



## INCEPR Final Report

### Project Overview

George Mason University's INCEPR research team includes faculty and student affairs professionals. Our initial research question grew out of team members' early discussions about students' identities and how they might shift and change as a result of their participation in portfolio work that intentionally invites the inclusion of curricular and co-curricular learning and experiences. From these conversations, leadership emerged as an potential area of focus, as students are engaged in leadership study and practice through their academic, campus, and community work. Specifically, our team was informed by the processes by which students come to a relational view of leadership and the formation of a leadership identity (Komives, Owen, Longerbeam, Mainella, & Osteen, 2005). Our initial research question was "How does an examination of co-curricular and curricular learning and their relationships through eportfolios contribute to students' developing understandings of practices of leadership?"

In Spring 2007, our first ePortfolio implementation to examine this question was through a co-curricular program with invited participants ranging from first-year undergraduates to advanced post-graduates. We facilitated several day-long face-to-face sessions that examined leadership, reflective practice, and use of evidence in constructing eportfolios. Our expectation was that students would participate in a semester-long process of collecting evidence and reflections related to their leadership in a variety of contexts. We anticipated that the experience of composing a leadership portfolio would help students develop a stronger identity as a leader, enabling them to make more strategic choices about future involvement. Due to technical issues with our software and limited support/incentive for participation in the project, we experienced a high rate of attrition, resulting in only a handful of functioning portfolios to examine in our first round of content analysis.

Prior to this experience, the faculty involved in this project had worked with portfolios primarily in course contexts and found that students largely identified academic work as evidence of their learning. Through the portfolio workshops, the team made a concerted effort not to privilege academic over co-curricular experiences, working with the students to identify the range of possible evidence that could demonstrate their learning. During a particular workshop on evidence, students expressed considerable energy and enthusiasm in the potential array of artifacts. Perhaps as a result of our emphasis on co-curricular learning, we saw little inclusion of academic work in student portfolios. The theme of leadership may have also contributed to students primarily identifying experiences outside of courses since they may not think of themselves as leaders in the classroom. Examples of leadership that students included were frequently linked to their community service involvement, with students self-identifying

as change agents, if not leaders. In reflections upon academic work, students frequently cited their success as a demonstration of their leadership character, though most often without the inclusion of any evidence from courses. This first examination of data raised new questions about the use of evidence, which seemed more complicated than we anticipated, and also about context, which appeared to be a significant driver in what students think about as they make choices about what to include in their portfolios.

In our next iteration of the project, Spring 2008, we decided to implement eportfolios in a curricular context to both advance our inquiry on evidence and context and eliminate some of the challenges we experienced in the first implementation related to support/incentive. We identified two faculty partners to implement eportfolios and reflection on leadership in two classes: an introduction to leadership course taught by student affairs professionals and a capstone course that is a required part of New Century College's curriculum. We revised our research questions slightly in light of this change to "How does leadership develop in two very different curricular contexts?" and "How do students integrate the academic and co-curricular in eportfolios?" Moreover, we chose a new ePortfolio system, PebblePad, that proved to be both more reliable and flexible in meeting students' creative needs. Faculty in both of the courses revised their guidelines and assignments with input of the research team, who served as guest facilitators to introduce Pebblepad to their students. Though the capstone course's portfolio assignment did not explicitly cite leadership as an area of focus, a central question connected to our team's understanding of leadership was offered as a key organizing principle of the assignment, "How does your education equip you to create change in the world?"

A close examination of the portfolios that resulted from these two courses challenged our thinking further about evidence and informed yet another revision of our research question, "How does the use of evidence in student portfolios drawn from multiple contexts vary, and how can a systematic description of the variations guide pedagogy, evaluation and future research?" As we considered the use of evidence in the student portfolios, we observed patterns that resulted in our development of a typology of evidence.

### **An Emergent Typology of Evidence**

We have analyzed the spring 2008 sample and, while we are unable to make generalizable claims from this data, meaningful patterns have emerged relating to student use of evidence. Of the few portfolios that we have been able to analyze in detail, we have noticed emerging patterns in the way unique individuals in diverse contexts are making use of a range of evidence. The preliminary results from this study, based on content analysis of the students' portfolios, provide insight into the range of ways evidence is used. Despite the central role of evidence in ePortfolio practice, the dynamics of its use by portfolio authors is under-examined. The role of evidence is often assumed uniform: artifacts produced by the author (or assertions about them) are connected to a competency the author claims they possess, and the evidence is either sufficient or insufficient. In fact, our research suggests that the actual use of evidence in eportfolios is much more complex (Cambridge, Owen, Smith, Blank-Godlove, Danner, Eby, & Hare, 2008, *under review*).

