Minnesota State Colleges and Universities
Cohort III
Final Report 2009

Higher education leadership is challenged today in finding ways to be responsive to federal and state education departments, accrediting agencies, and higher education systems need for accessing and displaying data and information that are both efficient and effective. Alexander (2000) points out that the use of publicly generated resources is driving a new motivation for accountability and that state governments are placing an increased burden on higher education to play a role in redefining educational objectives and achievements. States are requesting the use of indicators that measure institutional efficiency, satisfaction, workforce placement numbers, and value for the dollar. The need to demonstrate how assessment data might be shared with the public concerned about educational quality in colleges and universities is a vital component to fostering excellence in teaching and learning.

Like most higher education systems trying to find an answer to the pressures for high performance and accountability, the Minnesota State Colleges and Universities system is searching for ways to measure and report on student success. Minnesota State Colleges and Universities directs eFolio Minnesota™, a statewide electronic portfolio infrastructure system that supports individuals and institutions. Our research project focused on how eFolio Minnesota™ can be used to demonstrate, support, and foster interconnections between purpose and practice among students, faculty, and institutions to empower both individuals and institutions.

> ➤ **The overall research question asks: "Does the use of eFolio Minnesota to document accomplishment of learning and other outcomes also enhance learning and influence decision-making for individuals and organizations?"**

1st Chancellors Initiative
In 2006 – 2007 the team identified a research project that will first examine how and to what extent eFolio Minnesota supports and documents interconnections among these three key stakeholders:
- student focus = documenting achievement of learning outcomes.
- faculty focus = documenting program effectiveness regarding standards of college and/or accrediting agencies.
- institutional focus = documenting evidence of learning.

Prototypes were defined and selected. Libraries of competencies using eFolio tools for disciple specific areas in conjunction with program accreditation were built. Scope of assessing learning outcomes at the program level was explored.

2nd Chancellors Initiative
In 2007 – 2008 the team focused on accessing the Dental Assisting and Liberal Arts pilots as a tool to provide evidence of learning for assessment documentation, particularly for accreditation purposes.

The Dental Assisting and Liberal Arts pilots created an environment that guided learners toward the inclusion of evidence of learning of their program-specific leaning outcomes,

MnTransfer outcomes, and the college's general learning outcomes. Templates were designed to encourage learners to showcase their accomplishments—both in and out of the school setting, their experience, and their civic contributions-- in support of their employment search.

To help ensure that learners have completed learning activities that can appropriately demonstrate their learning, faculty were encouraged, through their assessment plans, to identify the classes and specific assessments within those classes that would provide suitable physical evidence of learning for each outcome—both program-specific and general-- that learners could include in their portfolio. Faculty identified evidence-producing assessment mechanisms such as certificates or check-sheets of demonstrated skills (e.g., dental assisting skills demonstrated in the lab), in-class comprehensive projects, exams, papers, presentations, photos of completed projects, group project feedback reports, and evaluations from internship or clinical supervisors.

3rd Chancellors Initiative

In 2008 – 2009 the team focused on a Minnesota State Colleges and Universities research model that can be replicated within other state/system wide initiatives. The team continues to establish goals for collecting best practices, effective teaching practices, and demonstration of assessment of student learning models.

Research and Findings

The research and findings will be placed into three sections; (1) Institutional ePortfolios (2) Program ePortfolios and (3) Student ePortfolios.

I. The Institutional Electronic Portfolio

The Institutional Electronic Portfolio established for the Minnesota State Colleges and Universities System identifies, disseminates, and supports best practices in institutional accreditation management. This section describes the research study which focused on institutions within the Minnesota State Colleges and Universities system who are utilizing the eFolio Minnesota™ tool to develop institutional electronic portfolios for accreditation purposes, its impact on the institutions and educators, and its expected outcomes.

The purpose of the study was to discover how institutional electronic portfolios contributed to the learning organization by demonstrating accountability to stakeholders and serving as a vehicle for institution-wide reflection, learning, and improvement of higher education institutions through the implementation of an institutional electronic portfolio tool being used in the Minnesota State Colleges and Universities System. Moreover, the study yielded information to strengthen institutional electronic portfolios use, applicability, validity, and provided a tool that may improve institutional process efficiencies for accreditation.

