

Developing Management Skills Team ePortfolios

Maureen Snow Andrade

Utah Valley University
mmaureen.andrade@uvu.edu

Abstract

An introduction to organizational behavior course is a typical requirement in most business programs. Curricular innovations in such courses can encourage students to apply their learning and develop critical managerial skills. This qualitative study examined how the use of team ePortfolios in an organizational behavior course helped students develop skills related to planning, organizing, leading, and controlling (POLC). The teams submitted artifacts in which they reflected on course concepts and teamwork. Reflections were analyzed for evidence of the functions in the POLC framework. Findings indicated that planning and organizing were the most dominant followed by controlling, and then leading. In some respects, the inauthenticity of the assignment in terms of its short-term nature, the non-hierarchical team structure, and the lack of authority for the leader may have impacted these outcomes. However, the teams demonstrated effective integration of the POLC functions accompanied by the development of important employer valued cross-cutting skills such as communication, teamwork, critical thinking, application of knowledge, and the ability to work with diverse others.

Keywords: ePortfolio, high impact practices, cross-cutting skills, reflection, teamwork, management skills, higher education

Introduction

Most higher education business programs require students to take a course in organizational behavior. These courses typically focus on concepts and theories aimed at increasing understanding of individuals, groups, and organizations. Topics typically include diversity, personality and values, emotions and moods, attitudes and job satisfaction, perception and decision-making, groups and teams, communication, leadership, politics, and organizational culture. The goal of such courses is to help students learn effective managerial skills.

Managerial functions in organizational behavior are commonly referred to with the acronym POLC for planning, organizing, leading, and controlling (Fayol, 1916). Briefly, planning involves setting goals, identifying actions needed to achieve goals, and evaluating success. Organization focuses on structure, roles responsibilities, and job design. Leading entails inspiring and motivating others to achieve the mission of the organization while controlling emphasizes performance standards, comparing performance to standards, and taking action to improve performance and goal achievement.

High impact educational practices, known as HIPs, and the elements on which they are founded, can help students develop these management skills. HIPs entail first-year experiences, common intellectual experiences, learning communities, writing-intensive courses, collaborative

assignments, undergraduate research, diversity/study away/global learning, service learning, field experiences, capstone projects, and ePortfolio (Kuh, 2008; Kuh, O'Donnell, & Schneider, 2017). They are characterized by eight elements: high expectations for performance, an investment of time and effort over an extended time, faculty and peer interaction, experiences with diversity, frequent and timely feedback, real-world application, demonstration of competence, and reflection (Kuh & O'Donnell, 2013).

This study examined students' learning experiences in an organizational behavior course taught across three delivery modalities—face-to-face, blended, and online. Students in all sections of the course were required to create a team ePortfolio documenting their learning. As part of this assignment, the student teams reflected on their learning of course concepts as well as their effectiveness as a team. These ePortfolio artifacts were analyzed to determine the extent to which students developed the managerial skills reflected by the POLC framework. The objective of the study was to determine the effectiveness of specific HIPs (ePortfolio, collaborative assignments, interaction with diverse others, intensive writing) and their elements (the eight elements referenced earlier) in the development of managerial skills.

Literature Review

Ideally, HIPs and their elements should lead to desirable learning outcomes, and particularly those prioritized by employers. The latter include effective oral communication, teamwork, and written communication skills; ethical judgment and decision-making skills; critical thinking and analytical abilities; and the application of knowledge and skills to real-life (Hart Research Associates, 2015). Additionally, employers have indicated that they are somewhat or much more likely to consider hiring recent college graduates who have completed an internship (94%), a senior project designed to develop the skills mentioned above (87%), courses requiring large amounts of writing (81%), participation in collaborative research (80%) and service learning (69%). (ePortfolios were not included as an option in the survey.) In other words, employers value application of learning. This review focuses on the HIPs of ePortfolios and teamwork with an emphasis on their use in schools of business.

ePortfolios have been described as “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). They entail requiring students to provide evidence of their learning through a compilation of artifacts, or representative examples of their work, accompanied by reflection on what they learned, often over time or across courses and programs of study (Cambridge, 2010; Miller & Morgaine, 2009).

