A Pre-Service Leadership Program Experiments with a Project-Based Learning Model: Analysis

of the Process, Products, and the Challenges the Instructors and Students Encountered

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Introduction

This paper presentation examines two instructors' efforts to use project-based learning methods in a pre-service leadership program. Markham, Larmer, and Ravitz (2003) describe project-based learning as "a systematic teaching method that engages students in learning knowledge and skills through an extended inquiry process structured around complex, authentic questions and carefully designed projects and tasks" (p. 4). A review of the literature on progressive pedagogies finds problem-based learning (PBL) and project-based learning (PjBL) are often discussed simultaneously. While quite similar, there are distinct differences, and for the purposes of this paper, it is necessary to note this difference. "The distinction between PBL and PjBL…according to the definition of Prince and Felder (2006) [is]…the emphasis in PjBL is on applying or integrating knowledge while PBL is on acquiring it" (as cited in Stefanou, Stolk, Prince, Chen, & Lord, 2013). The instructors revised a course where students are required to conduct a formal, standards-based evaluation of a critical issue in their school settings which will immerse students in integrating and applying knowledge. Therefore, the PjBL method is a more logical approach.

With the adoption of Common Core State Standards in many states, more teachers in PK-12 settings are adopting a PjBL model to deliver instruction. However, instructors in higher education are somewhat slower to embrace PjBL methods (Lee, Blackwell, Drake, & Moran, 2014). Pre-service leadership students are constantly grappling with countless, complex problems in PK-12 settings and want to gain knowledge and experience in how best to resolve them. Leadership programs must develop authentic, real-world learning experiences for its emerging leaders to allow them opportunities for developing critical-thinking and problem-solving skills relevant to the work they are preparing to do in PK-12 schools.

This paper presentation discusses how two instructors planned and facilitated a PjBL process in a graduate-level course delivered in an online learning environment. The Buck Institute for Education's seven PjBL design principles for instructors (Larmer, 2015) provided the frame for transforming a traditionally delivered course to one grounded in project methodology; they are 1) Design and Plan, 2) Align to Standards, 3) Build the Culture, 4) Manage Activities, 5) Scaffold Student Learning, 6) Assess Student Learning, and 7) Engage and Coach. To analyze how we implemented the revised course, we used the eight Gold Standards for Project-based Learning. They are 1) Key Knowledge, Understandings, and Success Skills; 2) Challenging Problem or Question; 3) Sustained Inquiry; 4) Authenticity; 5) Student Voice and Choice; 6) Reflection; 7) Critique and Revision; and 8) Public Product (Larmer, Mergendoller, & Boss, 2015). Included is our reflection of the creative processes to plan and implement PjBL methods, the challenges that emerged with practice, and the improvements needed.

Review of the Literature

There is evidence project-based learning (PjBL) methods were being practiced in higher education in 16th century Europe (Hugg and Wurdinger, 2007). Four centuries later, PjBL was a cornerstone of Dewey's (1900) progressive education theory in early 20th century America. Adderley's, et al., (1975) description of project-based methodology is appropriate to meeting learning needs in our 21st century educational settings. PjBL processes involve 1) identifying a problem and finding a solution; 2) taking initiative in a variety of educational activities either working individually or in a group; 3) producing an end product; 4) engaging in the work over an extended period of time; and 5) teaching shifts from lecturing to facilitating the learning process.

Engaging students in their learning process is challenging at all levels of education. Higher education is no exception and is often criticized for being out of touch with the "real"

world (Hugg and Wurdinger, 2007). Many professors in college classrooms are familiar with a common complaint concerning the relevancy of a course's content. Further compounding this notion is "students and educators in the 21st century are challenged by evolving employer needs, needs that require diverse, real experience" (Hugg & Wurdinger, 2007, p. 192). Implementing Dewey's (1900) progressive pedagogies lead to a student-centered learning approach (Helle, Tynjala, & Olkinurora, 2006) supporting authenticity and relevancy of the learning processes.