The process to carry out the research for the study included combining both qualitative and quantitative methods. During May and June, 2008, the author surveyed users of eFolio Minnesota™ technology to examine their perceptions of institutional electronic portfolios for accreditation purposes. Participants engaged in the study were Higher Learning Commission/AQIP member institutions currently using eFolio Minnesota software to prepare their AQIP Systems Portfolios for accreditation.

The research addressed the following questions: (1) How can the institutional electronic portfolio provide valid and reliable information to the public on performance along with other types of consumer information? (2) Are accreditation decisions based on the institutional electronic portfolios more reliable? (3) How does institutional electronic portfolio development demonstrate institutional effectiveness? (4) Are institutional electronic portfolios resulting in greater emphasis on teaching and student learning outcomes? Responses to these questions acknowledge the early development of the use of the tool in this critical area of accreditation. In addition, the impact of the responses was also beneficial to understand the changes that are needed within an institution to contribute to the learning organization.

The outcomes of the study included recommendations for the Minnesota State Colleges and Universities system academic leadership and to the Higher Learning Commission, Academic Quality Improvement Program (AQIP) regarding the use of institutional electronic portfolios to improve public accountability and transparency of data. The findings from the research study may benefit other higher education institutions and assessment center employees who are engaged in enabling and enhancing efforts to change the paradigm of effectiveness and documentation of learning within our higher education institutions. Over the last few years higher education has heard the need to be more responsive to the public. The latest National Association of College and University Business Officers Report (2008) confirmed that higher education executives interviewed had varied views on the Spellings commission's work and that all agreed that the commission's report had undoubtedly attracted the community's attention and was a "call to action."

The following recommendations are proposed to assist in strengthening the institutional electronic portfolio use, applicability, validity, and institutional process efficiencies for accreditation:

1) The first recommendation is to investigate additional technology and tools that might help facilitate accrediting agencies reviewer's knowledge of the new formats for documentation of institutional processes. Technology, such as web enhanced meeting rooms, consensus software for decision making, and electronically assisted tools for communication could generate an environment that would cultivate a means to valid and reliable materials in an electronic format.

2) A second recommendation is that institutions look at the "holistic" approach to assessment. As illustrated in the perceptions reflected in the research survey, there was limited awareness of the potential use to document organizational learning. While many studies have proven that student electronic portfolios can be used for reflection of learning, similar avenues exist for an organization to reflect on their accomplishments and the knowledge that they have gained over time. Artifacts of student learning, as well as artifacts of an institution's continuous improvement processes would foster a culture of change.

3) Finally, the research suggests that future studies examine the impact of digital storytelling and how it would affect accreditation writing and documentation. As the literature suggests, the interesting software will be software that is connected to the web. Batson (2008) emphasized the affordability of Web 2.0 tools such as wikis, blogs, and social networking environments identified how these technologies are creating new pathways for how next generation electronic portfolios, and described how they can be designed, accessed, shared, and presented. Further research will help

strengthen the belief that institutional electronic portfolios fused with multi media tools to enhance documentation are effective for meeting public transparency.

The impact of the research plays a vital role in the implementation of the use of institutional electronic portfolios for public accountability and accreditation purposes. Insights into the strengths and weaknesses of the study identified best practices and problem areas that need to be addressed in a larger educational context. Future research and discussions will lend to credibility and trust of utilizing institutional electronic portfolios for such an important process as accreditation on topics such as:

- Engagement of teams and feedback within an organization.
- Data management of information and public security.
- Implementation of website design & template options.
- Uses of multi media to enhance documentation of print materials.
- Transparency efforts from paper to a multi media environment.
- Comfort level with technology and technology literate reviewers.
- External access – discussion regarding decisions of "what's public"
- Reviewer's engagement & modifications of training to address reviewers concerns.

II. Program ePortfolios

At the time that we began this study, the Northwest Technical College (NTC) Dental Assisting program was undergoing an accreditation self-study and needed to develop a resulting report. Using the college's Systems Portfolio structure as a model, faculty in the Dental Assisting program used eFolio to create the Dental Assisting Self-Study Report. Even though the accreditation requirements required a written report, the faculty used eFolio to develop a clear, structured report that was then simply copied into a printed document, as required. Reviewers were asked to use the electronic version in their review, and an interview with the reviewers after the site visit, indicated that they had used it and found it to be user-friendly.

