e-Portfolios: Digitizing Learning Outcomes

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Abstract

One form of authentic assessment being widely adapted in higher education is portfolio assessment. Diane Hart defines a portfolio as "a container that holds evidence of an individual's skills, ideas, interests, and accomplishments." The ultimate aim in the use of portfolios is to develop independent, self-directed learners. Long-term portfolios provide a more accurate picture of students' specific achievements and progress and the areas of needed attention. E-Portfolios are a valuable learning and assessment tool. An e-Portfolio is a digitized collection of artifacts including demonstrations, resources, and accomplishments that represent an individual, group, or institution. An e-Portfolio is more than a simple collection—it can also serve as an administrative tool to manage and organize work created with different applications and to control who can see the work. E-Portfolios encourage personal reflection and often involve the exchange of ideas and feedback.

E-Portfolios allow students to demonstrate competencies and reflect upon experiences, documenting academic preparation and career readiness. Creating e-Portfolios enables students to enhance their learning by giving them a better understanding of their skills, as well as where and how they need to improve to meet academic and career goals. Additionally, the digital artifacts that students accumulate can be used to assess learning at the course, program, departmental, and institutional level.
Background

Educators do not just want students to know the content of the disciplines when they graduate, transfer or move on to the workforce. Educators, indisputably, want students to be able to apply the acquired knowledge and skills to other coursework and in the “real world.” So, Del Mar’s methods of assessment have to also indicate if students can apply what they have learned in authentic situations. If a student does well on a test of knowledge, one might infer that the student could also apply that knowledge. But, that is rather indirect evidence. The ability to apply knowledge could more directly be validated by asking the student to apply what they have learned in some other meaningful way. A substantial body of research on learning has found that no one can simply be fed knowledge. Using information gathered and whether taught or from personal experiences with the world, everyone needs to construct their own meaning of the world, (e.g., Bransford & Vye, 1989; Forman & Kuschner, 1977; Steffe & Gale, 1995; Wittrock, 1991). Thus, assessments cannot just ask students to repeat back information they have received. Students must also be asked to demonstrate that they have accurately constructed meaning about what they have been taught.

Authentic tasks not only serve as assessments but also as mediums for such learning. Regarding the traditional assessment model, answering multiple-choice questions does not allow for much variability in how students demonstrate the knowledge and skills they have acquired. On the one hand, that is a strength of tests because it makes sure everyone is being compared on the same domains in the same manner which increases the consistency and comparability of the measure. On the other hand, testing favors those who are better test-takers and does not give students any choice in how they believe they can best demonstrate what they have learned. Thus, it is recommended (e.g., Wiggins, 1998) that multiple and varied assessments be used so that 1) a sufficient number of samples are obtained (multiple), and 2) a sufficient variety of measures are used (varied). Variety of measurement can be accomplished by assessing the students through different measures that allows educators to see them apply what they have learned in different ways and from different perspectives. Even though students might be required to produce the same authentic product (i.e. writing assignment, speech, lab experiment, etc.), there can be room within the product for different modes of expression. One such authentic product is the e-Portfolio.

Using portfolios to showcase and assess learning is not a new idea; they have been used in the arts for many years. What is new, however, is the concept that portfolio assessment is applicable in many different disciplines, and that portfolios can be shared with various audiences via the Internet. E-Portfolios are becoming more popular because they offer several potential benefits to students, faculty members, and institutions.

Electronic Portfolios have been described as “the next big thing” in higher education campus computing (Young, 2002). The landscape of e-Portfolio development has expanded dramatically within the last few years. Many colleges and universities have spent the last five years establishing electronic portfolio systems or services. The opportunity for the students, the faculty, and the institution to create and assess goals and learning outcomes through an E-Portfolio Program is becoming increasingly
essential in order to provide students and faculty with a rich view of a student’s educational growth and development throughout a student’s academic career and provide a comprehensive picture of student growth for program and institutional assessment. Cambridge (2001) points out that reflection is central to learning, and the reflective core of sound learning portfolios is what transforms mere accumulated information to meaningful knowledge.

According to the American Association of Higher Education (2001), “portfolios have a wide-ranging purpose in a variety of contexts for the collection of meaningful evidence about learning outcomes.” Portfolios are an effective form of alternative assessment that encourages students and educators to examine skills that may not be otherwise accessed using traditional means such as higher order thinking, communications, and collaborative abilities (Buzzetto-More, 2006; Wright, 2004). According to the ePortConsortium (2003) the benefits of electronic portfolios in education are that they help students develop “organizational skills; recognize skills, abilities, and shortcomings; showcase talents; assess academic progress; demonstrate how skills have developed over time; make career decisions; demonstrate that one has met program or certification requirements; and promote themselves professionally.”

