# ePortfolios and Online Learning:
# Applying Concepts of Organizational Behavior

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**Abstract:** Higher education faculty are redesigning student learning experiences to expand opportunities for application of learning. They are also emphasizing the development of cross-cutting learning outcomes valued by employers (e.g., communication, critical thinking, teamwork) and measuring learning in more authentic ways. An increasingly common platform for these engaged learning experiences is the ePortfolio, which entails students creating and compiling artifacts that represent their learning, accompanied by reflections about what and how they learned. This qualitative study explores the student learning outcomes of a team ePortfolio assignment in face-to-face and online sections of an organizational behavior course. The purpose of the assignment was to help students demonstrate their learning and apply organizational behavior concepts such as communication, conflict resolution, appreciation for diversity, and teamwork. Students reviewed and commented on other teams' ePortfolios and wrote reflections about their learning in the course. Findings indicate that students exhibited learning outcomes reflecting UNESCO's four pillars of learning: learning to know, learning to do, learning to live with others, and learning to be.

**Keywords:** ePortfolio, high impact practice, learning outcomes, organizational behavior, schools of business.

**Résumé :** Dans l'enseignement supérieur, les professeurs cherchent à reconfigurer les expériences d'apprentissage des étudiants afin d'élargir leurs opportunités d'apprentissage. Ils travaillent également au renforcement du développement des compétences transversales valorisées par les employeurs (par exemple, la communication, la pensée critique, le travail d'équipe) et tendent à évaluer l'apprentissage de manières plus authentiques. Un environnement de plus en plus couramment utilisé pour ces expériences d'apprentissage engagé est le portfolio électronique, qui amène les étudiants à créer et compiler des artefacts qui représentent leurs apprentissages, accompagnés de réflexions sur ce qu'ils ont appris et sur la manière dont ils ont appris. Cette étude qualitative explore les résultats d'apprentissage d'étudiants auxquels il était demandé de travailler en équipe avec le portfolio électronique sur des sections en face-à-face et en ligne d'un cours sur le comportement organisationnel. L'objectif était d'aider les étudiants à faire la démonstration de leurs apprentissages et d'appliquer les concepts de comportement organisationnel tels que la communication, la résolution de conflit, l'appréciation de la diversité et le travail d'équipe. Les

étudiants ont examiné et commenté les portfolios électroniques des autres équipes et écrit des réflexions sur leur apprentissage dans le cours. Les résultats indiquent que les étudiants ont fait preuve d'apprentissage dans quatre domaines : apprendre à savoir, apprendre à faire, apprendre à vivre avec les autres, et apprendre à être.

**Mots clés :** portfolio électronique, pratique à fort impact, résultats d'apprentissage, comportement organisationnel

## ePortfolios and Online Learning: Applying Concepts of Organizational Behavior

Innovators, problem-solvers, and communicators are highly valued in today's rapidly changing world. These abilities are increasingly emphasized in institutions of higher education due to recognition that job-specific training is quickly outdated. Although estimates of the number of job changes one might have in a lifetime may be exaggerated (Young, 2017), few jobs are likely to be stagnant in terms of the need for new technology, skill, and knowledge.

Thus, a strong case exists for a liberal education, or "an approach to learning that empowers individuals and prepares them to deal with complexity, diversity, and change" (Association of American Colleges & Schools, [AAC&U], n. d.). This includes skills relevant across areas of study, such as team work, communication, critical thinking, and ethical decision-making, in addition to in-depth study of a particular field (AAC&U, 2011, 2015). Employers highly value these cross-cutting skills, which they believe are critical to professional success, but find that college graduates lack preparation in this area (Hart Research Associates, 2015; Schneider, 2015).

To address this, higher education faculty are redesigning student learning experiences to expand opportunities for the development of cross-cutting learning outcomes valued by employers and measuring student learning in more authentic ways. An increasingly common platform for assessment is the ePortfolio, which entails students creating and compiling artifacts that represent their learning, accompanied by reflections about what and how they learned (Cambridge, 2010; Miller & Morgaine, 2009). ePortfolios may involve students making connections across courses in addition to providing evidence for how they have met outcomes in a specific course. They integrate learning and assessment to encourage students to explore, apply, reflect, connect, and deepen their learning.

This qualitative study explores the outcomes of student ePortfolios in two sections of a business management course—introduction to organizational behavior. One section was an online course in which students collaborated remotely using digital tools and the other was a face-to-face course in which students collaborated in person. The ePortfolios were created in teams rather than individually. In both cases, students reviewed and commented on other teams' ePortfolios and wrote reflections about their learning experiences.

The rationale for team ePortfolios was to help students learn to collaborate and to be effective team members. The assignment also gave students autonomy over how to demonstrate their learning, as opposed to traditional teacher-centered testing, and the opportunity to develop skills in resolving conflict, avoiding groupthink, understanding diversity and personality differences, and developing effective communication and conflict management skills—all topics in the organizational behavior course and skills valued by future employers (Hart Research Associates, 2015).

Although ePortfolios can be used as a means of assessment for group projects where students reflect on their participation, show evidence of their contributions, and describe their learning about teamwork (Housego & Parker, 2009)—few have implemented team ePortfolios in which students discuss topics, create artifacts, assign roles and tasks, reflect on their artifacts, evaluate their teamwork skills, and set goals for improvement. This study expands current knowledge by exploring the impact of an innovative teaching practice, one that involves high impact practices (HIPs) (ePortfolios), and which incorporates face-to-face and virtual teamwork. The innovation also explores other elements of HIPs such as reflection, writing, collaborative assignments, and experiences with diversity. In sum, the area of investigation is: What is the impact of team ePortfolios on learning outcomes in face-to-face and online course delivery modalities?