Stolk and Harari's (2014) study of projects-based environments in higher education settings found motivation is a significant predictor of students' engagement in high-level cognitions. When students are able to connect theory to practice, they are better able to understand the relationship between theory and their actual 'lived' experiences and are more prone to sustain motivation throughout the learning process (Brown & Freeman, 2000; Hugg & Wurdinger, 2007; Pithers, 2000; Pintrich, 2004). Cognitive benefits generated from engaged pedagogies (Edgerton, 2001), such as PjBL, includes deeper levels of student engagement, critical thinking, problem solving, reasoning, elaboration strategies, metacognition strategies, and skill transfer (Chick, Karis, & Kernahan, 2009; Donnelly & Fitzmaurice, 2005; Richmond & Hagan, 2011).

The efforts of two instructors in a leadership preparation program to develop and facilitate a project-based learning experience in one of its courses is presented in the following narrative detailing the creative process using PjBL methods for planning the class, followed by a discussion and reflection of the challenges with implementing the PjBL methods and our ideas for improvements.

Redesigning a Course Using Project-based Learning Methodology

Our fundamental goal was to provide our pre-service leadership students with a robust and rigorous learning experience, particularly considering the class we chose for our PjBL experiment is an online course. The course, Program Planning and Evaluation, is a requirement for earning the Educational Specialist degree. We present our problem then discuss our creative process to resolve the problem using the Buck Institute for Education PjBL principles (Larmer, 2015) to frame our work.

The Problem

When the course was previously delivered, students were instructed to evaluate a program in their school. Oftentimes, programs students were choosing to investigation were not ones to significantly contribute to the overall performance of the school. For example, some students would choose to evaluate a computer program their school had purchased. The target of the evaluation and the results of the evaluation were not in-depth neither broad enough for their investigation to have much effect on overall school improvement. The overall low-level performance on the major assignment was an indication our students lacked motivation and did not view the course relevant to their leadership growth. In fact, the major assignment was most often treated as simply a course requirement to earn a grade. The lack of depth in students' work necessitated the shift from a traditional method of teaching for this course to a project-based approach.

The PjBL Method

One of the first things we did when we were revising the course was to broaden the scope of the evaluation target. We made the decision to change the focus from evaluating a program to investigating a critical issue. The major project of this class involved students identifying a critical issue to be addressed in their schools (see Appendix A). Once students identified the

critical issue they wanted to explore, they conducted a formal, standards-based evaluation, in which, the results informed decisions that led to better schooling experiences for student, families, educators, and/or communities.

Presented below are the Buck Institute for Education's seven principles for instructors to consider when designing a PjBL classroom (Larmer, 2015). The principles provided a frame for our creative processes in building and facilitating learning processes using PjBL methods. Each principle and its description is presented followed with how we planned to apply the principle in a PjBL environment.

Design & Plan

Brief description: Create or adapt a project, plan it from start to finish while attending to the need for students to have their voice and choices throughout the project.

Planning to apply the principle: We chose to adapt the delivery of our course, Program Planning and Evaluation, from traditional, teacher-centered methodologies (i.e., lecture, textbook, exams, essays, etc.) to student-centered, project-based methodologies. We shifted the focus from what we, the instructors, would be preparing and doing for each class session to what students would be engaging in during and in between class meetings. In the planning phase, we focused on providing students with as much voice and choices as possible with the project while balancing this with keeping students moving forward in a timely manner.

Principle 1—Align to Standards

Brief description: Draw from and include concepts contained in subject-, disposition-, and skills-based standards when planning the project.

Planning to apply the principle: Being a pre-service leadership preparation program, the course objectives are aligned with the ISLLC and ELCC standards for disposition- and skills-

based standards. Additionally, the focus of course is on evaluating our educational programming, the subject standards of program evaluation established by the Joint Commission Standards for Program Evaluation (1994) is essential to evaluating the critical issue.

Principle 2—Build the Culture

      Brief description: Facilitators of PjBL develop an environment of high expectations for students to practice autonomy, focus on developing their own learning, actively seek answers/solutions to question/problems, practice collegiality, and produce quality work.