“Learners need to make a connection between personal, professional and academic learning” (Goldsmith, 2006). A portfolio should require students to collect, assemble, and reflect on samples that represent the culmination of their learning (Chun, 2002) providing students with a diversity of opportunities to skills and abilities. Portfolios help students to make this connection and become life-long learners. Students need to make the connection between what they have already learned, what they are learning, and what they will learn in the future. Electronic portfolios are quickly becoming the primary means in academe for students to demonstrate and reflect on learning in a way that helps students build and apply information literacy skills (Lorenzo & Ittelson, 2005a), which is the “ability to collect, evaluate, assemble, reflect upon, and use information in order to learn and inform problem-solving and decision making” (Bruce, 2003).

Online portfolios have a number of advantages over those that are paper based as they support: “a greater variety of artifacts and allow for greater learner expression; are dynamic and multimedia driven; accessible by a large audience; contain meta-documentation; easy to store; and may serve to promote a student academically or professionally” (Buzzetto-More, 2006). The collection of artifacts contained within a student learning portfolio can include text based items, graphic or multimedia driven elements, websites, and/or other items captured in an electronic format (Lorenzo & Ittelson, 2005a). According to Lorenzo and Ittelson (2005b) the skills required in the creation of electronic portfolios helps students learn, understand, and implement the information literacy process.

The potential benefits this form of assessment has in terms of student learning outcomes are boundless. E-Portfolios demonstrate students’ academic achievement and personal growth; integrate educational experiences, be they formal or informal, curricular or extracurricular; present examples of student’s work and reflective writings that exhibit the student’s understanding and attainment of learning outcomes. In many ways authentic, student-driven portfolios are a measurement of the quality and effectiveness of an institution.
Benefits to students

Improved technology skills

The process of e-Portfolio development requires students to develop transferable skills. These include the ability to produce and save documents in appropriate digital formats, to code HTML directly or to edit it indirectly using specialized software, to capture and process digital imagery and video using specialized hardware and software, and to upload digital files to Web servers. Such skills contribute to students' ability to use information technologies effectively throughout their academic careers and beyond.

Improved self awareness

Transcripts of courses taken and letter grades earned, along with résumès that outline achievements and qualifications, are obviously useful as summative lists of accomplishments. However, these documents fail to convey the extent to which all students possess the knowledge, skills, and dispositions that four-year universities and employers need and expect. E-Portfolios enable students to share authentic examples of their academic work and outside activities with potential transfer schools and employers. Equally important, the e-Portfolio development process provides students with opportunities to reassess career goals taking into consideration their own reflections and others’ responses to their archived materials, and to revise their goals accordingly. Students will be able to decide early in their academic career if their choice of study is the right choice of study taking in to considerations their knowledge, skills, and disposition.

Increased learning effectiveness

Learning takes place within multifaceted psychological and sociological environments. The number of interacting variables involved makes it extremely difficult to measure meaningful learning objectively. Like other proposed educational innovations, proponents' claims that e-Portfolios offer the potential to enrich teaching and learning rest primarily on assumptions, participant observation, and force of argument, rather than on results of controlled experimentation. The key assumption related to student learning via e-Portfolios is that they provide opportunities to increase student engagement, and that "the engaged learner, one who records and interprets and evaluates his or her own learning, is the best learner" (Yancey 2001b, p. 83). Evidence from earlier experimentation in computer-aided instruction supports the assumption. In a review of the impact of multimedia software on learning, Hutchings and Associates (1992, p. 171) found that "most learning seemed to occur with those who had prepared the course material rather than those who received it." This conclusion is consistent with constructivist theory, which argues that learners actively construct their own knowledge rather than simply receive it from instructors, authors, or other sources (Jonassen 1991; Dana and Tippins 1998).
**Benefits to faculty**

**Increased student motivation**

Instructors who have required or encouraged students to "publish" their work on-line report that many students willingly accept opportunities to develop and use information technology skills. Such students are likely to devote more and better effort to such assignments than they otherwise might, knowing that their work will be viewed by someone other than their instructor. Students have a stronger sense of ownership of their work when it is.

**Contextualized assessment strategies**

By providing visible evidence of student achievement, e-Portfolios offer great promise as a means to assess the effectiveness of individual classes as well as entire academic programs. This potential can only be fulfilled, however, if faculty members specify in advance, and in detail, what students should know and be able to do after successful completion of a class or program, and if assessment and evaluation strategies are properly aligned with the specified learning objectives. The introduction of an e-Portfolio assignment therefore provides motivation for individual faculty members and entire faculties to reflect upon the mission and goals of their courses and programs, and to specify assignments that are likely to help students achieve goals.

**Opportunity for more rewarding advising**

e-Portfolios can enrich the advising process by providing a means for advisors to get to know their students. One of the most ambitious student portfolio initiatives among U.S. higher education institutions, the so-called "K Plan" adopted by Kalamazoo College, was specifically designed as a means to enrich academic advising. According to program consultant Emily Springfield, many (but certainly not all) advisors recognized that student portfolios afforded the potential to facilitate "deeper discussion of students' goals and choices" than they typically experienced (Springfield 2001, p. 55).

