian life for staff, students and

the community in general. This was particularly manifest in their emphasis on creating 'doers', developing skills, providing for critical thinking, developing skills mastery, promoting academic excellence and in the promulgation of effective relationships. Analysis of key themes emerging from the data (see figure 2) also revealed that there was a firm belief across the cohort in the value of planning for good outcomes, the provision of a nurturing caring environment for social effectiveness and a commitment to high professional standards and continuous professional learning in the manner described by Sergiovanni (2001).

Importantly, values and attributes such as supportiveness, respect, fairness, influence, teamwork and collaboration exercised in a positive atmosphere pervaded the sum total of the reflective comments. This is a direct illustration of what Fullan (2004) noted as a "recent remarkable convergence of theories, knowledge bases, ideas and strategies" of Moral purpose, Understanding change, Relationship building, Knowledge creation and sharing, and Coherence making. Moreover, the participants were willing to explain how they acted upon these claims, relating anecdotes that purportedly demonstrated their commitment to the pursuit of excellence, the need for having a positive attitude, success orientation and a strong sense of values, beliefs and personal effectiveness which was provided (as far as they could determine it) in a supportive reliable, flexible manner.

This is what Pollard (2005) described as the qualities of reflective leaders in terms of concerns with aims and consequences, convergence with moral purpose, the cyclical process of continuous mentoring, evaluation and revision of practice converge with understanding change. Furthermore, Pollard (2005) suggests the competencies of reflective leaders are found in the use of methods of evidence-based enquiry where they converge with knowledge creation and sharing, open mindedness, responsibility and open heartedness which facilitate hope enthusiasm and energy. The application of judgement based on enquiry and the use of research, produces knowledge creation and sharing. Collaboration and dialogue with colleagues converge with relationship building and knowledge creation and sharing, and the creative modification of externally developed frameworks unite with coherence making.

All participants appeared to value their staff very highly. They felt a strong need to model good practice, to provide staff with professional learning opportunities and to encourage their growth, confidence and knowledge. They did this by providing (what they considered to be) effective performance management practices, giving prompt and constructive feedback, developing staff as reflective practitioners and providing for collaborative team building and for relationships both with and between staff members. Most important to these leaders was the development and



maintenance of the quality of the relationship they had with staff who they perceived as generally excellent, supportive and informed professionals.

The evidence suggested that this group of leaders developed these notions with an eye to ensuring compliance with regulatory requirements such as reporting, behaviour management, curriculum development and good pedagogical practices. However their approach underlines what McEwen (2003) said - that teachers who see principals as facilitators, supporters, and reinforcers for the jointly determined school mission rather than as guiders, directors, and leaders of their own personal agenda - are far more likely to feel personally accountable for student learning.

The leaders had a strong affiliation with the school environment as a key character in their leadership aspirations and responsibilities. This was established through the many references to seeking funding to improve facilities, to develop new programs and in the provision of a clear vision for a school culture. Leaders wanted to engender a sense of commitment by all stakeholders in the school as environment, the school as financially viable, and to guarantee that auditing and compliance structures were in place to ensure this. *School* took the meaning of community and culture, building esteem, developing pastoral care, improving both physical and human resources and the development of plans and priorities to ensure ongoing success of the school.

*Curriculum* emerged as an issue during the simultaneous transition phase for WA schools to Outcomes Based Education (which interestingly has since been abandoned due primarily to major problems and disagreements in the assessment area). So there was much rationalising and innovation and planning taking place to ensure sensible and realistic compliance with the new curriculum framework through a cycle of review, planning, improvement and feedback. Leaders were focussed on having new programs of study written, developing appropriate pedagogical practices in staff, and integrating ICT into the curriculum. It involved an emphasis on ascertaining skills and the professional development of staff capacity in order to provide for effective learning outcomes and the development of new assessment procedures. As a consequence these leaders led many meetings requiring the need to develop collaborative staff teams, a cooperative spirit, a sense of direction and vision and the setting of realistic priorities to prevent staff from being overwhelmed and burned out.