Dimensions	Frames
<b>Characteristics of item used as evidence</b>	<p><b>Agency</b></p> <ul style="list-style-type: none"> <li>• Self-authored</li> <li>• Collaboratively authored (portfolio author and associates)</li> <li>• Other-authored</li> </ul> <p><b>Media</b></p> <ul style="list-style-type: none"> <li>• Media and modality of evidence (e.g., text, audio, image, streaming video, multimedia, etc.)</li> </ul>
<b>Purpose of incorporating evidence</b>	<p><b>Rhetorical Function</b></p> <ul style="list-style-type: none"> <li>• Intended (or deduced) function of the evidence (e.g., demonstrates or symbolizes)</li> </ul> <p><b>Object</b></p> <ul style="list-style-type: none"> <li>• Evidence reflects author’s knowledge, skills, character traits, beliefs, goals, or identifications</li> </ul>
<b>Characteristics of associated learning activity</b>	<p><b>Sponsorship</b> The activity is:</p> <ul style="list-style-type: none"> <li>• Institutionally sponsored (curricular, co-curricular, community organizations, etc.)</li> <li>• Self-sponsored</li> <li>• Un-sponsored</li> </ul> <p><b>Participation</b> Evidence indicates:</p> <ul style="list-style-type: none"> <li>• Individual participation</li> <li>• Group activity</li> <li>• Larger community/associational activity</li> </ul>

**Table 1: An Emergent Typology of the Use of Evidence in Eportfolios**

The emergent typology varies along three dimensions which examine distinct characteristics and purposes of the use of evidence in eportfolios. These include: 1) the characteristics of the item used as evidence; 2) the explicit or deduced purpose of the portfolio creator in incorporating the selected evidence; and 3) the characteristics of the learning activity reflected in the use of evidence. Within each dimension we have identified two frames which help to discriminate between and among different types of evidence.

When examining the characteristics of the item used as evidence, *agency* describes who created the evidence. Items may be self-authored, the individual work of the portfolio author; collaboratively authored, the product of a joint effort between the portfolio author and associates; or other-authored, the work of someone other than the portfolio author. A second frame describing the characteristics of an item used as evidence is *media*. Media refers to the format of the evidence, such as audio, video, text, and may include documents, podcasts, blogs, multimedia, streaming video, photos, playlists, scanned artifacts, wikis, and others.

The second overarching dimension examines why the portfolio creator incorporated the evidence. This purpose dimension includes both the intended *rhetorical function* of a piece of evidence and the *object* of its use. Rhetorical function refers to the choice driving a portfolio author’s use of a piece of evidence. One can explore, for example, whether the portfolio author includes a piece of evidence as an attempt to describe, compare, explain, symbolize or summarize. The object frame identifies whether a portfolio author includes a piece of evidence in relationship to knowledge, skills, character attributes, or some other aspect of learning or

identity. It might be helpful to think of the rhetorical function as the verb and the object as the object of a sentence describing the purpose of incorporating the evidence into the portfolio. For example, evidence may be intended to elucidate (function) the author's identity (object), present (function) goals (object), demonstrate (function) skills or abilities (object), or celebrate (function) achievements (object).

The third dimension of the typology examines the characteristics of the learning activity associated with a piece of evidence. Learning activities vary both in who sponsors the activity and who participates in the activity. *Sponsorship* examines whether presented evidence originates from institution-sponsored, self-sponsored, or unsponsored activities. Sponsored activities are those intended to promote learning, while learning is a serendipitous, and sometimes quite powerful, side effect of unsponsored activities. In a higher education setting, institution-sponsored activity can be curricular, co-curricular, or extra-curricular. *Participation* analyzes whether the author participated in the learning activities associated with the evidence as an individual, as part of a small group, or as part of a larger community or associational effort.

In considering the effects of curricular and co-curricular experiences on student learning, George Mason's research team played close attention to the third frame, *sponsorship* of learning activity. Our hypothesis is that sponsored activities can provide greater access to faculty, administrator, and peer mentoring, along with enhanced feedback and evaluation functions, resulting in more sophisticated uses of evidence indicative of deeper student learning. The third dimension examines whether presented evidence originates from institution-sponsored, self-sponsored, or unsponsored activities.