**Benefits to Del Mar College**

**Opportunity to respond to calls for greater accountability and outcomes-based accreditation**

U.S. higher education institutions face unprecedented expectations for openness and accountability by the public as well as state and federal government agencies. At the same time, the organizations that accredit such institutions have begun to insist that institutions demonstrate in more measurable ways that their students possess the competencies needed to succeed in their chosen professions. Student e-Portfolios offer the potential to enable students to demonstrate in their own words, and with the products of their own efforts, the value and effectiveness of their educational experiences.

As with any other innovation, there are challenges and costs associated. These include issues such as: time related to creation, maintenance and evaluation; the difficulty of establishing evaluation method; equal access to technology and skills; cyber-plagiarism; privacy; and free speech. Despite these challenges, Del Mar faculty and administrators need to look for ways to integrate more authentic approaches to assess what it is that students know and can do. Students can portray their academic experiences in many different ways, ranging from a simple résumé, to an interactive résumé that links out to specific evidence or...
accomplishments, to an elaborate e-Portfolio that includes reflections related to these experiences. Student e-Portfolios result when faculty and administrators require students to publish purposeful collections of examples of their work, and to justify the examples with reflective explanation. Comprehensive e-Portfolios result when students are asked to draw examples and reflections associated with several courses, or from curricular activities spanning a student’s entire academic career.

“A portfolio tells a story. It is the story of knowing. Knowing about things . . . Knowing oneself . . . Knowing audience . . . Portfolios are students’ own stories of what they know, why they believe they know it, and why others should be of the same opinion” (Paulson & Paulson, 1991, p. 2). E-Portfolios are student-centered and an innovative way to encourage students to become more actively involved in planning, and more responsible for achieving, their own educational goals. Moreover, there are many applications for an e-Portfolio beyond student use. Walvoord (2004) emphasizes “Portfolios must be used more like case studies than large samples. Their purpose is to bore a deep but narrow hole, to give richer texture and depth to the institution’s understanding of how students learn” (p. 77).

**Student Learning Outcomes or Goals**

For educational purposes, the definition of a portfolio is a collection of student work over a period of time. A portfolio is an authentic performance based assessment tool. It is used for evaluation by demonstrating how and what the student is learning. An electronic portfolio simply means that the portfolio is technology based. There are many several types of electronic portfolios. (See Appendix 1 for a list and explanation of types of e-Portfolios.) Most allow for flexibility so that the teacher or facilitator can focus and or measure a specific skill or concept.

Because teaching methods and strategies have changed and will continue to change as research and technologies make advances, the means to assess students must also keep pace. Portfolio assessment began as a way to more accurately evaluate a student. By organizing and collecting student work samples, teachers could chart student progress. Oftentimes these portfolios become bulky and take up a lot of room. Other problems include the organization of it as some work samples were of various sizes often too large to be kept in a folder or binder. With the creation of an e-Portfolio, students are able to compile virtually a “binder” that can be accessed anywhere there is an Internet connection. A student does not have to create a separate portfolio for every course; the student’s complete academic career can be documented in one location in one e-Portfolio. Thus, the student’s e-Portfolio can be accessed by instructors, administrators, and accrediting agencies or other outside individuals (with permissions) to evaluate and determine a student’s, a program’s, or an institution’s merit and/or efficiency.

One goal that an e-Portfolio program would be implemented for is evidence of the student’s accomplishments. Building and maintaining an e-Portfolio empowers students to take responsibility for the quality and direction of their education by:

1) Providing a concrete map of accomplishments and individual growth for the length of a student’s time at Del Mar College;
2) Enabling students to reflect on their collected samples and identify trends in their interests to help in creating future goals;
3) Identifying inter-related skills from various classes. This would lead to greater cohesion across core curriculum. This would also aid in the creation of related programs such as Reading Across the Curriculum and Writing Across the Curriculum.

Del Mar asks, “What’s Your Dream?” There are two roads an individual can take to achieve the education and skills needed to be a success. One is to pursue an academic degree and follow a professional path. The other is to achieve a skill that is in current demand. The Association for Career and Technical Education noted three successes that can occur when career and technical education is viewed as workforce education: “1) Workforce education is a key element in economic and educational development, 2) Public understanding of and support for workforce education supports the belief that all learning contributes to the development of productive citizens, and 3) The education community understands that preparing all students for careers benefits students and strengthens public education and the national interest.” Having students create an e-Portfolio will teach students the skills of information management and active recordkeeping. More importantly, creating a web-based portfolio teaches students to maintain one’s own “virtual identity.” Creating an e-Portfolio as a showcase for one’s “virtual identity” teaches the art of self-presentation. No matter where their academic journey takes them, students will have the skills to present themselves, their qualifications, and evidence of their skills and accomplishments in an organized, portable, and easily accessible format. And, most importantly, students will be able to show their e-Portfolio to prospective transfer schools or employers and demonstrate they have the following skills: critical thinking, problem solving, collaboration, written communication, information technology application, creativity, lifelong learning, ethics and social responsibility, self-direction, oral communication, and work ethic.