*School improvement* was a major concern of all participants in the project. This was driven by a DETWA (Department of Education and Training Western Australia) framework which set high standards for student achievement, focussed on the delivery of quality curriculum, through a shared vision which was inclusive, had structures to ensure students were supported, and with links to a

sympathetic community. To do this, leaders set as a first priority, developing a positive rapport with staff. At the same time they were developing school district contacts and a network of colleagues with whom they could collaborate, compare notes and share the workload. School improvement was achieved through behaviour management programs and trialling rewards systems for students. Success was celebrated with the community at public forums and through the local media.

Leaders focussed on developing in both staff and students what they generically referred to as positive trends such as politeness, success, the pursuit of excellence, social competence and resilience. They emphasised the need for improving results in literacy and numeracy, and in the integration and effective use of ICT as a tool for staff and students. School improvement was characterised as the need to build a professional culture in staff, measured by levels of staff satisfaction and the successful day-to-day functioning of the school in the systems and processes put in place. Words such as “better”, “opportunity”, “increasing”, “effective” and “developing” - permeated their language in the description of school improvement.

*Communication* was also an important ingredient in the leadership mix.

Communication was perceived as a crucial element for improving the relationship between staff, students and the community. To achieve effective relationships meant improving communication through collaboration, cooperation, trust and the facilitation of team spirit - utilising informal discussion, regular meetings and the provision of timely feedback. Participants saw the need to develop personal communication skills and self awareness as well as the need to provide development opportunities for staff to improve their skills, who in turn could model this behaviour for their students to absorb. Good communication also meant efficiencies could be achieved through effective planning and the development of committees to which responsibilities could be delegated. Communication and trust were significantly linked.

*Students* were a precedent always in the thinking of the leadership cohort. There was much evidence of fundamental concerns for their behaviour, their achievement, their performance, their physical, spiritual, mental and physical well being. Interestingly, students were mainly identified as ‘at risk’, ‘gifted’, or ‘coasting’. But there was no doubt that in the mind of the leaders participating in the reflective part of the portfolio, their world revolved around the needs of the children in their charge. This necessarily meant an emphasis was placed on strategic planning which coopted community resources, external resources, financial and human resources and any other resource that could help to solve perceived problems. Whole days were set aside by leaders for discussion by their staff to identify potential problems and existing problems leading to the implementation of

strategies such as anti-bullying programs, Aboriginal Education programs, programs which addressed poor performance, poor attendance, homework, behavioural modification, developing resilience, improving social and communication skills, improving self esteem, extending children academically; these are just a sample of the staggering breadth scope and variety of the programs undertaken . Almost everything that the leaders reflecting on their role were pointing to - was connected to the very best interests of their students.

Another focus was on the importance of *parents and the community*. It was recognised that the role of parents in the education of children was vital and that without their cooperation and understanding, education and their focus on developing students was a much more difficult task. Conversely leaders recognised that the involvement of the community brought with it problems of difficult and aggressive parents who tended to lay complaints-this was always treated as a matter of urgent immediacy. Thus, the leaders surmised that the key to minimising this concern was through regular communication (newsletters, letters to parents, phone calls etc) , regular meetings, encouraging feedback, listening to concerns, keeping a finger on the pulse by regular contact with staff and students and acting before any potential problem escalated.

*Leadership* was also couched in pedagogical terms. Participants saw themselves as leaders of change in teaching, learning and assessment processes and especially in terms of the importance of the need for ICT to be integrated within their schools. They saw themselves as modelling and promoting innovative ideas into teaching and reflecting their values and beliefs and vision for the school - measuring their personal success through their observations of the actions of their staff. They encouraged teachers to identify new learning styles and programs and to practice constructivist approaches to classroom activity. Students were profiled and individual programs developed to suit them. This meant more discussion to assess priorities in the allocation of resources, both physical and human. It was often executed and prioritised by introducing action research projects to determine evidence-based applications for funding to develop for example - assessment, staff knowledge and to raise the standards of delivery with the expectation of ultimately raising the standard of student performance. Participants in the portfolio project naturally considered leadership to be important.