In spite of their “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 AACSB-accredited U.S. business schools, (a total of 8 schools), reported assessing student learning with ePortfolios (Wheeling, Miller, & Slocombe, 2015). This is in contrast to a national large-scale business school initiative in Australia aimed at implementing ePortfolios into all undergraduate business and management programs (Business Education ePortfolios, 2016).

Additionally, in spite of documented outcomes in business education demonstrating the positive outcomes of teamwork on the development of professional competencies as well as deep learning, analytical thinking, motivation, and knowledge retention (Biggs & Tang, 2011; Hall, Ramsay, & Raven, 2004; Ohl & Cates, 2006; Scott-Ladd & Chan, 2008; Volkov & Volkov,

2015; Wageman & Gordon, 2005), a declining number of AACSB-accredited business schools are using it for assessment purposes. Consider that 42% of business schools reported using it in 2007 (Martell, 2007), 26.5% in 2010 (Kelley, Tong, & Choi, 2010), and none in 2015 (Wheeling et al., 2015), yet teamwork has been identified as a critical skill by 83% of employers across sectors, second only to oral communication skills (Hart Research Associates, 2015).

In studies reporting on some aspect of teamwork in combination with the use of ePortfolios, the latter have been used primarily as a means for students to reflect individually on their participation, contributions, and learning related to teamwork, or to provide peer review of group projects (Housego & Parker, 2009). ePortfolios have also been used to provide a place for students enrolled in two different courses to collaborate, explore topics, share experiences, reflect, and respond to each other's journal entries (Zinger & Sinclair, 2014). In all cases, the effective implementation of ePortfolios involves experimentation and new pedagogies (Johnsen, 2012) and selling their benefits to students (Johnsen, 2012; Kelnowski, Askew, & Carnell, 2006).

Another benefit of ePortfolios is their use as a sort of digital resume. However, in spite of employer recognition that ePortfolios may provide evidence of applicants' knowledge and skills, practical constraints related to technology and the time needed to review them are barriers to expanding their use (Klosowski, 2014). Even such, due to the learning outcomes associated with them, ePortfolios "increase employability and support learning that might contribute to it" (Cambridge, 2008, p. 245). In other words, they help students develop the learning outcomes associated with the high impact practices valued by employers. They provide a way for students to demonstrate competencies such as collaboration, goal setting, active learning, technological skills, and self-evaluation (Watty & McKay, 2016), all valued in business contexts.

Methods

Participants in this qualitative study included 105 students across three sections of an introduction to organizational behavior course required for all business majors. The sections represented three delivery modalities—face-to-face, blended, and online. Students were assigned to teams consisting of 4-6 individuals. Each team collaboratively created ePortfolio artifacts that demonstrated application of learning, reflections on learning, and evaluations of team effectiveness. In short, each team created a multiple-owner ePortfolio—one "used by a group of learners to present evidence of their academic growth through group collaboration" (Moretti & Giovannini 2011, p. 94).

While the primary HIP involved in this assignment was the ePortfolio, creating the ePortfolio entailed additional HIPs. It was a collaborative assignment that involved intensive writing and working with diverse others. All the elements of HIPs were present—the rubric and instructor grading reflected *high expectations for performance*; students *invested of time and effort* over the semester; they *interacted with each other and their instructor* on the content and its *application to the real-world*; they worked in *diverse* teams in terms of gender, ethnicity, culture, personality, and academic background; they received *frequent and timely feedback* from the instructor and peers, *reflected on their learning* (both course content and teamwork), and *publicly demonstrated competence* by sharing their ePortfolios. In the online section, all of this occurred virtually.

The purpose of qualitative research is to explore phenomena rather than test theory. It focuses on learning about participants' experiences; in this case, through students' documentation of their learning. Team artifacts were analyzed based on the POLC framework to

determine the degree to which students were developing managerial skills both through their engagement with course content and through its application in their teams.

The context for the study was a large, regional, open admission higher education institution. Table 1 provides demographic information for the institution and the school of business based on data from the institution's institutional research office. The most notable differences are percentages of male and female students, partnered students, and number of hours worked per week. The students in the introduction to management were representative of the school of business demographics.