## Literature Review

The literature review provides context for the use of ePortfolios in higher education, including why they are considered a high impact practice (HIP), their purpose, and their effectiveness. It also examines ePortfolio use in schools of business specifically as study participants were enrolled in a required course for business majors—introduction to organizational behavior.

### High Impact Practices

HIPs and their underlying components were established through an analysis of student learning self-reports on the National Survey of Student Engagement (NSSE) (Kuh, O'Donnell, & Schneider, 2017). ePortfolio was added to the list of ten high impact practices in 2017, ten years after the term *high impact practice* was first formally adopted (Kuh, 2008; Kuh et al., 2017; Watson, Kuh, Rhodes, Light, & Chen, 2016). HIPs are "a demonstrably powerful set of interventions to foster student success," defined as "an undergraduate experience marked by academic achievement, engagement in educationally purposeful activities, satisfaction, persistence, attainment of educational objectives, and acquisition of desired learning outcomes that prepare one to live an economically self-sufficient, civically responsible, and rewarding life" (Kuh et al., 2017, p. 9). ePortfolios have been described as a meta-HIP which actively engages students in organizing and reflecting on their learning and learning processes (Watson et al., 2016).

The other HIPs are first-year seminars and experiences, common intellectual experiences, learning communities, writing- and inquiry-intensive courses, collaborative assignments and projects, undergraduate research, diversity/study away/global learning, service learning and community-based learning, internships and field experiences, and capstone courses and projects (Kuh, 2008; Kuh, et al., 2017). At their foundation is a set of eight key features: high performance expectations, investment of time and effort over an extended period of time, interactions with faculty and peers about substantive matters, experiences with diversity or unfamiliar people and circumstances, frequent and timely constructive feedback, real-world application, public demonstration of competence, and structured opportunities to reflect on learning (Kuh & O'Donnell, 2013).

## ePortfolio Benefits

ePortfolio is not merely an assessment platform, but "a powerful pedagogical approach that requires meaningful student reflection and deepens learning while making achievement visible—to students themselves, to their peers and faculty, and to external audiences" (Kuh et al., 2017, p. 10). As such, they "increase employability and support learning that might contribute to it" (Cambridge, 2008, p. 245). Benefits identified for business graduates include standing out in the applicant pool, creating an online presence and brand, and demonstrating competencies such as collaborative learning, goal setting, active learning, digital literacy, and self-assessment (Watty & McKay, 2016), all highly valued in business settings.

A UNESCO report on 21st century skills identified four pillars of learning—learning to know, do, live together, and be (Delors, 2013). Learning to know involves acquiring knowledge and deepening understanding; learning to do is characterized by gaining skills and methods; learning to live together is about tolerance, interconnection, and understanding to facilitate living in a global world; learning to be reflects self-awareness, ownership, goals, and self-direction. ePortfolios draw on this model (Kabilan & Khan; 2012), offering the following benefits: "skills and competencies; transformative potential; reflection; identity; active learning/student-centred engagement; employability; and assessment" (Watty & McKay, 2015, p. 198).

Briefly, *skills and competencies* reflect "active learning; goal setting; autonomous learning; collaborative learning; cross-curricular competencies; interpersonal communication; self-assessment; digital literacy; work-readiness; lifelong learning; self-management; higher order thinking; and self-awareness" (Watty & McKay, 2015, p. 199; Zinger & Sinclair, 2014). *Transformation* is possible particularly when ePortfolios are used institution-wide (Goldsmith, 2007) and when instruction shifts from being teacher-centric to learner-centric (Cochrane, Antonczak, Gordon, Sisson, & Withell, 2012). *Reflection* increases awareness and understanding (Cambridge, 2008, 2010; Kuh et al., 2017; Miller & Morgaine, 2009), but must be taught (Kabilan & Khan, 2012). *Identity* involves students learning how

to represent themselves to particular communities and audiences (Clark, 2010). *Student-centered engagement* occurs as students set goals and become self-directed (Kabilan & Khan, 2012), and as teachers transfer the work of learning to the student (Batson, 2010).

ePortfolios enhance *employability* by providing documentation and evidence of skills and learning, and continue to provide a record of professional development after graduation (Dalziel, 2012; Moretti & Giovannini, 2011; Smith & Tillema; 2003). Many professional bodies require individuals to record evidence of currency in their fields. ePortfolios can be a personal learning space where the owner records and reflects on strengths and weaknesses, identifies areas for improvement, and shares the journey of continued professional development (Dalziel, 2012). Finally, ePortfolios are frequently used for *assessment*, providing insights into growth in learning, application of learning, and "stories of deep learning" (Finger & Jamieson-Proctor, 2009, p. 69)

ePortfolios used for assessment of group projects can also be accompanied by peer review where students provide feedback to each other, thereby building critical awareness of their own work and that of others (Housego & Parker, 2009). This type of ePortfolio might be categorized as a multiple-owner ePortfolio, defined as being "used by a group of learners to present evidence of their academic growth through group collaboration" (Moretti & Giovannini 2011, p. 94). An example is a multi-disciplinary project in which students from two different classes collaborated to explore problems (Zinger & Sinclair, 2014). ePortfolios were used as a collaborative space for students to write, exchange experiences, respond to partner journal entries, and reflect.

ePortfolios may also include co-curricular experiences, such as involvement in student organizations, internships, or professional organizations, that support achievement of learning outcomes. They are a valuable means of documenting the learning process and may be used for employment, as a type of digital resume, although the latter has not yet been widely endorsed by employers. Although the majority of employers indicate that ePortfolios may be useful in determining evidence of needed knowledge and skills, software systems often do not accommodate ePortfolio links nor do managers have time to review them (Klosowski, 2014).

To be effective, teachers must experiment with ePortfolios (Johnsen, 2012), establish the benefits for students (Johnsen, 2012; Kelnowski, Askew, & Carnell, 2006), shift their pedagogical approaches (Johnsen, 2012), and preferably involve whole departments or institutions (Batson, 2010).