Implementation Plan for QEP Including Assessments

Jafari (2006) asserts that electronic portfolios have different meanings among potential users. Provosts, deans, chairs, career centers, faculty, students, accrediting bodies, and professional organizations all perceive different functional requirements of an electronic portfolio system. As a result, Jafari recommends that during the electronic portfolio creation process that the system’s future users, potential benefits, and versatility be considered. Here at Del Mar there is a diverse population of students—on the road to achieving their dream. Creating and maintaining an e-Portfolio to highlight the educational endeavors would help more to students to achieve their dream of procuring a job in their chosen field.

An e-Portfolio program at Del Mar could be a “Personal Development Plan” (PDP) for students. Students will be able to document and reflect on transferable skills that four-year universities and employers are seeking in individuals. The Higher Education Academy emphasizes, “PDP embraces a range of approaches to learning that connect planning (an individual's goals and intentions for learning or achievement), doing (aligning actions to intentions), recording (thoughts, ideas, experiences, in order to understand and evidence the process and results of learning) and reflection (reviewing and evaluating experiences and the results of learning).” The American Association for Higher Education (AAHE) considers electronic portfolios as a powerful tool for teaching, learning and assessment and has been engaged in the work of creating e-Portfolios as alternative means of
assessing learning. The Association has produced a publication called ‘Electronic Portfolios: Emerging Practices for Students, Faculty, and Institutions’ (ed. Barbara L. Cambridge). In this publication over and over it is stressed that students are not making the connection between the academic world and the “real world.” So, when students leave the academic setting they seem under prepared for the opportunities that await them.

Currently the Stone Writing Center is (pre-) piloting an e-Portfolio program in select English 1301 One-Hour Writing Labs using WebCT. The goal of the Fall 2006 E-Portfolio Pre-Pilot Program was to gather a select group of Lab students and present them with the raw materials and guidance to construct a rudimentary electronic portfolio using an adaptation of the Student Presentations feature in Web CT. (See Appendix 2 for a screenshot of portfolio template used.) The students were asked to write about topics such as “about me”, academic goals, education, coursework, community involvement, and work history. Within the coursework area, students were able to upload and link examples of their work from their courses. They were also asked to explain why they were including the example or what this example showed about them as a student or member of a community. Students are creating an encapsulation of who they are, where they have been and where they are going, all the while showing how they are getting there. The Pre-Pilot group included two Dual-Credit English 1301 Online labs from Corpus Christi I.S.D. and Flour Bluff I.S.D., two English 1301 Online labs, and one Title V Clustered English 1301 Online lab. During Spring 2007, the program was broadened to include select on campus labs as well as online labs. Students were very receptive to the idea of creating a “virtual identity” to use as a résumé or use with a college application. Unfortunately, using WebCT for such a program is too restrictive and does not allow for outside viewing. Students have to download the files on a storage media and find other html editing software to add to their portfolio after the completion of English 1301. The One-Hour Writing Labs plan on furthering and expanding its use of e-Portfolios.

The evolution of an E-Portfolio Program must be a measured process, adding layers of complexity and capabilities as students and departments become more accustomed to its purpose and presence. What follows is a broad sketch of a multi-tiered approach to building the E-Portfolio Program. The e-Portfolios generated in any tier will aid in satisfying learning outcomes assessment and SACS accreditation requirements, but as the E-Portfolio Program evolves, e-Portfolios will contain more student-generated statements to address these two College priorities.

The first step in implementing an e-Portfolio Program would be to select a platform to use that is, first and foremost, user-friendly. The platform also needs to allow outside viewing over the Internet, with user permissions. The platform needs to be one that students can create and customize portfolios for academic, career, or personal uses; maintain their plan of study; and share their work, goals, and achievements with advisors, instructor, classmates, and employers. Faculty, departments, and the College need to be able to create e-Portfolio assignments linked to scoring rubrics. Assessment committees within department/disciplines could then randomly select portfolios, score the artifact with rubrics, and generate assessment reports. There are several types of platforms currently in use by other institutions that can be considered. Please see Appendix 3 for a list of some of the platforms available and a description of their capabilities. iWebfolio has many features available for use by
faculty and administrator to aid in the assessment process. Once a platform is selected and in place then the process of implementing a true e-Portfolio pilot program can begin starting with English 1301 One-Hour Writing Lab and then slowly incorporating all courses in the Core Curriculum (See Appendix 4 for list of core courses) and eventually branching out in to individual fields of study. When specifying the courses implementing the use of the e-Portfolio/PDP, it is up to the department or curriculum committee of that course to come up with the type of assignment that will be uploaded/presented in the e-Portfolio. It is also up to the department or curriculum committee of the course to provide a rubric in which to evaluate the artifact to ensure that learning outcomes are being met, if this artifact is being incorporated in Unit Plans.