Table 1: Demographics

	Institution	School of Business
Male	54%	70.6%
Female	46%	29.4%
Non-traditional	32%	31%
First generation	36%	35%
Married or domestic partnership	40%	48%
Dependent children	17%	16%
Working 21 or more hours/week	51%	62%
Working 31 or more hours/week	27%	35%

Triangulation for purposes of quality assurance (Trochim, 2006; Yilmaz, 2013) was incorporated in this study by examining multiple artifacts on different topics across three sections of the course taught using distinct delivery modalities. The artifacts lent themselves to rich, in-depth description of students' learning experiences (Trochim, 2006; Yilmaz, 2013). This was encouraged by the criteria in the ePortfolio rubric and detailed instructor and peer feedback.

The artifact data was analyzed manually by two individuals. This process ensured validity of the findings as the data was coded and categorized into themes and subthemes (Saldana, 2013). It allowed for comparisons and discussion about the extent to which students exhibited the managerial functions in the framework. It helped clarify where comments fit in the framework and which functions were dominant. Qualitative research emphasizes the transferability of conclusions (Trochim, 2006). While the findings cannot be generalized, schools of business and their faculty can learn from and apply them as applicable.

Findings

The team ePortfolio data provided considerable evidence that students were developing skills related to the POLC framework (Fayol, 1916). Each of these elements and its subparts are next explored with direct quotations from students that illustrate their competencies in the managerial skills represented by the framework. In some cases, the quotations illustrate the integration of functions, which is natural and desirable. When this occurred, a choice was made as to which category to place the quotation based on what it predominantly illustrated. The quotations are somewhat extensive in length and number in order to provide rich description in the tradition of qualitative research. Names in quotations have been replaced with pseudonyms.

The source of delivery modality is noted for each quotation. The quotations are representative of all modalities, however. As such, no attempt was made to ensure that an equal number of quotations was included from the different modalities. That being said, some of the best illustrative quotations came from the online section, and secondly, from the blended section, suggesting more extensive development of the functions for the teams in these courses.

Planning

Planning involves identifying strengths and weaknesses, establishing goals, determining what needs to be achieved, identifying action steps to achieve goals, setting deadlines, evaluating the effectiveness of planning, and taking corrective action. The student teams showed evidence of the planning managerial function by referencing how they set goals, evaluated planning effectiveness, addressed problems, and learned from ineffective strategies. Planning what needed to be done and by when and evaluation of what worked and did not in terms of the plan were particularly evident. The quotations in this section illustrate various aspects of planning.

The first quotation perfectly demonstrates the planning function, specifically determining a goal; creating action steps, deadlines, processes, and communication mechanisms; setting times and places for meetings; and monitoring individual progress. The team also comments on the positive results of their planning.

We decided to create a road map of how our team would successfully complete this course. This included creating deadlines for future projects, deciphering which training videos we would watch and in what order and when our next team meetings would take place and through which forms. (Ex: we decided a Skype call or conference call is a better form of communication versus meeting at the university, because only one of us has courses on campus.) Our team also decided because of how well our first google doc experience went, to create a second one to monitor everyone's progress on their sections. We asked that everyone have their parts in by Thursday night so we could review all sections to obtain the best possible score. Team six did lose a member late Friday night (whose section was not completed). This did put an extra course load onto one of our team members. Thankfully because we had planned ahead, this unforeseen problem was not a pressing issue. (online)

The next quotation demonstrates how team members collaborated to create and perform specific action steps to achieve their goal.

Our team completed the assigned training by Tuesday. On Wednesday, we collaborated via group text to verify that we had completed our sections of reading. We made sure everyone had completed the modules, understood their assignment, and started working on their respective sections. Each individual of the team designed their section of the assignment to match the overall tone of our project. Additionally, each member proofread other sections to check for grammar errors. (blended)

While this quotation focuses predominantly on planning, it also makes reference to roles in terms of responsibility for various sections of the artifact and for proofreading, as well as controlling in the sense that team members verified that work had been completed.