## ePortfolios and Teamwork in Schools of Business

Assurance of learning (AoL) is required for business schools accredited by the Association to Advance Collegiate Schools of Business (AACSB). Institutions can meet this standard through both direct and indirect measures (AACSB, 2013). Faculty members in business programs must identify

what students will learn, how they will learn it, how they will know what students have learned, and what they will do if students have not learned it (AACSB International Accreditation Coordinating Committee and AACSB International Accreditation Quality Committee, 2007, 2013; Attaway, Chandra, Dos Santos, Thatcher, & Wright, 2011).

For AoL purposes, the most common cross-cutting skill assessed by schools of business is written and oral communication (Martell, 2007; Kelley, Tong, & Choi, 2010; Wheeling, Miller, & Slocombe, 2015). Next are business knowledge, integrity and ethics, and critical thinking (Wheeling et al., 2015). Few business programs indicate the use of real-world projects or other HIPs as means of assessing learning outcomes (Kuh et al., 2017; Wheeling et al., 2015), but prefer rubric-scored assignments, test questions, and standardized exams (Wheeling et al., 2015).

Teamwork in business education has been associated with deep learning, critical thinking, motivation, retention of knowledge, and professional competency development (Hall, Ramsay, & Raven, 2004; Biggs & Tang, 2011; Ohl & Cates, 2006; Scott-Ladd & Chan, 2008; Volkov & Volkov, 2015; Wageman & Gordon, 2005). Virtual teams are also increasingly relevant to prepare students for a globally connected world. However, fewer and fewer business schools are assessing teamwork although it is identified by employers as critical (Hart Research Associates, 2015). Assessment of teamwork decreased from 42% in 2007 (Martell, 2007) to 26.5% in 2010 (Kelley et al., 2010), and by 2015, it had disappeared from the list of assessments used by AACSB-accredited business schools (Wheeling et al., 2015).

Also, in spite of the view that ePortfolios have the "potential for transforming business education curricula through the linking of practice-oriented learning and the development of graduate attributes" (Housego & Parker, 2009, p. 409), only 8.8% of business schools use ePortfolios to assess student learning (Wheeling et al., 2015), suggesting that this is an area for exploration. This is occurring in Australia where business schools have launched a national ePortfolio initiative aimed at embedding ePortfolios into undergraduate business and management education (Business Education ePortfolios, 2016).

## Methods

A qualitative approach was adopted for this study because its purpose was to obtain greater understanding of the student experience related to ePortfolios and teamwork. Although the benefits of ePortfolios are established, this study examined possible new phenomena related to their use. The purpose of the study was to explore rather than to test or confirm existing theory. The study sought to capture participants' experiences and how they made sense of these experiences, thus a phenomenological approach was adopted (Creswell, 2013). Specifically, in this case, the study examined the students' involvements with learning in teams—their subjective, lived experiences

throughout the course and over time as documented in the ePortfolio artifacts and their final reflections. This approach allowed for a deeper understanding of the learning experience overall and the impact of the course content and structure on students.

**Participants**

This study involved students at a large, regional, open admission university who were majoring in business and enrolled in a required introduction to organizational behavior course. Participants included 35 students in a face-to-face class and 50 students in an online class. As such, the study used a convenience sample consisting of those enrolled in the course who completed the team ePortfolio assignment as part of their required coursework.

The instructor randomly created the teams rather than having students choose their own members. The purpose of this was to prepare students to work with a variety of people and apply what they were learning about the stages of team formation, strategies of effective teams, personality and perception, conflict, communication, decision-making, motivation, and other course concepts. Teams ranged in size from 3-6 students.

**Data Collection**

Each team created an ePortfolio and collaborated weekly to add an artifact reflecting a concept or theory from the topic of study that week. The artifact was scored with a rubric, which outlined expectations (e.g., reference to a learning outcome or key concept, rationale for choosing the artifact, importance/meaningfulness of the artifact, creativity and quality, and the strategies and tools used to collaborate). Each week teams posted a link in the learning management system to their ePortfolio page for other students to review and reflect on. They identified how the artifact deepened their understanding and made suggestions for improvement. Students received detailed instructor commentary on their artifacts and reviews to aid their learning. The instructor also posted "stand-out" examples of artifacts each week with commentary as to their exemplary features.

At the end of the semester, students wrote individual reflections about their team ePortfolio experience based on the following prompt:

> Please write 1-2 paragraphs about what you learned by creating a team ePortfolio. Comment on how the assignment may have led you to explore course concepts in new ways, apply concepts and theories to real-life, or deepen your learning, and how your learning progressed over the semester. Also comment on what you learned by working in a team and how you applied what you studied about concepts such as groupthink, team formation, behaviors and norms, perception, personality, diversity, communication, conflict, negotiation, and other topics in order to work effectively as a team.

These reflections were collected in the course learning management system. The ePortfolio assignment was the same regardless of course modality—face-to-face or online. Students in the online

sections worked in virtual teams. In all cases, students set a group charter outlining their norms and expected behaviors, including method of communication, meeting times, roles, tasks, deadlines, and consequences for those not meeting expectations. The study met all requirements for research involving human subjects per the Institutional Review Board.

## Data Analysis

Student reflections were examined to identify evidence of learning outcomes, specifically the cross-cutting skills valued by employers, as well as organizational behavior concepts, and the learning benefits of ePortfolios identified earlier (e.g., skills, competencies, transformation, reflection, identity, active learning, etc.) (Watty & McKay, 2015). The United Nations Educational, Scientific and Cultural Organization (UNESCO) pillars of learning framework—learning to know, do, live together, and be (Delors, 2013) – were also considered as a possible lens through which to view students' experiences. The reflections were analyzed using NVivo software to code and categorize the data into themes (Saldana, 2013). Comparisons across the two course delivery modes were made to determine possible differences in students' experiences in face-to-face or virtual teamwork on the assignment.