What is interesting is how they interpreted leadership in terms of what they perceived was expected of them by Education Department bureaucrats, their staff, the students, the community and personally. In terms of the department, they saw themselves as the conduit for establishing policy, maintaining system processes, providing sustainable planning practices, adopting a change management style of leadership and providing for regulatory compliance. From the staff point of

view they saw their leadership role to be more about modelling practice, demonstrating awareness, their values and beliefs, encouraging participation - providing a vision and purpose. They perceived staff as wanting them to lead curriculum, develop pedagogy, provide professional learning and build positive collaborative relationships. For students, they saw themselves as leaders of teaching and learning, of behaviour management strategies, of improving and maintaining standards and the person responsible for providing a safe and positive environment. For the community they projected a persona which was the face of the school, the communicator, the person in charge who was decisive, fair, collaborative, supportive, flexible, tactful, innovative and persistent. And for themselves they perceived the need to be self aware and reflective, constantly improving their interpersonal skills, on top of the latest innovations and policy changes – and definitely in charge.

*Planning* was another important consideration. Planning and goal setting (interchangeable terms in the context of the overall reflections), were legitimated as a priority task by the sheer number of meetings, consultations and conferences filling the diaries of these busy leaders. These meetings were attenuated by the conflicting tensions of being accountable and decisive at the same time - as needing to project a transformative and collaborative leadership style (Wildy and Loudon, 2002). Practically, the meetings were often opportunities to consult and share information with staff and colleagues, to allocate resources to priority needs, which at the time was particularly concerned with the expansion of ICT infrastructure, but included interpretation of the Outcomes Based Education framework - the ramifications for change and its effective implementation.

Leaders expected *professionalism*. By this they meant they expected their staff to have the attendant skills of good teaching in such areas as curriculum, pedagogy, communication, assessment processes, good organisation and time management skills. They were expected to be ethical, well prepared, high performing, aware of regulations and supportive of the collective vision for the school in which they worked. They were expected to be knowledgeable, lifelong learners who were competent, confident and happy. Professional staff, according to the portfolio reflections, always attend meetings, contribute regularly and pull their weight in the day to day running of the school; for example yard duty, reporting accurately and on time, and attending parent/teacher meetings on both formal and informal occasions. Professionalism was a thick cloak of expected behaviours which could be broadly described as compliance.

*Collaboration* and collaborative behaviour was another priority. Team work was seen as an important and recurring concept in nearly all aspects of school life, but most especially in the promulgation of good working relationships; this was a crucial aspiration. The school culture for these leaders was viewed as a dynamic forward moving entity which could only be effective if there

was a harmonious chorus of communicating teachers, each with a collective sense of shared direction who could meet together, plan together, consult and collaborate for the greater good of the whole community.

The leadership cohort however, identified a number of *impediments* to creating the harmonious and effective school they were managing. Not surprisingly there was a degree of self doubt in the reflections, with some questioning of self worth and of personal capacity to take on the enormous responsibility which accompanied leadership - especially by the younger people in the group. Some were honest enough to articulate the need to suppress personal and counterproductive behaviours such as approval seeking. They did not want others to perceive their own sense of doubt, or irritation or frustration, or the fact that they were being overwhelmed by an issue. Mostly though, there was a battle to dampen the negativity which occasionally crept into the school from serious incidents, from depressed staff, misbehaving students or angry parents. There was evidence of constant frustration at the lack of funding for important projects such as with the need to implement ICT without any real training or enhanced infrastructure support. These impediments to the smooth running of operations were expressed euphemistically as “concerns” or “difficulties” or ‘constraints’. However what is most surprising about this category is that it didn’t dominate the thinking in the reflective comments; rather it was a muted and understated problem which probably reflects on the way these people handled it as a “not-for-public-consumption” issue.