Other teams similarly utilized a collaborative approach to planning with an emphasis on assigning tasks and a final review step.

We worked together . . . to design an outline that was simple but would convey the necessary information. Once the outline was established, we assigned sections to be worked on individually. The team reviewed the completed project together online to look for spelling and grammar errors and make any necessary adjustments to the individual content. (blended)

In terms of reviewing each other's work, we set the expectation to have our sections in a day before they are due, this way we can review and help each other out if needed to make sense of our parts. This will help our team have a more cohesive artifact. (face-to-face)

For another team, reflection on goal achievement in terms of planning and its impact on success provided impetus for continuing effective practices.

Overall, we accomplished our goal of completing the artifact in a timely manner. We met a week and a half in advance and set clear expectations. We plan on communicating and setting good goals as a team to work towards the completion of the consulting report. By doing this, we will be efficient and clear as we complete upcoming projects. (online)

The following quotation illustrates how team members evaluated their planning and implemented an organizational strategy in terms of modifying responsibilities. Then they reviewed their actions related to planning and identified what they learned.

We looked back on the previous artifact along with the review and reflection so that we could see how we could improve going forward. We also changed around responsibilities to other members to try new things and ideas. While there was success in this venture, the one thing that hindered progress was unexpected time constraints and schedule conflict. In the end, some of the ideas were never implemented so that we could focus on other sections, but we did gain some valuable insight and ideas for how to handle future projects with scheduling in mind. (online)

Similarly, another team's reflection demonstrates how a review of their planning resulted in differentiated roles, which represents the organizing function. The quotation also illustrates additional aspects of organizing such as autonomy in decision-making, coordination, and specialization.

This week we decided to set better deadlines for ourselves as that was a big thing we went over in our reviews. Each individual took personal charge of their respective sections explained hereafter. Sarah worked through the analysis and different phases. Arthur put together our conclusion. Mark wrote the teamwork section and worked on final site design. Fred led our team to hit deadlines and submit before the last second deadline. Abigail led the discussion of what subject to focus on, as well as informing us of what the assignment was at the beginning of the week to prep us for our work. As each individual made decisions and took charge of their respective sections, we were able to get everything done in a timely manner and produce a high-quality end product. (online)

One team evaluated the effectiveness of their planning and decided on an organizational change, which was to establish set responsibilities for the different aspects of the artifact.

Throughout the week our team has continued to utilize our group text as a source for communicating quickly between each other. We did not however meet this week [in person] which is different from the past. This is due to our previous meeting where we planned a rotating plan, to assign tasks for each artifact in the future. It seems to have been successful so far this week, as well as alleviating some pressure from those who have a difficult time attending the meeting. Going forward we will continue this method and address any issues that may arise as it progresses through the semester. (online)

In sum, the quotations demonstrate various aspects of planning, and particularly, how reviews of planning effectiveness resulted in modifications to goals, processes, and deadlines, as well as to organizational functions such as roles and responsibilities.

Organizing

Organizing refers to the structure or framework within which work in an organization occurs. It entails the chain of command, decision-making, and job design, specifically job duties, responsibilities, and functions; coordination across units, autonomy; and a balance of specialization and task variety. Job design should be based on principles of empowerment, job enrichment, and teamwork. This function also focuses on making effective use of people's skills and talents. Some aspects of this function were more evident than others. Predominantly, students focused on roles rather than aspects such as autonomy, task variety, empowerment, or enrichment (with some exceptions), possibly due to the academic context in which they performed this function.

The managerial role of organizing was reflected in determining roles and responsibilities, delegation, and in some cases, rotating roles and responsibilities. The team represented in the following quotation had clearly defined roles and responsibilities that appeared to be working.

We have assigned everyone a week to bring an artifact to spread out some of the work and stay organized. When it's a person's week, they need to bring something that goes along with one of the reading topics. For this week's artifact, we had our leader choose the artifact and then together we watched the video and discussed ideas around communication and how we could use those to have more effective meetings. Our scribe took notes, as well as contributed to the ideas. We had our spokesperson and ideas person keep the discussion moving smoothly. This format worked out really well so everyone knew what to expect this time around as well as next time around. Now doing the first artifact and understanding things better with the eportfolio, we will be even better prepared for our next meeting. (online)

The next quotation illustrates additional aspects of the theme, specifically the determination of roles; however, it should also be noted that several elements of planning are evident such as deadlines, goals, and evaluation of goal achievement, demonstrating once again how the managerial functions are integrated.