Being able to discuss types and usage of evidence along these dimensions will allow more sophisticated examination of how portfolio-based evidence demonstrates and evokes integration, learning, and engagement. More importantly, it will help educators guide learners in using evidence more intentionally and effectively in their portfolios.

More research is needed to make strong claims about the effectiveness of strategies for using these frames together. However, our analysis so far suggests some patterns. The most effective portfolios embrace the opportunity for multiplicity offered by each frame through strategies such as presenting both accomplishments and development (object), including both artifacts produced by learning activities and more symbolic multimedia (function) and spanning the boundaries of academic and co-curricular experiences (sponsorship). The use of evidence, considered from the perspective of each frame, also is chosen to align with the needs of their audience. Links are used to provide context that engages the audience in a dialogue and connects to a wider framework of knowledge. Finally, there is a match between the content of the evidence and the way it is framed in the reflective narrative of the eportfolio.

## **Dissemination & Impact**

### **Presentations and Publications of Research**

To date, we have disseminated our work through two articles, a package of software components, and multiple conference presentations and workshops.

### Articles:

Cambridge, D., Owen, J., Smith, L., Blank-Godlove, J., Danner, K., Eby, K., & Hare, H. "Framing the Use of Evidence in eportfolios: An Emergent Typology." Submitted to *Computers & Composition* in December, 2008.

This article presents a detailed explanation of our typology, situating it in relationship to other research in the field and applying it in detail to examples of evidence use in three student portfolios.

Cambridge, D., Fernandez, L., Kahn, S., Kirkpartick, J., & Smith, J. (2008). The impact of the Open Source Portfolio on learning and assessment. *Journal of Online Learning and Teaching*, 4(4): 490-502. Retrieved February 16, 2009 from [http://jolt.merlot.org/vol4no4/cambridge\\_1208.htm](http://jolt.merlot.org/vol4no4/cambridge_1208.htm)

This article reports preliminary research results and compares them with research results from other projects that have used the Open Source Portfolio software. It argues that the articulation of leadership identity captured through the student portfolios created during the first iteration of our project is an example of matrix thinking.

### Software:

George Mason University. (2008, February). Lives we lead: Leadership portfolios. *OpenEd Practices*. Retrieve February 16, 2009 from <http://openedpractices.org/practice/lives-we-lead-leadership-portfolios>

A package of Open Source Portfolio components (XML forms, wizards, and templates) along with supporting handouts used in the first iteration of our project that can be used to guide students through a sequenced process of reflecting on and composing portfolios about their leadership identity development. Includes 60+ prompts for reflective writing that draw on the social change model of leadership. The content was composed by our full team and the technical components were written by Darren Cambridge.

### Workshops:

Danner, K., Blank-Godlove, J., Eby, K., Owen, J., & Pascarell, R. (2009, March). Lifelong learning documented: An introduction to collaborative partnerships through electronic portfolios. Pre-conference workshop presented at the National Association for Student Personnel Administrators, Seattle, Washington.

Smith, L. & Cambridge, D. (2008, October). Crossing institutional boundaries: Co-curricular partnerships in SOTL. Workshop presented at the International Society for the Scholarship of Teaching and Learning, Edmonton, Alberta, Canada.

### Presentations:

Smith, L. & Cambridge, D. (2009, January). The use of evidence in electronic portfolios: A typology. Paper presentation at Praxis, Pedagogy, People, Washington, DC.

Cambridge, D. (2008, October). An emergent typology of use of evidence in eportfolios. Paper presented at ePortfolio 2008, Maastricht, Netherlands

Owen, J., Eby, K., & Cambridge, D. (2008, July). An emergent typology of use of evidence in eportfolios. Paper presented at ePortfolio Conference 2008, Waterloo, Ontario, Canada.

Cambridge, D. (2007, December). Leadership, integration, and assessment. Paper presented at the Sakai Conference, Newport Beach, CA.

Cambridge, D. (2007, June). eportfolios for leadership identity development with OSP: Some preliminary findings. Paper presented at Sakai Conference with OSP, Amsterdam, Netherlands. Although different members of the team have taken the lead writing and presenting, each of these articles, presentations, and workshops reflects the contributions of our entire team. Slides for many of the presentations and workshops are available on Darren Cambridge's website at <http://ncepr.org/darren/>.

### **Learning in Practice**

There are numerous ways in which our collaboration and participation in this project have impacted and transformed team members practice. The following list captures some of the ways that Mason INCEPR Cohort 3 Team members are currently applying the results of our research.