**Tier 1 (Year 1)**

- All English 1301 One-Hour Writing Lab students will obtain platform logins and build a Lab E-Portfolio based on evaluation of the Stone Writing Center Pre-Pilot. Instruction that will be incorporated into the curriculum already in place will be: Explain the rationale for e-Portfolios. This could encompass the various purposes and benefits of a PDP, focusing on its importance to the students themselves, in terms of their personal, academic and future professional development; Provide students with clear directions and expectations for building their PDP; Inform the pupils on the standards to be met while building their eportfolio; Provide examples of portfolios and their related artifacts and reflections to illustrate the standards to be met; Explain the reflection process and how it will help identify their learning outcomes; Acquaint students with using the eportfolio system; Provide feedback (content, quality, depth, etc.) and suggest ways to improve their knowledge and skills.
- Possible implementation of e-Portfolio being used in conjunction with the Lab Project.
- The Stone Writing Center will host supplemental “help sessions” during the semester to address basics of file uploading, creating a back-up disk, and viewing classmates’ portfolios for peer review/editing.

**Tier 2 (Year 2)**

- English 1301 One-Hour Writing Labs will address more issues of audience and “virtual identity” maintenance in addition to basic user functions and purpose of the e-Portfolio.
- Begin implementation of Core Courses (15 total)
  - Communication
  - Additional Communication
  - History
- Stone Writing Center “help sessions” will expand to incorporate the needs of creating and maintaining a broader e-Portfolio including help sessions for any faculty interested.
**Tier 3 (Year 3)**

- English 1301 One–Hour Writing Lab will continue to address and promote the purpose of creating a PDP in addition to basic user functions.
- Continue implementation of Core Courses (15 total)
  - Mathematics
  - Natural Science
  - Government
- Stone Writing Center “help sessions” will expand to incorporate the needs of creating and maintaining a broader e-Portfolio including help sessions for any faculty interested.

**Tier 4 (Year 4)**

- English 1301 One–Hour Writing Lab will continue to address and promote the purpose of creating a PDP in addition to basic user functions.
- Continue implementation of Core Courses (15 total)
  - Humanities
  - Visual and Performing Arts
  - Social and Behavioral Sciences
  - Kinesiology
- Stone Writing Center “help sessions” will expand to incorporate the needs of creating and maintaining a broader e-Portfolio including help sessions for any faculty interested.

**Tier 5 (Year 5)**

- English 1301 One–Hour Writing Lab will continue to address and promote the purpose of creating a PDP in addition to basic user functions.
- Implementation of course of study courses (degree specific courses)
- Stone Writing Center “help sessions” will expand to incorporate the needs of creating and maintaining a broader e-Portfolio including help sessions for any faculty interested.
- Stone Writing Center “help sessions” will now incorporate all levels of creating and maintaining a curriculum-wide e-Portfolio, as well as help in creating course capstone statements and graduation synthesis statements.
Since the e-Portfolio proposed here is a Personal Development Plan (PDP), the learning outcomes that should be addressed are the skills that employers are looking for when hiring. These skills are also learning outcomes that can be addressed by instructors, departments, and the institution. The US Department of Labor lists these skills as the most important skills: **Written & Verbal Communication Skills**—Employers seek professional employees who are proficient communicators with the ability to write and speak comfortably in public. Students can develop strong communication skills by taking classes and incorporating other experiences that include writing projects and public speaking activities. Students can upload as artifacts into their PDP pieces of writing and videos of speeches to document these skills; **Problem Solving & Critical Thinking Skills**—Employers value new employees who have the ability to think on their feet, evaluate and organize information, solve problems and focus their thinking. Students can enhance these skills by taking classes and getting involved in projects that allow them to exercise critical judgment, acquire and evaluate information, make decisions and solve problems. Students can upload as artifacts into their PDP Lab Reports from a science course, a case study, or critical analysis of a historical event or current event; **Leadership Skills**—Employers seek students who can demonstrate leadership both on and off campus. Community activities, class work, as well as jobs and internships provide excellent opportunities to take charge of a project or activity and therefore develop leadership skills; **Teamwork Skills**—All work environments require the ability to work with others and be a part of a team. Employers look for new hires to be able to fit into their system and be an active team member. Students can articulate their ability to be part of a team by showcasing a group project and reflecting on the process of working together to create the project; **Technology Skills**—Employers expect college students to be familiar with standard business computer applications including word processing, spreadsheets, data management, and presentation software. Students can increase their computer/technical skills in classes, workshops, and experiences that focus on applying technology and learning software programs. And, creating a PDP is one way of showing all the technical skills students have. Helping students to be prepared for what is beyond Del Mar College is helping students achieve their dream. "Because electronic portfolios are persistent, owner-controlled and work-centric, they offer new opportunities for assessing achievement and learning outcomes over time. In place of a final product submitted on a due date, an electronic portfolio can present the evolution of work in response to interactions with instructors, mentors and classmates. This student-centered, outcome-orientated approach should provide new models for improving student learning and achievement." (eportconsortium.org)