## Quality Assurance

Qualitative research explores phenomena rather than testing theory. As such, it is exploratory, focusing on stories (in this case, stories of learning), rather than numbers, and seeking sufficient data to understand a phenomenon (Baker & Edwards, 2012). When the data becomes repetitive, revealing recurring themes, saturation is attained. Sufficiency of data is also determined through the use of a non-homogenous sample; in this case, students reflected the demographic mix of the institution in terms of gender, age, ethnicity, and academic performance.

Quality assurance techniques for qualitative research include triangulation through multiple data sources (e.g., different course modalities) as well as rich, in-depth description to accurately reflect participants' experiences (Trochim, 2006; Yilmaz, 2013). Qualitative research emphasizes transferability of conclusions to other contexts rather than generalization; dependability, or whether outcomes can be repeated; as well as confirmability, or having others substantiate the results (Trochim, 2006). In this study, the findings are transferable in that they inform practice in other contexts. They expand the literature on ePortfolios, particularly the use of team ePortfolios across multiple course modalities. Dependability was obtained by examining multiple course sections, and confirmability through the use of an external data analyst who was not involved in teaching the class.

## Findings

A number of opportunities presented themselves for organizing the themes. The UNESCO pillars of learning—learning to know, learning to do, learning to live together, and learning to be (Delors,

2013)—are used as an overarching conceptual framework with relevant sub-themes illustrated within each pillar. Themes for both the face-to-face and online sections of the course fit within this structural framework; variations that reflect delivery modality are noted. Otherwise, illustrative comments represent students across course modalities.

**Learning to Know**

*Learning to know* reflects ways in which students increased and deepened their understanding of organizational behavior course concepts or of broader learning outcomes such as those desired by employers (e.g., oral and written communication, critical thinking, problem-solving). In many cases, the two overlapped. Course topics, such as managing teams and groups, communication, conflict and negotiation, perceptions and decision-making, personality and values, diversity, leadership, motivation, emotions and moods, individual attitudes and behaviors, and power and politics, lent themselves to the development of the types of knowledge, skills, and abilities desired in the workplace.

Characteristic of student responses was that the team ePortfolio helped them attain deeper understanding of a topic and apply their learning. One student said that it "forced [her] to work harder and therefore better understand the concepts." Another indicated: "I was required to dig deeper into concepts when searching for artifact content. Reviewing the learning objectives, selecting one as our focus, and then furthering our sources of information and learning was a great way to cement ideas and concepts." Students commented that they had to "do additional research on chapter topics that [they] may not have looked into otherwise." One said that the assignment helped him "look at each of the topics in a different way as if [he were] the actual teacher for the topic." Another shared that "creating an ePortfolio was an enlightening experience as [her team] gave thought and design to various familiar, yet not mastered, concepts."

The effort expended to complete the assignment required students to engage with the topic and understand its value:

> The best artifacts, I feel, expanded upon and increased our knowledge over the chapter content. The chapters where I really put effort into creating a good artifact are the chapters that I not only remember the best but actually have ended up applying the concepts to my real life job.

Others also commented on the application aspect of the assignment: "We were able to apply the concepts to ourselves easier because we had to elaborate; we gave personal experiences, examples, and why it was important to us."

Another aspect of this theme was increasing understanding of course concepts through interaction with peers: "It was great to receive feedback from classmates. I learned a lot from them on how to

improve. I remember doing specific things on certain pages, and hoping the person who gave feedback the prior week would see our improvements." Another indicated:

> I learned a lot about organizational behavior through the ePortfolio assignments. Due to the criteria required of each project, I was able to put different concepts under the microscope to understand them more and still receive background from the other parts of the chapter from other groups.

Additionally, students were able to use course content to better understand their team members and improve their team work:

> Many concepts about personality provided insight into the members of our team in a way that we were able to work more efficiently. At the beginning of the semester, several members did not reply to messages which would often frustrate me. However, after learning about their personality, I observed that the lack of communication had nothing to do with ignoring the messages, but rather having a more introverted personality.

In terms of face-to-face and online modality comparisons, the findings for this theme were similar—students gained knowledge through the ePortoflio assignment. Online students specifically observed how the course design contributed to interaction:

> Not only was I able to learn a lot from all the posts and the reflections, but also from my team. With this being an online class, it gave me an opportunity to get to know and connect with all of my classmates and some more than others. It is a large class that covered a lot of important material and we got to learn from so many people and think deeply about things that were the most beneficial.

In sum, students strongly indicated the benefits of the ePortfolio assignment in terms of learning to know. This involved gaining a more in depth understanding of course concepts and learning within and across teams through interaction and peer review.

**Learning to Do**

*Learning to do* involved students acquiring skills and abilities as a result of the team ePortfolio assignment. Many of these entailed the application of organizational behavior concepts. One student indicated: "The idea of creating the ePortfolio in teams, instead of individually, allowed me to see the concepts taught in class manifest within my own team." Organizational behavior concepts mentioned by the students included improved ability to communicate, resolve conflict, lead, appreciate diversity, and work in teams as well as to apply knowledge to employment contexts. Additional aspects of learning to do represented practical skills such as planning, scheduling, coordinating, and being accountable and responsible.

Communication was a frequently mentioned course concept that students applied to the assignment. The quote that follows, from an online student, highlights how teams used multiple forms of communication to accomplish their work; the student also uses a technical term – lateral – to describe the level of communication:

> By working in a team, I was able to learn a lot about communication . . . and how this aspect of organizational behavior can greatly affect the outcomes of a group. Communication was a large issue

we faced at the beginning as it was very hard to get every member of the team on the same page. With the use of oral communication through video chat, and written communication through text and email, we improved our lateral communication problems quickly.