As a team this week, we had our usual conference call where we decided who would take what role in the construction of this week's artifact. To accommodate our teammate's schedules, we communicated that we needed to have our call on Wednesday so that everyone was able to be on with us, and we were able to submit our work earlier. By taking a look at each teammate's needs this week, we were able to not only get our work

done but satisfy each other's schedule. On the call, we unanimously decided that we will alternate who takes on the polishing/design role, so each artifact has style. As with any team, we have some minor things to work on, like submitting our work on time to the polisher so that they can design and assemble the artifact. Aside from the little bumps in the road we were able to pull together as a team this week achieve our goals. (online) Several teams made changes in their roles as the result of reflection on their performance.

In the following quotation, the team drew comparisons between teamwork and artifact content (e.g., references to the bear and the video clips). These comparisons illustrate the team's ability to apply organizational behavior concepts.

We decided that our last artifact was very unorganized in the sense of meeting the requirements the first time therefore we agreed to have someone's job be to go through and make sure everything is in order before we submit. Johnny has chosen to take on this job. He represents the bear at the bottom of the tower; making sure the end goal is achieved. Finally, our group is a reflection of the "Good Teamwork" clips because each member is contributing in a meaningful way that will help us meet our end goal of a complete artifact not only successful by its grade but by the way we can teach our fellow classmates. (online)

The primary focus in the quotation is on roles and responsibilities with a clear identification of the goal of teaching others.

The next excerpt refers to the effectiveness of roles and specific strategies related to specialization and job tasks. This team also shows evidence of applying the concepts they have been studying.

We have been able to work really well as a team. Our scribe has been taking really detailed notes from every meeting and sharing them on a Google Doc so we are all on the same page before and after each meeting. After talking about leadership, we realized that in our own team, we have all gravitated to certain roles that fit our strengths and it's worked out really well. (online)

Additional aspects of the organizing function are chain of command, decision-making, coordination, and task variety in terms of rotating roles, which the following quotation illustrates.

Empowerment is a huge thing to have while working as a team. We want all team members to have a voice and not to feel as if they are any lesser than any of us. As a team we are always communicating through a group text chat. Bonita, our leader, always makes sure that we agree with either her idea or someone else's idea. Each of us either agree or suggest otherwise. This week Bonita chose to be the editor and the one who will submit this artifact. Taylor will oversee the application section, Andrea is in charge of the reflection, and Henry the concept and theory. We all talked and agreed to those positions, which Adriana suggested that we would rotate so everyone gets a chance. (online)

A quotation from a team in the face-to-face section also provides an example of role rotation. "The team agreed to split the tasks among members making sure we all received a new

assignment for the previous artifact. If someone was assigned application last time, this time they were assigned reflection.”

A category where extensive evidence was found was appreciation for diversity and recognition of the different skills, abilities, and talents that the different members contributed. The following quotation indicates how one team matched needs to a team member’s expertise and contacts.

Understanding personality types is essential for working cohesively as a team. Our team has several people from many different backgrounds and lives. We have tried to help match their positions within the team to the position that fits for that individual. For example, in the upcoming consulting project we have assigned Ernie to look at running the legwork when it comes to interviewing the company. This is due to his knowledge and relationships built with the other employees of the company. The value he brings for that position will provide the most return for us as a team. We have tried to take this approach the best we can with each individual on the team. (online)

The next quotation shows how a team clearly understood the advantages of diversity as well as the principles of autonomy and job design.

On our team, everyone follows their team roles. Each member of the team has different skills, so we can break down our work into small parts and let team members choose what they feel the most confident with. This way is very efficient in order to complete any assignment. All of our team members will come with some new ideas or great combinations. (blended)

The benefits of diversity were also prevalent in additional reflections as these quotations demonstrate.