As to a budget, at this time it is hard to know exactly what having such a program in place might warrant. There is the cost of the platform and its associated fees. Something that only August Alfonso could articulate and know what platform, technically speaking, would be the best choice. As for staffing, the additional position of one Assistant Instructor to help with additional training manuals and “help sessions” for students and interested faculty would need to be created. The creation of an e-Portfolio Consultant/Assistant (part-time employee) would also aid in the ease of implementing such a program since there is much more research, data and semester reports to compile on such a project. As the program expands there may be need for
additional adjunct personnel to staff the One-Hour Writing Labs to teach and introduce the e-Portfolio. As the program
develops, the need for additional support staff and funds may be required.

Evaluation Plan

Tier 1—At the end of semester, the students and faculty will be asked to fill out a survey. The data will be compiled and
analyzed to determine the effectiveness the program. This will also give the instructors introducing the e-Portfolio (PDP) an
opportunity to identify areas of improvement. This will also allow for the creation of the Writing Center “help sessions” that will
address the areas of concerns expressed by students and faculty.

Tier 2 and beyond—With the implementation of core curriculum courses requiring students to upload artifacts to their
PDP, along with the above mentioned evaluation process, rubrics can be put in place using the e-Portfolio platform to evaluate
for learning outcomes related to the courses. These can be outcomes set by the department unit plans or the generic outcomes
listed above. (This can be decided at a later date with the consensus of participating faculty.)
References


American Association of Higher Education. Available at http://www.aahperd.org/aahe/.


Types of e-Portfolios

When talking about the use of e-portfolios, it has become extremely important to mention the type and the purpose that the portfolio is used for, otherwise the discussion might start with wrong premises. Find here explanations of four most common types of portfolios, these are also used to classify the e-portfolio scenarios.

Assessment portfolios

Portfolios used for assessment purposes only are usually organized around items such as the candidates’ products, evaluations, photographs and video-recordings. Assessments in which portfolios are used differ from other assessments because candidates are not tested but are asked to prove their competence. To be convincing they must include information such as employers’ or supervisors’ evaluations and certain key products. To guarantee that candidates provide assessors with all the necessary information, a list may be supplied containing items required for inclusion in the portfolio. Occasionally, students even receive directions about how to present these items.

Showcase portfolios

When persons compiling a portfolio are free to determine the content of their portfolios, they most often tend to display examples of their best work or evaluations of that work. Such portfolios are usually referred to as showcase portfolios and resemble those compiled by artists and architects. The owner of the portfolio sometimes uses captions to indicate the provenance of items and the reasons for their inclusion. A logical portfolio structure is one that emulates that of a curriculum vitae. Showcase portfolios may be used for a number of purposes, such as introducing oneself to potential employers, presenting to a review committee or sponsor, etc.

Development portfolios

A portfolio may also be designed as an instrument to keep track of and plan the owner’s development. In such a case it is referred to as a development portfolio. The term Personal Development Plan is also frequently used. The point of departure here could be a summary of what the owner should master in order to be certified. Such a portfolio might be formatted in a table with columns. The owner can then use rows to note work done on specific competences, the results of such work, and the planned nature and direction of further development. Obviously the use of development portfolios only makes sense where there is room for individual development. If for instance students all take the same courses, try to achieve the same goals and are tested in the same way, more efficient systems than a development portfolio are available for tracking and planning their development.

Reflective portfolios

When portfolios are used for the purposes of monitoring the owners’ development, it is important to know how he evaluates and analyses himself. Therefore it is crucial that portfolios used in this way contain written reflections by the owner. These reflections are usually organized around the competences the owner should master. Portfolio-owners are asked to reflect in their portfolio on how their accomplishments relate to their goals using for instance a Strengths – Weaknesses – Opportunities –Threats (SWOT) type of analyses.

Combinations

Portfolios are usually used for a combination of different purposes and combine characteristics of each of the typical portfolios described above. For example, when portfolios are used in a medical school or teacher training department, more is required than simply asking students to reflect on their development. Their reflections may be linked to a Personal Development Plan, enabling the supervisor to relate the reflections in question to a student’s particular phase of development. Furthermore, students are generally asked to underpin their analyses with various kinds of materials (evaluations, work sheets, products) with the aim of validating them and facilitating assessment. Assessment also ensures that students and coaches take working with a portfolio seriously.