The next quote illustrates the importance of effective communication to achieve quality work:

The main thing I learned during the process of making an eportfolio with a team was communication. If there was no communication, the artifact would get done last minute and would just be thrown together. However, if we as a team communicated throughout the week about it, it would get done way earlier and look much nicer.

Other students, particularly those in the online course, mentioned the use of virtual tools for purposes of communication: "What I learned from working on a team is how to better communicate through online resources. . . . this class taught me more about group work and effort than any of my other classes have."

Related to communication was learning to manage conflict. Conflict sometimes resulted in a less-than-desirable outcome in terms of the ePortfolio artifact.

Conflict often arises during group work, and understanding how to manage and approach these conflicts is important to the success of the team. Looking back at our eportfolio, I think it is easy to see where there were conflicting opinions or ideas that were not fully resolved because the artifact feels incomplete or sections appear out of place.

Another common aspect of learning to do was appreciation of diversity, specifically the talents, skills, and abilities that team members brought to a task, and utilizing these to be successful:

Our norming phase carried out for two weeks as we started understanding who had specific expertise in certain fields. For example, [student name] is an excellent web page designer. Because of this, he was assigned to create the background and layout of our artifact each week while the remaining group members contributed to the individual subtopics within the artifact. By the fourth week, we were in full-functioning performance mode. Each team member had a clear understanding of their responsibility and how to accomplish their task. I can honestly say I've never worked in a group that has collaborated as quickly and as efficiently.

The quote illustrates how the team determined appropriate norms and behaviors and applied organizational skills in order to be effective.

Learning to do frequently involved students implementing what they were studying in daily life. One said: "I notice problems that need to be worked on and I revisit the chapters to see if any talk about our current problem. Most the time it does, and I am able to work with my coworkers to resolve it." In particular, teamwork was seen as realistic preparation for future careers, especially collaboration and accountability:

Another factor I loved about the class is that there weren't any tests or exams. Working in teams is a much better way of learning in my opinion. The reason I prefer this is because in the workforce, I have rarely seen or done anything where it was individual, like tests or exams. Every job that I've had and

some of my friends have had were involving teams and groups where we work together and hold each other accountable.

Another student indicated not only applying textbook material, but also applying learning gained from other students:

I am currently working at a company that requires a lot of collaboration. I am also in a management position, so I am heavily involved in the decision making/discussion process. Throughout the semester I have been able to apply what I've learned from, first, working with my team, and second, from reading and discussing the different ePortfolios.

The assignment forced students to "to plan out assignments and follow up via text constantly," and to develop other practical skills. "While team collaboration can be difficult with an online course, creating an assignment that is weekly really helped with accountability and responsibility." Another said: "Everyone had different schedules but we would all pitch in at different times; [the chapter on understanding teams] made us realize this was one way for us to succeed without a team member trying to overstep another one's leadership."

Overall, learning to do was evident in a variety of ways as students applied course concepts to improve their performance. Students in both face-to-face and online sections faced similar challenges but were able to overcome them equally well by learning to do, or to apply course concepts and cross-cutting skills to their advantage. Those in the online course commented on challenges with online communication but were able to address these by using the tools provided and by applying course concepts.

**Learning to Live Together**

The theme *learning to live together* involves making connections, increasing understanding, and developing tolerance. Student reflections exhibited a number of ways in which they were learning to live together—by understanding different personality types, sharing and respecting each other's ideas, choosing and fulfilling roles, and helping each other. One student put it this way: "It was a little bumpy in the beginning because you are unsure what to expect from each other, but once we became acquainted and understood our role as a team member we worked together really well." Another indicated: "We ended up working very well with one another. We were upfront with each other and never took it badly and were willing to help each other."

Differences were apparent within teams, requiring students to understand and appreciate a variety of ways to approach and accomplish a task. An example of this was work styles: "The biggest difficulty we had to learn was how to cater to different work styles. One of our members always got the assignment done right as it was assigned; another only worked on it the night it was due." Differences in culture, language, and age, which influenced communication and points of view, were also factors:

> Perception and language barrier were the two biggest struggles for all five of us . . . . None of us knew how to get along with each other and most of the time we had a hard time understanding what [student name] was trying to tell us. What she texted to group chat sometime did not make sense, and I believe it is because she's older than all of us, and her point of view in every assignment is different.

Indeed, learning to work with others involved considering and respecting a range of ideas. "You cannot always expect to do things on your own and think your way is the only right way. Working with a team helped me think deeper. . . and to work to perfect [the artifact] with all of our ideas." Another said: "I found that sometimes ideas need to be ruled out, and sometimes they work great. The only way to allow each member to add to the group is make their ideas matter." Students also recognized that a range of ideas was an advantage: "It was way fun to work in this group. As the page came together it was cool to see everyone's personalities and what they thought would make the page better and attractive."

Appreciation for differences was also noted. One student indicated: "One of the reasons I learned so much from my classmates is because we are all so different. Sharing our ideas and experiences with one another helped me to learn and think differently because we all have different insights and opinions." Another said:

> We did not always agree on what needed to be done with our group work, but we always managed to figure out and plan ways that we could work smoothly together as a team. I think part of this was definitely due to the principles we were learning in this class. Working with other people virtually can be extremely difficult . . . and I definitely don't think that we ever got it down perfect, but the practice was great!

Students also learned the importance or establishing roles and ensuring that responsibilities were clear:

> Working in teams helped me understand the importance of working together and establishing different roles. We can all hold different roles in a group and we don't always have to be that one role. We switched leaders multiple times in our group and we all learned a lot from it.