Participants differentiated leadership from *management*. They did this by separating the roles associated with dealing with people, which was mainly considered to be leadership, as opposed to dealing with resources and processes which was considered to be management. This kind of separation was recognised by Cuban (1988) and by Dimmock (1999) where they describe leadership as linked with change whereas management is about managing for status quo predictability. Management to the leadership group was inextricably linked with accountability. It was the day to day administration tasks, auditing processes, signing off on paper work, developing forms and procedures, creating the cycle of performance management protocols, managing fiducial responsibilities, organising meetings, record keeping and a thousand other tasks. Management was a tedious but necessary task to these people and was rarely begrudged in the reflective comments. Comments from participants reflected almost verbatim the DETWA (2004) accountability framework which stated that accountability was about responding to information about performance, (what they were trying to achieve, how they were achieving it and how they could improve it), that accountability was linked to outcomes, that demonstrating accountability is a professional responsibility, that rigorous self assessment was essential to accountability, and that

schools are accountable to their community as well as the director general. And as leaders, the terminated buck was in a locked drawer inside their desk (to prevent theft).

The portfolio contents suggested that *process and policy* was an important responsibility that was a subset, but separated from the management role. Process and policy was demonstrated in terms of the proper training of cost centre managers. They identified audit processes, the implementation of corrective plans, self assessment and access to support services as essential in the effective discharge of their financial responsibilities. They also referred to resources administration including risk management and creating properly audited reports on their business affairs, and the management of funding as a key element of policy and process compliance.

The leaders taking part in the portfolio project were particularly anxious about the implementation of ICT into their schools. They recognised the significance of the impact it could have on learning, of developing higher order thinking and increasing motivation to learn by students and were therefore keen to promote its implementation as an urgent priority. They were particularly interested in the promise of ICT to promote literacy and numeracy and for helping the students and educational risk (SAER's) to develop their full potential. However there was much confusion as to what new equipment was required, what software packages were most suitable and what costs were associated with the updating of infrastructure. This meant many collaborative meetings with staff to discuss concerns in terms of hardware, software and training needs. Not surprisingly, many of the older members of staff were apprehensive as to their capacity to adapt to the new technology, which thus required a steady leadership style and a judicious allocation of resources.

The final area of common interest to emerge from the study was *change and change management*. Education across Australia and in Western Australia in particular, was undergoing significant upheaval. At the national level, funding was being provided as a matter of priority for students with special needs and for the production of quality teaching and learning programs generally. The identification and promotion of national standards and priorities for students, changes to reporting practices, an increase in school accountability and a strong push towards improving the vocational education sector to encourage students into areas of perceived employment shortages was underway. At the local WA level, indigenous education was particularly being scrutinised, there was an enormous emphasis on ICT implementation, values education was introduced and a tempest was raging both in education circles and in the public arena regarding Outcomes Based Education. Educational leaders were justifiably concerned about how to best review their own schools in the light of the new legislation, priorities and funding, at the same time as maintaining good staff relationships, demonstrating conformity, providing strategy and direction, acting upon feedback,

adjusting pedagogy, and ensuring students were achieving benchmark standards whilst keeping their sanity intact.