Our team is a great example of diverse group. There are a lot of benefits to diversity in a team. For example, it helps our team make high creative decisions, come up with more valuable ideas, and increase our team productivity. Diversity in our group can be seen in different factors such as age, gender, cultural background, ethnicity, race, education, marriage status, and other. All of us are different, thus when we work together, we create something unique. Different backgrounds help us to see different aspects and come up with new thoughts and ideas. We can state that diversity is definitely a significant part of our team success. (blended)

We learn about the benefit of higher creativity levels when in a diverse workforce due to the variety of different opinions and perspectives that are brought to the table. As a group there are more decisions and alternatives to look deeper into as a team. (online)

A strategy for benefiting from diversity, particularly diversity of ideas, was listening, as demonstrated in the following quotations.

Listening in team situations is key to being effective at progressing towards goals and achievements. Within the team environment, listening to ideas of each team member can lead to successful and positive group experiences. Each team member brings their own

unique personality to the team to provide ideas and insights that can only be fully understood if each member of the team listens. (online)

As a team, we have the goal to take each group member's ideas into consideration and to actively listen to what each member of the team is saying. (online)

In sum, findings related to the managerial function of organizing were robust and represented a range of aspects such as roles, duties, coordination, decision-making, and autonomy with some evidence of attention to specialization and job variety. Particularly prevalent was the subtheme of diversity with a range of benefits identified as well as strategies to ensure that diverse perspectives were considered.

Leading

Leading entails setting the vision and mission of an organization, and communicating, persuading, influencing, and inspiring others to achieve the vision. Understanding people's personalities, values, and skills are critical to leadership as is understanding motivation in order to encourage employees' development and productivity. The findings related to this managerial function were the weakest of the four areas. Although communication was frequently mentioned in the reflections, the purpose of it was for information exchange and management (e.g., goals, tasks, progress, accountability) rather than for motivating, inspiring, and influencing, which are more closely associated with leading.

Evidence of the leading function in the team artifacts entailed appreciation for collaboration and what each team member contributed as well as achievement of outcomes, all of which were influenced by the leader. In this quotation, the team's focus on a goal or desired outcomes is particularly strong and serves as a motivating factor along with the leader's example and encouragement.

Each of us empower each other to do good in our classwork. As a team we have learned that empowerment leads to a positive outcome. Our team's overall attitude of doing well and getting the job done has prevented conflict within our group. The biggest role model in our team is our team leader. She encourages us and reminds us to stay on top of our work so that we can enjoy our weekend. Empowerment is meaningful because it improves employee productivity and job performance. (online)

The next quotation reinforces the idea of leading by example and also suggests that leadership was shared and collaborative as well as influenced by personality traits such as openness and agreeableness.

Leadership is a huge part of being on a team. Each team member has taken on leadership in a different part of this semester-long group project. Although we have had a mix of formal and informal leadership styles, our dedication to lead by example has given us great success. Having such a large group project to accomplish via the internet has been new to many of us, and we have all done a great job opening up to new ideas and being willing to try something that might fail. Each week we try to take the constitutive criticism from the previous weeks' discussion and implement those ideas in hopes of better our score from our previous artifact (online)

The following quotation also provides evidence of shared responsibility for leadership, and specifically for team members motivating each other.

To build a strong team, and achieve some goal is our common purpose. So to create a positive team environment is very important. Such as motivating our team members, because everyone is a part of this is team. And there is nothing about individuals, so let people get together and do our work as better as we can. (blended)

In sum, the leading function was the weakest of the four managerial areas with few comments focused on its elements. Those that did show evidence of leadership tended to feature shared and collaborative leadership as well as role modelling.

Controlling

Controlling entails performance standards, comparing performance to these standards, and taking corrective action as needed to ensure that goals are achieved. It focuses on procedures and compliance to procedures. The student teams showed evidence of this function in a range of ways that included comparing their performance to the rubric criteria used to grade their artifacts, using the team charters that they established at the beginning of the semester to determine if these were being followed or needed to be revised, and predominantly, by reviewing specifics about their performance and implementing needed changes.