Another said that his team worked more effectively when "each team member [knew] what they [were] required to do." Others agreed: "My team worked even better after we established who was going to be doing what." Another recognized "how important norms and roles are. By establishing roles early on, it led to us to know what our responsibility was and what was expected."

Several comments were related to understanding other's needs and accommodating these needs: "We were all very understanding and forgiving which made working together less dramatic/stressful and more pleasant/simple." Students were realistic in terms of expectations, willing to work together, and tolerant. A student in the online section recognized that levels of commitment might vary:

From time to time you could tell that there was a disconnect and sometimes individuals "checked-out" simply because the level of accountability was different from a team that meets in person often.

Our team reached its peak when we all understood what we would need to contribute to be successful and that someone would need to take the initiative and assign roles.

A few differences in comments were evident between the face-to-face and online sections. The above comment demonstrates that the student's perception that it was easier for students to be inactive in an online team than from a face-to-face team. Another commented on the nonverbal nature of her team's virtual communication:

> The first few weeks were challenging because roles were difficult to define as we could not perceive nonverbal cues that assist in knowing a person and identifying how they will best be able to contribute to the group. After responsibilities and personalities were understood, I think things got a little bit easier for us.

Overall, the course design for both delivery modalities enabled not only effective learning but also application of learning, and consequently, resulted in effective teamwork.

**Learning to Be**

*Learning to be* encompasses self-awareness, ownership, goals, and self-direction. It was evidenced by students gaining insights into their personalities, preferences, skills, abilities, and achievements. One student indicated self-awareness of the joy of learning with others: "I learned a lot about groups and how to work with others throughout this semester and I have loved learning with others!" Another demonstrated self-awareness of the need to work well with others:

> The eportfolio helped me understand how to work with people better and learn information at the same time. You will always have to communicate with other people in every job; this assignment gave me new insight on how I do this more effectively.

One indicated how the assignment helped her apply what she was learning, take responsibility for learning, and learn from others: "We were able to apply the concepts to ourselves easier because we had to elaborate; we gave personal experiences, examples, and why it was important to us. I progressed also by looking at other's eportfolios."

Others showed increased awareness of the value of different backgrounds and perspectives: "I learned that there can be a large diversity in opinion, especially when we have group members from completely different cultures." "I am noticing more about team chemistry and having the right mix of people and how their opinions and experiences can be so vital to what we are all doing." One student indicated seeing how to incorporate different points of view:

> Our group was awesome AND everyone had LOTS of ideas and opinions. We didn't want to exclude anyone's ideas, but I learned to negotiate and give and take ideas to create our portfolio. I especially learned a lot from [student name]. She was really good at validating ideas and then changing them to fit the needs of our portfolio without making anyone feel dumb. I learned it's important to not be a "yes" person.

Another commented on how she moved forward after a negative team experience:

> For one ePortfolio project, I spent hours designing a graphic I thought went very well with the information from the text. That graphic was deleted right before our assignment was submitted and changed to a different graphic. This was hard for me, but I decided that moving forward was the best way to approach the situation.

Students also increased self-awareness of leadership and team roles: "One thing that really called out to me was personality and traits and how it has an effect on what kind of leader you are. I never really took into consideration how my shyness and being quiet could affect how I lead a team." One practiced using a particular leadership approach: "I took a transactional leadership (manager) role and attempted to make assignments and follow up on assignments hoping that our team would fulfill them simply because it's the right thing to do." One student developed the ability to delegate: "With this group I felt that everyone gave their all and it forced me to take a step back and let others take responsibility. I learned how to delegate tasks without being bossy or aggressive." Others preferred to follow:

> I learned that someone needs to take charge. It was so nice when someone would delegate the specific parts of the assignment evenly. That way we all knew what was expected of us on that page, and we needed to get it done by Monday night."

Based on feedback received on their e-portfolios, teams set goals related to not making grammar errors, appointing an editor, or setting earlier deadlines. One team decided to vary its content to aid learning: "Our goal was to avoid using another video to explain the learning objective. The chart helps us remember the learning objective by printing it into our minds. You can also use it in your notes to refresh your memory."

The ePortfolio assignment resulted in personal growth or learning to be. "I feel I understand myself better now and how I can make the most of my energy level, decision-making, and organization skills in the future." As was the case for other themes, some students in the online section felt that working with a face-to-face team would have been easier: "It feels I would have understood quicker the members of the team, what drives them, and stay more connected."  However, in general, these comments were minimal and students in both courses demonstrated positive learning gains in the area of learning to be as illustrated.

## Discussion and Implications

Although some perceive online classes as involving independent learning with few opportunities for interaction and socialization, this can be addressed through course design, as was the case in this study. The team ePortfolio and accompanying review and reflect assignment not only encouraged relationship-building but also the development of team skills. This occurred across course modalities. The online students recognized inherent challenges related to virtual communication, but

demonstrated the ability to apply course concepts, particularly how to work in teams, in order to increase their learning and accomplish course tasks. For all students, the assignment provided them with the opportunity to develop personal attributes reflecting the cross-cutting needed in the workforce.

The study clearly demonstrated that ePortfolios can transform learning, and in particular, that ePortfolios created in teams result in significant learning gains. These include learning to know (in depth knowledge and application of course topics through study and interaction), learning to do (application of concepts and theories to improve the ability to communicate, resolve conflict, lead, work in teams, and be accountable), learning to live together (the process of increasing understanding, tolerance, and appreciation of other people, their personalities, backgrounds, and ideas), and learning to be (individual insights into one's personality, preferences, and progress).

The study supports ePortfolio as a high impact practice. The team ePortfolio assignment was characterized by all of the elements of HIPs, (e.g., performance expectations set at a high level; significant investment of time and effort by students over an extended period of time; experiences with diverse others; frequent, timely, and constructive feedback; structured opportunities to reflect and integrate learning; opportunities to discover relevance of learning through real-world applications; and public demonstration of competence) (Kuh & O'Donnell, 2013). Students learned from each other in their teams and applied instructor and peer feedback on their ePortfolios to further increase their learning.