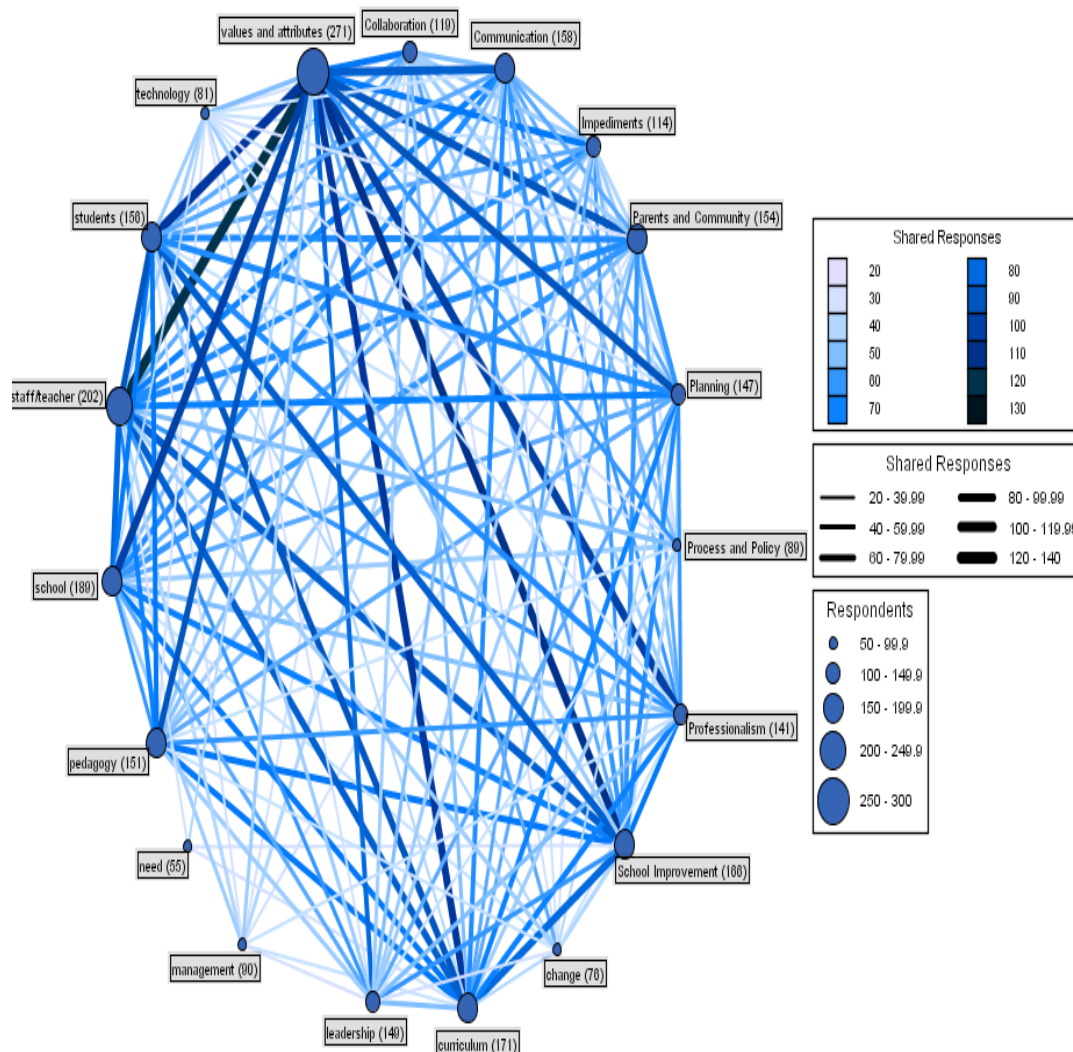


Figure 2. Summary of main themes from study

## 5. CONCLUSION

The study found that portfolios do promote reflective practice and can develop in Mezirow's (1980) terms, in diligent and experienced users, critical consciousness and perspective transformation. The Wildy and Loudon (2002) model has proven to be both a well founded leadership framework, as well as providing provided an excellent conceptual adaptation for the architecture of a portfolio. The project also provided excellent training for participants in what was expected of them as school leaders within the leadership framework. The project gave a detailed insight into the perceptions

and priorities of modern educational leaders and their practices in Western Australian schools. However the question as to whether or not the use of a portfolio has the capacity to promote accountability in educational leadership remains to be seen.

Further studies are needed to determine the sort of architecture which best suits portfolio software, but which avoids the prohibitive cost of purchasing, setting up and maintaining commercial software offerings. It is recognised that the current study advances the leadership adoption of a parochial framework (albeit a well researched framework which has many generic leadership features) that may not be suitable to other education contexts, especially those which lack ICT infrastructure and support. It would be interesting to see how the current portfolio and framework fits with other systems and cultural norms other than the one which framed it and to see how it could be adapted to new circumstances. Of course the assessment and the evaluation of a significant number of portfolios which are artefact dense is also a practical challenge in relation to time and resource requirements.

Whichever way you look at it, the challenge is in the development of our educational leaders who ultimately create the environment which nurtures the children who become the leaders of a new generation. It is these leaders who brave the winds of constant political change in the pursuit of excellence, to whom that this paper is dedicated.

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