With the latter area, there is some overlap in the quotations between the controlling and planning functions although these can be distinguished by considering the relevant elements—planning (goals, processes, action steps) and controlling (comparisons to performance standards). The selected quotations are contextualized. As such, they include references to planning and organizing. In this way, they also demonstrate how the functions complement each other. Comments related to the controlling function were not as prevalent as those for planning and organizing, but more evident than those related to leadership.

The first set of quotations illustrate a focus on the rubric standards and related feedback (instructor and peer) with the goal of improving the grade earned. One team indicated: “To continue improving, we have each taken separate responsibilities, but always check each other's work before submission to ensure that each team member has done their part and we feel that it meets the grading rubric” (blended). Two other teams stated had similar approaches:

After artifact two, we found that if we focus on the grading criteria and add our own style to the project that we will be successful. This week, our focus is again on the main grading criteria while implementing the feedback we received from our colleagues to be more concise with our content while adding more style to our design. (face-to-face)

This week, our team decided to focus our efforts on feedback that we have received from previous artifact projects. Particularly we will concentrate our effort to be more concise with our content and improve the design of our artifact so that it is simple and easier to read. We have found that by submitting our artifacts before the due date for feedback, helps us focus on what needs to be improved to receive a better grade. (face-to-face)

The next quotation illustrates how one team changed roles to focus on the grading criteria and also implemented a control mechanism, which the team called an auditing system, to improve quality.

Our team made major improvements with how we communicated and worked as a team. We met together during class to assign team roles, discuss content, and summarize team responsibilities. We decided to implement new team roles by assigning team members to each category of the grading criteria to ensure that we covered every point. We also decided to implement an “auditing” system which allows to have two editors to review our work before submission to make sure they check grammar and organization of ideas. The purpose of this was to ensure that we had easy and simple content showing what we learned. In conclusion, we will re-evaluate for the next artifact to make any necessary adjustments to focus on the content we would like to share. (face-to-face)

In another case, a team implemented individual reviews, goal setting, communication strategies, and deadlines in order to meet the grading criteria with the goal of improving artifact scores.

This week we decided to work a little bit differently in order to improve our scores. We discussed and reviewed each individual’s performance with the tasks that were assigned to see if anybody else could improve the tasks performance. We also set goals to establish what topic and deadlines to complete these tasks in order to submit it early and get feedback. We still communicated a lot through a group message and Google documents so that our team recorder would remind us of deadlines and tasks that have been completed. With that emphasis in mind, we are still driven to provide quality and concise content for our audience to read and meet the grading criteria. (face-to-face)

Team charters also played a role. One team compared their performance to the standards and norms they had set for themselves in their charter.

Updating the charter last week gave us an opportunity to identify the areas we can improve as a group. Referring to the new charter gave us clarity as we moved forward with our artifact. We were able to quickly decide our topic and the individual responsibilities through a text message chain. Our deadline was set for Friday at 6 pm. That way the team member responsible for design would have adequate time. We met all our goals this week except our goal to have our team meeting by Wednesday. This is something we will strive to accomplish in the future. (online)

Accountability was a prevalent area as teams examined their performance and how to take corrective action related to the processes they had established as part of their planning and organizing. One team indicated their strategy for accountability as “responding to all messages about projects that are coming due to ensure that our teammates are accountable for assigned work” (blended). Several teams focused on issues with procrastination as a result of reviewing their performance based on set criteria and to better control quality. The following quotation illustrates.

We have made it a goal over the last couple of weeks to not procrastinate so we can proof read our artifact and have a higher quality finished product. We have found this to be very effective. As a group we have done a great job on communicating with each other throughout the week to make sure everyone is doing alright on completing their part. (blended)

The following quotation provides evidence of the recognition that, for teams in the face-to-face class, additional time outside of class was needed in order control quality.

This time around, we have polished our strategies and it shows in the overall flow of the project and the higher quality of work. One strategy we should implement on the next project is the allocation of time to meet outside class in a comfortable environment to further discuss how to better the project. Face to face communication offers extra benefits to text messaging. (face-to-face)

Strategies related to the organization function were implemented in order to control and achieve higher quality in the artifacts. The following quotation demonstrates how this strategy was initiated by the team leaders. The quotation also demonstrates the integration of all the POLC functions.