In spite of the view that ePortfolios have the "potential for transforming business education curricula through the linking of practice-oriented learning and the development of graduate attributes" (Housego & Parker, 2009, p. 409), they are underused in schools of business, not only as a means of tracking the achievement of learning outcomes but also as a means of developing them. This study demonstrated the effectiveness of adopting ePortfolios in a single class. Program-wide adoption would provide students with additional opportunities to be active learners and to connect learning across courses.

The study has some limitations. It involved courses taught by only one instructor albeit through different delivery modalities. Data was limited to student self-reports. Also, because the reflections that were the source of data for the study were required assignments, students may have represented their experiences more positively than they actually were in order to get a desirable grade. However, the data did provide examples of challenges students faced and how they overcame them. Also, the degree of detail and specificity with which the students reported their experiences portrayed a high level of honesty. Future research is needed to examine the benefits of team ePortfolios in other contexts and particularly in online courses.

## Conclusion

This study unequivocally demonstrated that ePortfolios are "a powerful pedagogical approach that requires meaningful student reflection and deepens learning while making achievement visible—to students themselves, to their peers and faculty, and to external audiences" (Kuh et al., 2017, p. 10). The team ePortfolio assignment transformed learning as students participated actively, developed new skills and competencies, reflected on and assessed their learning, explored their own identities, and developed employer-desired skills (Hart Research Associates, 2015). Active investment in documenting learning helps students recognize what is involved in achieving expected outcomes and recognizing learning gains. The clear takeaway from this study is that team ePortfolios can result in a range of highly desired learning outcomes. As such, academic programs within schools of business and in other colleges/schools should strongly consider how team ePortfolios might be implemented and structured into the student experience.

## References

AACSB International Accreditation Coordinating Committee and AACSB International Accreditation Quality Committee. (2007). AACSB White Paper No. 3. Retrieved from https://naspaaaccreditation.files.wordpress.com/2014/04/aacsb.pdf

Association of American Colleges and Universities. (n. d.). *What is a liberal education*? Retrieved from https://www.aacu.org/leap/what-is-a-liberal-education

Association of American Colleges and Universities. (2011). *The LEAP vision for learning: Outcomes, practices, impact, and employers' views.* Washington, DC: Association of American Colleges and Universities. Retrieved from https://www.aacu.org/sites/default/files/files/LEAP/leap_vision_summary.pdf

Association of American Colleges and Universities. (2015). *The LEAP challenge: Education for a world of unscripted problems.* Washington, DC: Association of American Colleges and Universities. Retrieved from https://www.aacu.org/sites/default/files/files/LEAP/LEAPChallengeBrochure.pdf

Association to Advance Collegiate Schools of Business (AACSB). (2013). *AACSB assurance of learning standards—As interpretation.* Retrieved from http://www.aacsb.edu/~/media/AACSB/Publications/white-papers/wp-assurance-of-learning-standards.ashx

Attaway, A. N., Chandra, S., Dos Santos, B. L., Thatcher, M. E., & Wright, A. L.  (2011). An approach to meeting AACSB assurance of learning standards in an IS core course. *Journal of Information Systems Education, 22*(4), 355-366.

Baker, S. E., & Edwards, R. (2012). *How many qualitative interviews is enough?* Southampton, UK: National Center for Research Methods.

Batson, T. (2010). ePortfolios: Let me count the ways. *Campus Technology, 1*, 1–3.

Biggs, J. B., & Tang, C. (2011). *Teaching for quality learning at university*. (94th ed.). Open University Press, Buckingham.

Business Education ePortfolios. (2016). *Realising the potential: Assessing professional learning through the integration of ePortfolios in Australian business education*. Retrieved from http://www.buseport.com.au/the-project.html

Cambridge, D. (2008). Layering networked and symphonic selves: A critical role for e-portfolios in employability through integrative learning, *Campus-Wide Information Systems, 25*(4), 244-262. doi 10.1108/10650740810900685

Cambridge, D. (2010). *Eportfolios for lifelong learning and assessment*. San Francisco, CA: Jossey-Bass.

Clark, J. E. (2010). The digital imperative: Making the case for a 21st century pedagogy. *Computers and Composition, 27*, 27–35. doi: 10.1016/j.compcom.2009.12.004

Creswell, J. W. (2013). *Qualitative inquiry and research design. Choosing among five approaches*. Thousand Oaks, CA: Sage.

Cochrane, T., Antonczak, L., Gordon, A., Sissons, H., & Withell, A. (2012, November). *Heutagogy and mobile social media: Post Web 2.0 pedagogy*. Proceedings of the 29th ASCILITE Conference (pp. 1255–1269). Wellington, New Zealand. Retrieved from http://www.leishman-associates.com.au/ascilite2011/downloads/papers/Uys-full.pdf

Dalziel, C. (2012, November). Making it personal. *Training journal*, 30-33. Retrieved from http://www.trainingjournal.com/articles/magazine/november-2012

Delors, J. (2013). The treasure within: Learning to know, learning to do, learning to live together and learning to be. What is the value of that treasure 15 years after its publication? *International Review of Education, 59*, 319–330. doi:10.1007/s11159-013-9350-8

Finger, G., & Jamieson-Proctor, R. (2009). Assessment issues and new technologies: ePortfolio possibilities. In C. Wyatt-Smith, & J. Cumming (Eds.), *Educational assessment in the 21st century* (pp. 63–81). Netherlands: Springer.

Goldsmith, D. J. (2007). Enhancing learning and assessment through e-portfolios: A collaborative effort in Connecticut. *New Directions for Student Services*, 31–42. doi:10.1002/ss.247

Hall, M., Ramsay, A., & Raven, J. (2004). Changing the learning environment to promote deep learning approaches in first year accounting students. *Accounting Education: An International Journal, 13*(4), 489-505.