#### Fluency in Leadership Education Development/ A New Community of Practice Around Leadership

- Faculty who had not previously been formally involved in leadership development express a new understanding of leadership in general, and their role in promoting student leadership development specifically and student engagement for change more generally.
- Faculty stated more comfort using the language of leadership to talk about student experiences, reflecting a shift in understanding from leadership as a role or status of exceptional individuals, to the perspective that all people have the potential to develop leadership skills and practices.

#### New Uses of Eportfolio

- Faculty heavily invested in the use of eportfolios in their classes were able to re-envision the potential range and depth of application. In addition, this work has resulted in broader consideration about necessary stake holders.
- One member of our team who had not previously used eportfolios in her leadership course significantly revised her assignments to include a series of reflection and portfolio building throughout the semester.
- University Life is considering the potential that could result from incorporating portfolios for student leaders across the division including Resident Assistants, Orientation Leaders, and the Program Board.

## Challenges and Rewards of Working Across Boundaries

- Our team's work represents both extensions of earlier relationships and new efforts. A strength of Mason's campus culture is a commitment to collaboration between faculty and student affairs staff. University Life and New Century College (NCC) have a history of collaborative work and this project has affirmed this relationship.
- Our teams work process reflects our interest in learning from one another, honoring each others' expertise, and sharing responsibility for project development and implementation.
- We have made a concerted effort not to privilege academic over co-curricular experiences in our approach to portfolio creation.
- There have been changes in the composition of our project team since we began our work. Some of this is due to unclear expectations, communication lapses, and conflicting priorities; thus, attention to team composition, responsibilities, and the nature of the collaboration are important to establish at the outset.
- We experienced challenges common among a group of professionals with diverse roles.
- A consensus across the team is that collaborative learning has been valuable in and of itself.

## Clarified and New Understanding Of Reflective Practice

- Coming together around these shared interests has increased our understanding of how curricular and co-curricular experiences influence student leadership development, as well as the potential of reflective practice to promote and integrate student learning across curricular and co-curricular boundaries.
- We developed a series of handouts that many team members continue to utilize in other venues (e.g., a series of reflective prompts, a guide to foster student reflection, etc.).
- We were intentional about our discussion questions and the ways that we worked to create meaning for our participants, many of those tools and techniques will carry forward.
- Reflection doesn't happen in a vacuum; students need an audience and feedback in order for their eportfolio practice to generate the results and habits of mind we wish to establish.

## Future Research/Writing

It is our intent that George Mason's collaborative partnerships around eportfolios will continue beyond the formal INCEPR cohort process. Some possibilities for future projects include:

### *Documenting Collaborative Partnerships*

We have had significant learning around the benefits and challenges of partnering across institutional units and boundaries. Our institution's efforts to transform our campus culture to value and model socially responsible leadership development and eportfolio reflective practice have been challenging and rewarding. We hope to formally document key learning from our work cultivating partnerships across and beyond campus in order to construct a transparent public leadership identity that builds on a diverse set of core values, assumptions, and competencies. We are still committed to the goal of inculcating purposeful and intentional leadership development opportunities that are grounded in academic and practical knowledge.

### *Portfolios and Leadership Identity Development (LID)*

Another area for future research is to return to our project's original aim of utilizing portfolios to assess students leadership identity development. Portfolios and other formative types of assessment can be used by leadership educators to more accurately illuminate the stages and transitions of student leadership development. With a clearer understanding of where students are in their journey toward a relational leadership identity development, we as educators can work to intentionally encourage processes that promote increasingly complex leadership identities.

### *Longitudinal Study of NCC Portfolio Composition*

In developing students as reflective thinkers able to evidence their capacities in tangible ways readable to multiple potential audiences, our research suggests the mentoring of students through the portfolio composition process, especially in its initial developmental stages, might profitably aim for continuity. Thus one further area for research might involve a longitudinal comparison of the portfolios of two groups who begin together as first-year students in NCC. While each student in the first group worked with a single mentor/evaluator across the first year, each student in the second group would work with different mentors/evaluators across the first year, depending upon courses chosen and routes to portfolio composition offered in those courses. The research would then analyze the portfolios of both groups at the end of the first-year and at graduation, to interrogate the potential value of each pattern of mentorship and develop the most supportive environment for successful e-portfolio composition.

### **E-Portfolio Project Team**

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