For this artifact, the team decided to straighten our past mistakes in order to achieve a higher quality of work. The team leader gathered the team and offered suggestions on how to approach this project. The team agreed to split the tasks among members. To avoid making any mistakes, the team spent a longer time communicating back and forth on what is expected for this project. The team is also experimenting with task distribution in order fit the best possible person to the task. If someone handled application last time, this time he/she is handling reflection.

In sum, team reflections that evidenced the controlling function demonstrated how comparing performance to course standards resulted in the implementation of strategies representing managerial functions across all areas—planning, organizing, and to a lesser extent, leading. Teams also implemented the controlling function to set their own standards for quality and to make needed changes to accomplish goals.

Discussion

The findings indicate that students developed knowledge and skills related to the four management functions. Evidence was also found for several of the cross-cutting skills valued by employers (communication, teamwork, critical thinking, application of knowledge to the real world, and ability to work with diverse others). These findings illustrate to some extent that the cross-cutting skills complement effective performance of functions. The findings also clearly demonstrate that the functions complement each other and were used in conjunction with each other.

Some functions were more evident than others. Planning and organizing dominated, followed by controlling, and then leadership. This may have been due to the context—a university course rather than an actual workplace—and the nature of the assignment, particularly its short-term nature. Although each team selected one member to take the role of leader, and in some cases, rotated the role, that person did not have responsibility for some of the functions typically associated with leadership such as vision and mission nor did the leader have much formal authority. Also, the team leaders may not have felt responsible for motivating team members but rather saw their role as assigning and following up on tasks.

Similarly, the managerial function of controlling was somewhat less developed. Once again, this was possibly due to students not being comfortable setting standards and evaluating

each other. Students tended to focus on how to improve their scores, which entailed being responsive to peer and instructor feedback based on the rubric for the assignment. Improvements primarily entailed making changes in planning and organizing.

Few differences across modalities were identified. In many cases, however, artifact reflections for online teams were more developed and detailed in terms of strategies, particularly in establishing processes with tasks, deadlines, and roles. It may be that online teams recognized the need to be well organized and establish a strong structure in order to accomplish their tasks virtually. The online teams were also likely accustomed to the need for self-regulation (e.g., taking responsibility for factors that impacted their success), self-management, and self-assessment to be successful in an online environment; thus, they had some advantages in how they approached the assignment. Teams in the blended and face-to-face courses may have relied more heavily on meeting in class (e.g., not taking initiative on what needed to be done in between class sessions but waiting for a class session to coordinate with each other), and external motivation, reminders, and instruction from the teacher.

The assignment in some respects was inauthentic in the sense that certain functions were not as relevant as others. This inauthenticity could be addressed through class discussions and further training related to the leadership and controlling functions and how they could be actualized in the team context. Examples of issues identified in teams in previous semesters could be used as case studies with current students applying concepts to resolve them and simultaneously finding solutions to their own issues. Exploring this in more depth could be the topic of future research as could replicating this study in management courses in other contexts.

Conclusion

The results of this study clearly indicate that students developed managerial (and cross-cutting) skills as the result of the team ePortfolio assignment. Planning and organizational skills were the most prevalent followed by controlling and then leading skills. This can partly be explained by the academic nature of the class and the peer relationships among the students; however, the deficiencies can also be addressed through curricular changes.

Overall, the study demonstrated that team ePortfolios can help students apply and reflect on their learning, and as a result, improve and develop important workplace skills. The students exhibited highly desirable behaviors overall and ones that are critical in professional contexts. As such, schools of business should closely examine the advantages of ePortfolios as both a learning and an assessment tool.

References

- 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.
- 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://liferhacker.com/why-you-shouldnt-link-to-your-web-portfolio-in-your-jo-1529748370>
- Fayol, H. (1916). *General and industrial management*. Paris: Institute of Electrical and Electronics Engineering.
- 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.
- 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.
- 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.
- Zinger, L., & Sinclair, A. (2014). Starting an ePortfolio: A multi-disciplinary approach. *Contemporary Issues in Education Research, 7*(4), 249-252.