The challenge faced in using eFolio for the Dental Assisting program accreditation process lay in the fact that the Commission on Dental Accreditation had not solicited such a web-based portfolio, so the program faculty also needed to provide the documentation requested in printed form and as a pdf document. Despite that fact, the faculty decided that eFolio was a good way to structure the self-study report, and they proceeded to use it. They believed, and as the results of the self-study proved, the benefits of using eFolio remained regardless of whether the resulting report was accessed electronically or not: it allowed easy access to program information, it allowed faculty to update and keep their documentation current, and it provided a means of linking the individual learners' eFolios to the program to demonstrate the level of learning achieved. In addition, the reflective process of what to include and how to best showcase the program though this electronic portfolio, provided a higher level of analysis of learner achievements and program quality on the part of the faculty, the learners, the reviewers and the public at large.

In further adaptations of the integration of electronic portfolios within the Liberal Arts Division at South Central College, faculty realized a value best referenced as "learning connections" when the curriculum and assessment matrix process [of the previous two years] morphed into a long-term solution for program improvement and review. You will see that work highlighted under "student ePortfolios in Section III of our report. It is worth noting

that this initiative has now been implemented by all faculty in the Liberal Arts Division and that they will be implementing their first program-level evaluation of student ePortfolios for the purpose of program review in June 2009. South Central College is now engaged as a VALUE Partner Campus and faculty are testing the AAC&U metarubrics to assess local undergraduate e-portfolios.

An aligned and multi-dimensional evaluation plan addresses course competencies with outcomes identified in "College Learning for a New Global Century" (American Association of Colleges and Universities) and the Minnesota Transfer Curriculum in conjunction with criteria highlighted in the "Commission Statement about General Education" (Chapter 3: The Criteria for Accreditation; HLC) . A pilot semester allowed the program staff to determine what supports would be needed by students and what professional development would benefit faculty adopters.

Questions surrounding the issues of retention (both student enrollments and student learning) remain unanswered to date but provide an interesting baseline for future solutions. Just as student work in writing-intensive courses can be tracked over time, current discussion surrounds the concept of tracking students enrolled in portfolio-intensive courses or programs.

Replication of the approach used at South Central College is the basis of many conversations at the program level at other campuses within the MnSCU system. It is important to note that this is an early effort and many assumptions and support issues are being worked through as they are identified.

III. Student ePortfolios

Working through the South Central College (SCC) implementation it became obvious that promising practice was influenced by the following assumptions:
- Instructors more directly assess learning outcomes at a macro level once they have mapped the specific connections linked to course learning outcomes.
- Performance assessment is explicitly defined by levels of mastery.
- Guided reflection is best directed and maintained by clearly articulated questions.
- Instructors must be purposefully involved as facilitators but the student must be at the center of the learning process.
- ePortfolio tools must provide a consistent framework without being restrictive to the user's creativity and personal representation.
- Technical support, eMentoring, and instructional documentation is a necessary provision to encourage the self-sufficiency of users.
- Portfolio assessment of learning outcomes is uniquely different and imposes a cultural shift of the assessment process.

Of the previous list, developing the skill of reflective writing presented a challenge not only to community college students but also to the mentors and faculty guiding the process. Believing that for portfolios to have profound impact, reflective writing is essential, it was not only necessary to provide resources that students and faculty could reference but to anticipate the need in student mentoring sessions and in professional development settings. A secondary but important element was the identification of projects and artifacts that would be appropriate for selection within a targeted outcome. The eFolio Minnesota interface (using

ToolKit) assisted in the aggregation of responses and work samples related to specific outcomes but faculty needed to articulate what was acceptable in the framework of their expectations and criterion.

This does not occur in a vacuum. Faculty often find it necessary to ask questions of intentionality to get this right—those questions include but are not limited to examples listed below:

- To what extent are the students expected to master the knowledge, skill or attitude identified?
- Are students actually prepared to demonstrate their competency as linked?
- How should course content or assessment tasks be revised to achieve evidence of deeper learning?