Hart Research Associates (2015, January). *Falling short? College learning and career success*. Washington, DC: Association of American Colleges and Universities. Retrieved from https://www.aacu.org/sites/default/files/files/LEAP/2015employerstudentsurvey.pdf

Housego, S., & Parker, N. (2009). Positioning ePortfolios in an integrated curriculum. *Education + Training, 51*(5/6), 408-421.

Johnsen, H. L. (2012). Making learning visible with ePortfolios: Coupling the right pedagogy with the right technology. *International Journal of ePortfolio, 2*, 139–148.

Kabilan, M. K., & Khan, M. A. (2012). Assessing pre-service English language teachers' learning using e-portfolios: Benefits, challenges and competencies gained. *Computers & Education, 58*, 1007–1020. doi: 10.1016/j.compedu.2011.11.011

Kelley, C., Tong, P, & Choi, B. J. (2010). A review of assessment of student learning programs at AACSB schools: A dean's perspective. *Journal of Education for Business, 85*, 299-306. doi: 10.1080/08832320903449519

Kelnowski, V., Askew, S., & Carnell, E. (2006). Portfolios for learning, assessment and professional development in higher education. Assessment & Evaluation in Higher Education, 31(3), 267-286.

Klosowski, T. (2014, February). Why you shouldn't link to your web portfolio in your job application. Retrieved from https://lifehacker.com/why-you-shouldnt-link-to-your-web-portfolio-in-your-jo-1529748370

Kuh, G. D. (2008). *High-impact educational practices: What they are, who has access to them, and why they matter*. Washington, DC: Association of American Colleges and Universities. Retrieved from https://www.aacu.org/leap/hips

Kuh, G. D., & O'Donnell, K. (2013). *Ensuring quality and taking high-impact practices to scale*. Washington, DC: Association of American Colleges and Universities. Retrieved from https://www.aacu.org/publications-research/publications/ensuring-quality-taking-high-impact-practices-scale

Kuh, G. D., O'Donnell, K., & Schneider, C. G. (2017). HIPs at ten. *Change: The Magazine of Higher Learning, 49*(5), 8-16. Retrieved from https://doi.org/10.1080/00091383.2017.1366805

Martell, K. (2007). Assessing student learning: Are business schools making the grade? *Journal of Education for Business, 82(4)*, 189–195.

Miller, R, & Morgaine, W. (2009). The benefits of e-portfolios for students and faculty in their own words. *Peer Review, 11*(1), 8-12. Retrieved from https://www.aacu.org/publications-research/periodicals/benefits-e-portfolios-students-and-faculty-their-own-words

Moretti, M., & Giovannini, M. (2011). ePortfolio as a job-seeking tool for universities. *Journal for Perspectives of Economic, Political, and Social Integration*, 17(1–2), 87–104. Retrieved from https://doi.org/10.2478/v10241-012-0012-8

Ohl, T., & Cates, W. (2006). The nature of groups: implications for learning design. *Journal of Interactive Learning Research, 17*(1), 71-89.

Saldana, J. (2013). *The coding manual for qualitative researchers*. London: Sage.

Schneider, C. G. (2015). The LEAP challenge: Transforming for students, essential for liberal education. *Liberal Education, 101*(1/2), 6-15.

Scott-Ladd, B., & Chan, C. C. A. (2008). Using action research to teach students to manage team learning and improve teamwork satisfaction. *Active Learning in Higher Education, 9*(3), 231-248.

Smith, K., & Tillema, H. (2003). Clarifying different types of portfolio use. *Assessment & Evaluation in Higher Education, 28*, 625–648. doi:10.1080/0260293032000130252

Trochim, W. M. (2006). *Qualitative validity*. Retrieved from http://www.socialresearchmethods.net/kb/qualval.php

Volkov, A., & Volkov, M. (2015). Teamwork benefits in tertiary education. *Education + Training, 57*(3), 262-278.

Wageman, R., & Gordon, F.M. (2005). As the twig is bent: How group values shape emergent task interdependence in groups. *Organization Science, 16*(6), 687-722.

Watson, C. E., Kuh, G. D., Rhodes, T., Light, T. P., & Chen, H. L. (2016). Editorial: ePortfolios—The eleventh high impact practice. *International Journal of ePortfolio*, *6*(2), 65-69.

Watty, K., & McKay, J. (2015). Pedagogy and ePortfolios: Purpose aligned to design (or the *why* and *how*). *International Journal of Pedagogies and Learning, 10*(3), 194-207. Retrieved from http://dx.doi.org/10.1080/22040552.2015.1135498

Watty, K., & McKay, J. (2016). ePortfolios: What employers think. *EFMD Global Focus, 3*(10), 60-63. Retrieved from https://issuu.com/efmd/docs/efmd_global_focus_1003_online

Wheeling, B. M., Miller, D. S., & Slocombe, T. E. (2015). Assessment at AACSB schools: A survey of deans. *Journal of Education for Business, 90*, 44-49. DOI: 10.1080/08832323.2014.973824

Yilmaz, K. (2013). Comparison of quantitative and qualitative research traditions: Epistemological, theoretical, and methodological differences. *European Journal of Education*, *48*(2), 311-325.

Young, J. R. (2017, July). *How many times will people change jobs? The myth of the endlessly-job-hopping millennial.* Retrieved from https://www.edsurge.com/news/2017-07-20-how-many-times-will-people-change-jobs-the-myth-of-the-endlessly-job-hopping-millennial

Zinger, L., & Sinclair, A. (2014). Starting an ePortfolio: A multi-disciplinary approach. *Contemporary Issues in Education Research, 7*(4), 249-252.

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