Taken from http://insight.eun.org/ww/en/pub/insight/school_innovation/eportfolio_scenarios/portfolios_types.htm
Appendix 2

Template of e-Portfolio

Type Your Name Here

About Me

Type a short bio. Be sure not to get too personal. Remember this is could be read by more than just classmates.
## Appendix 3

### e-Portfolio Platforms

<table>
<thead>
<tr>
<th>Software</th>
<th>Clients</th>
<th>Type/Use</th>
<th>Brief Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>iWebfolio/TracDat Nuventive</td>
<td>Several universities and colleges including University of Houston, Western Michigan University, Providence College, Plymouth State University</td>
<td>developmental assessment showcase</td>
<td>Provides users with personalized, flexible online portfolio to store and present a lifetime's worth of educational and professional experience. Also helps faculty members, departments, and schools meet institutional and accrediting goals, review student work, and provide feedback.</td>
<td>Pricing is per student account or institution/ August Alfonso has the cost</td>
</tr>
<tr>
<td>Personal Learning Plan</td>
<td>Several universities and colleges including University of Colorado at Denver</td>
<td>primarily developed for the purpose of development and assessment, but does include showcase feature</td>
<td>The Personal Learning Plan (PLP) is a structured process for building educational decisions and plans upon the strengths, interests and aspirations of the learner. It provides students, as well as other stakeholders, with the opportunity to submit and examine goals and artifacts as evidence for learning.</td>
<td>currently in beta-test stage, costs are not currently available</td>
</tr>
<tr>
<td>Interfolio</td>
<td>Cornell University University of Virginia University of Chicago Rutgers University National Communications Association</td>
<td>Showcase-created with purpose of sending documents/ transcripts no assessment connections</td>
<td>Manages credential files (send academic credentials to a search committee, a teaching portfolio to a hiring district, or an application for admittance to a graduate school). Helps manage the paper processing demands of receiving, managing, and distributing credential files.</td>
<td>Charges &quot;student&quot; account holders $12 annual setup and $5 mailing fee Also works with career centers and receiving institutions.</td>
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<tr>
<td>FolioLive</td>
<td>Used by Pittsburgh State University- two templates have been developed by College of Education.</td>
<td>Assessment-students can organize portfolio around any set of standards</td>
<td>McGraw-Hill Customized portfolios hosted on McGraw-Hill server. Faculty may require it as part of the textbook purchase.</td>
<td>No pricing information available on website, discount available if student purchases portfolio as part of the textbook bundle.</td>
</tr>
<tr>
<td>ePortaro</td>
<td>Unknown</td>
<td>showcase</td>
<td>ePortaro helps students, faculty, staff, recruiters, and employers collaborate.</td>
<td>pricing information not available on website</td>
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<td>TaskStream's Web Folio Builder</td>
<td>Unknown</td>
<td>developmental assessment showcase</td>
<td>Web-based suite of tools for curriculum design, electronic portfolios, faculty/student mentoring, and course management. Instructors/students create own portfolio or use set templates for organizing resources. standards primary market: teacher ed programs</td>
<td>Web Folio Builder is marketed to individuals. Pricing is $20 per semester or $40 per year per person, group rates are also available.</td>
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<tr>
<td>Open Source Portfolio Initiative</td>
<td>University of Minnesota</td>
<td>developmental showcase</td>
<td>The Open Source Portfolio Initiative (OSPI) is a collaborative, open source software development project based on the University of Minnesota's electronic portfolio (ePortfolio) software. The University of Minnesota, The University of Delaware, and The RSmart Group, are the founding members of this collaborative alliance.</td>
<td>It is free to join OSPI and the source code can be downloaded to the ePortfolio for free. If you don't need any further assistance, then the costs are your internal support costs.</td>
</tr>
<tr>
<td>ePortConsortium</td>
<td>UUPP includes: Indiana University Purdue University Indianapolis, California State University, Georgia State University, Portland State University, University of Illinois at Chicago, University of Massachusetts Boston</td>
<td>developmental assessment showcase</td>
<td>Electronic Portfolio Consortium (ePortConsortium) is the collaboration of select higher education institutions working to define, design, and develop an interoperable and transportable electronic portfolios system.</td>
<td>Members pay $10,000 per year to participate.</td>
</tr>
</tbody>
</table>
| TrueOutcomes | University of Akron  
Bradley University  
City Colleges of Chicago  
Cal Polytechnic Pomona  
George Mason  
Houghton College  
Northern Kentucky U  
of Rhode Island (CELS and ELE)  
Sinclair CC  
Southwest Missouri University of Texas  
Villanova University  
York College of Pennsylvania | developmental assessment showcase | Provides a universal assessment solution, linking administrators, faculty, students, alumni, and external stakeholders through flexible assessment instruments. Includes a student-driven Professional Portfolio, a faculty-controlled Juried Portfolio, a Curriculum Record, and a survey instrument. This software is specifically designed for course/program/institution assessment. | pricing information not available on website |
Texas General Education Core Curriculum