It was during the initial project pilot that conversations about assessment began to evolve. The hallmark of the faculty experience at this stage is best captured as "candid and open dialog about assessment—what was known, misunderstood, or other perceptions within that spectrum." The strength of impact is that conversations of that depth threaded through the entire project.

We believe that evidence of increased technological literacy can be tracked in addition to the outcomes-based learning connections mentioned before. More formal examination will be needed before such claims can be substantiated beyond anecdotal evidence in the implementation at SCC.

The next logical iteration [at NTC] for a comprehensive approach to using eFolio was to integrate individual portfolios with these institutional level uses. As a result, the college has embarked on an AQIP Action Project focused on implementing the use of learner eFolios across the campus to document learning of programmatic and general learning outcomes, including posted artifacts and accompanying reflections about the learning process and product. This project is in its pilot phase, and six program areas of the college, including the Dental Assisting program, are working to implement the use of an eFolio template and process that will ultimately enable all programs to systematically include learner eFolios as evidence of learning. This will be important to the programs' ability to respond to calls for accountability by the public, by the college's accrediting body, by the college, and by individual learners.

In addition to providing documentation of achievement of the program's learning outcomes—both technical and general--the college's eFolio template encourages learners to reflect on their learning so they become more intentional about what they learn, how well they learn it, and how well they can not only apply what they've learned, but also communicate this to others.

In approaching the use of electronic portfolios from the three perspectives of institution, program, and individual, it became obvious that there are many overlapping areas, or mutual outcomes, for which evidence of achievement is both desired and required. It would seem a logical conclusion that the better an institution can systematically identify, or target, outcomes for which there is accountability at all three levels, the better it can concentrate, or "merge" its efforts to improve these outcomes (see diagram) and build a stronger, more cohesive foundation of quality overall. To the extent that using electronic portfolios at all

levels increases the capacity for identifying such outcomes, the learning organization can focus on the outcomes that deserve the most attention in order to see the greatest degree of positive results.
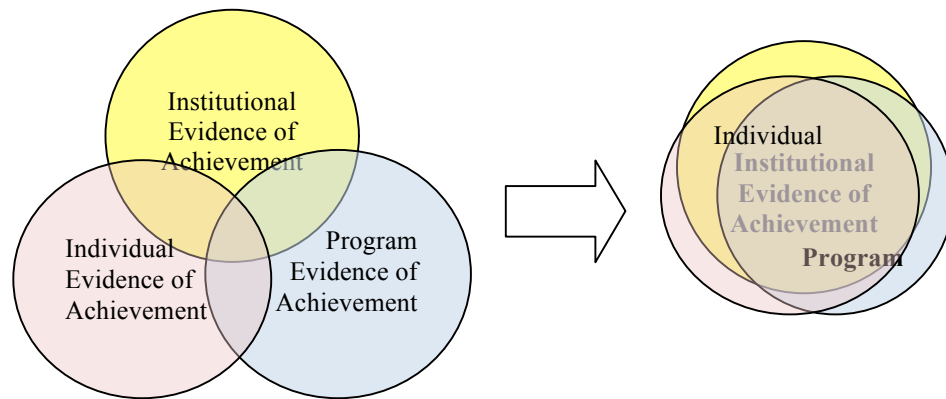
There is often a gap between learning how to use the ePortfolio interface and the results we hope to achieve. Our projects at two distinctly different campuses have provided insight that a greater need exists to embrace portfolio thinking in our practice. Assessment often drives the first experiences of a person or institution with electronic portfolios but it is the more holistic approach identified in the diagram above that achieves the more purposeful impact.

Conclusion
In conclusion, higher education institutions are being faced with the need to make information available to the public. New frameworks for addressing accountability issues are on the rise. As the push for accountability becomes stronger, higher education institutions are searching for answers regarding what data and criteria are necessary. What targets will drive performance? The heart of the questions become more outcome-based than input-based.

More is expected of the leader's role to help faculty and other campus staff develop a positive attitude toward assessment and quality assurances supporting efforts to improve. This research offers encouragement to higher education to examine the changing culture in the world today and to maintain the critical balance for sustaining a competitive edge for the institution by communicating and demonstrating the importance of the learning organization.

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