Del Mar College-March 2007

10 - Communication (2 courses) 6 credit hours

- English 1301 - Composition I
- English 1302 - Composition II

11 - Additional Communication (1 course) 3 credit hours

- Speech 1311 - Introduction to Speech Communication
- Speech 1315 - Fundamentals of Public Speaking
- Speech 1321 - Business & Professional Communication

20 - Mathematics (1 course) 3 credit hours

- Math 1314 - College Algebra
- Math 1316 - Trigonometry
- Math 1324 - Pre-Calculus Mathematics for Business, Economics & Education
- Math 1325 - Calculus for Business & Economics
- Math 1332 - College Mathematics
- Math 1342 - Elementary Statistical Methods
- Math 2312 - Elementary Functions
- Math 2313 - Calculus I
- Math 2314 - Calculus II
- Math 2315 - Calculus III
- Math 2316 - Calculus IV
- Math 2318 - Linear Algebra
- Math 2320 - Differential Equations
- Math 2342 - Statistical Methods & Probability

30 - Natural Science (2 courses) 8 credit hours

- Biology 1406 - Biological Concepts I
- Biology 1407 - Biological Concepts II
- Biology 1308/1108 - General Biology, Fundamentals of Cell Biology
- Biology 1309/1109 - General Biology, Diversity & Environment
- Biology 1411 - General Botany
- Biology 1413 - General Zoology
- Biology 2306/2106 - Environmental Biology
- Biology 2401 - Human Anatomy & Physiology I
- Biology 2402 - Human Anatomy & Physiology II
- Chemistry 1405 - Introduction to Chemistry I
- Chemistry 1407 - Introduction to Chemistry II
- Chemistry 1411 - General Inorganic Chemistry I
- Chemistry 1412 - General Inorganic Chemistry II
- Geology 1303/1103 - Physical Geology
- Geology 1404 - Earth History
- Geology 1447 - Meteorology
- Physics 1305/1105 - Introductory Physics I
- Physics 1310 - Elementary Physics
- Physics 1311 - Introductory Astronomy
- Physics 1401 - General Physics I
- Physics 1402 - General Physics II
- Physics 1407 - Introductory Physics II
- Physics 2425 - Mechanics
- Physics 2426 - Electricity, Magnetism & Introduction to Optics

40 - Humanities (1 course) 3 credit hours

- English 2321 - British Literature
- English 2322 - British Literature I: Beginnings-18th Century
- English 2323 - British Literature II: 19th & 20th Centuries
- English 2326 - American Literature
- English 2327 - American Literature I: Beginnings-1865
- English 2328 - American Literature II: 1865-Present
- English 2332 - World Literature I
- English 2333 - World Literature II
- English 2375 - Portrayal of Women in Literature

50 - Visual and Performing Arts (1 course) 3 credit hours

- Arts 1301 - Art Appreciation
- Arts 1303 - Art History I
- Arts 1304 - Art History II
- Arts 1311 - Design I
- Arts 1312 - Design II
- Arts 1316 - Drawing I
- Arts 1317 - Drawing II
- Arts 1325 - Drawing & Painting for Nonmajors
- Arts 2316 - Painting
- Arts 2326 - Sculpture
- Arts 2333 - Printmaking I
- Arts 2346 - Ceramics I
- Arts 2356 - Photography I
- Dance 2303 - Dance Appreciation
- Drama 1310 - Introduction to Theatre
- Drama 1351 - Acting I
- Drama 2361 - History of Theatre
- Drama 2363 - History of Musical Theatre
- Drama 2366 - Development of the Motion Picture I
- Drama 2367 - Development of the Motion Picture II
- Humanities 1301 - Introduction to the Humanities
- Music 1306 - Music Appreciation
- Music 1308 - Introduction to Music Literature
- Music 1311 - Jazz History
- Music 1372 - Fundamentals of Music
- Music 2370 - Music & Movement in Early Childhood

60 - History (2 courses) 6 credit hours

- History 1301 - United States History I
- History 1302 - United States History II
- or History 2301 - Texas History

Continued on next page
70 - Government (2 courses) 6 credit hours

Government 2301 - American Government I: Federal & Texas Constitutions
Government 2302 - American Government II: Federal & Texas Topics

80 - Social and Behavioral Sciences (1 course) 3 credit hours

Anthropology 2346 - Introduction to Anthropology
Economics 2301 - Principles of Macroeconomics
Economics 2302 - Principles of Microeconomics
Geography 1301 - Physical Geography
Geography 1302 - Cultural Geography
Geography 1303 - World Regional Geography
History 1301 - United States History I
History 1302 - United States History II
History 2301 - History of Texas
History 2311 - Western Civilization I
History 2312 - Western Civilization II
Psychology 2301 - General Psychology
Sociology 1301 - Introduction to Sociology
Sociology 1306 - Social Problems

90 - Institutionally Designated Option  2 credit hours

Any 2 activity courses from Kinesiology 1100-1151, 2100-2149.

43 total credit hours