      Planning to apply the principle: Building a culture of high expectations is a challenge, particularly so in an online learning environment. We used Blackboard (Bb) online learning systems to deliver instruction. Building community was a priority, so we purposefully set the stage with a welcome page containing information about the class and expectations for learning. To begin developing our community of learning in Bb we created a Discussion forum called, 'Our Cyber Space to Get to Know One Another,' and asked students to introduce themselves and to respond to and engage at least two members in the class. We used Bb tools such as discussion forums and group tools for planned activities to create our learning community. Expectations were provided in the learning modules and were shared during orientation. We created a learning module called 'Getting Started' with preliminary information and reading materials. We then asked students to collectively brainstorm in a discussion forum and compiled a list of critical issues/needs in today's schools that are barriers to effective teaching and learning (see Appendix A). The purpose of this brainstorming activity was to assist students in 1) generating ideas around issues to investigate in their respective schools, and 2) developing collaborative partnerships to complete the course requirements. Next, we used Bb Collaborate, a virtual classroom (used throughout the course for all synchronous class meetings) for an orientation and

group discussion of the coursework, expectations, and the identified critical issues. These preliminary efforts helped to set a tone of high expectations, established collegiality among students and instructors, and fostered a shared purpose and common language.

Principle 3—Manage Activities

Brief description: Instructors in PjBL environments provide structure where students are able to organize and manage their work, schedules, time, and other resources, creative processes, and publishing/sharing their products.

Planning to apply the principle: In addition to the typical class schedule, we created a companion outline (see Appendix B) divided into two major tasks: Part 1: Planning Your Evaluation Design and Part 2: Conducting the Formal Evaluation and Producing the Report. We developed a class schedule to organize specific segments of the outline and the timeframes for when items were to be submitted for formative feedback (checkpoints). Multiple resources (university library services, government reports, professional web sites, etc.) were made available in Bb Learning Modules. Students were expected to create a formal evaluation report to share with a targeted audience who could include administrators, teachers, parents, or students in their schools.

Principle 4—Scaffold Student Learning

Brief description: Facilitators of PjBL classrooms use an assortment of instructional lessons, strategies, and tools to support students in meeting the goals.

Planning to apply the principle: Scaffolding student learning has to take into consideration the density of course content and the various adult learning styles and needs. We wanted to use selected Bb tools to support and maximize students' interaction with 1) the content, 2) with each other, and 3) with us, the facilitators. For students to interact with content,

we organized written instructions, reading materials and resources, and links to discussion

forums, assignment tools, etc. in learning modules. To support students interacting with each

other, we used guided, reflective discussion forums, group tools, and the virtual classroom. Tools

used to facilitate interaction between students and the instructors were the assignment tool,

discussion forums, the virtual classroom, email, and phone calls. We created an open discussion

forum for students to freely communicate and post links to sources they found. The Written

Report Checklist was used, not only as a planning guide for a student's/teams' work as we

progressed through the project, it was also used to continually inform our lesson development for

the synchronous class sessions. For example, when we moved into dense content, we

acknowledged the need to use lecture-based teaching methods for class sessions. However, these

strategies were planned to capitalize on 'teachable moments' at a time it would have the most

meaning for students. As we planned, we developed steps and timelines along the way to help

students move forward with their projects, as well as keeping the focus on the end product.

Principle 5—Assess Student Learning

Brief description: Facilitators of PjBL use formative and summative assessment in

addition to integrating self- and/or peer-assessment of the work.

Planning to apply the principle: Ongoing formative assessment of the student's/teams'

product in progress was provided in 'chunks;' that is, on the class schedule, individuals or teams

would submit a draft of a section on the course outline for our feedback. We developed a student

survey based on the Joint Commissions Standards for Program Evaluation (1994). Students were

asked to choose one of the following responses in regard to how they addressed the standards in

their evaluation process: 1) was addressed, 2) partially addressed, 3) not addressed, or 4) not

applicable. We used a rubric based on the ELCC/ISLLC standards for the summative assessment

to provide feedback for disposition and skill development. Rubrics for discussion forums and for class participation, in addition to Bb student activity reports were used to keep students informed of their progress (See Appendix C). We provided steering papers for samples demonstrating higher- to lower-levels of performance for students to self-assess their work using them to make revisions and improvements as needed.

Principle 6—Engage & Coach

Brief description: Facilitators of PjBL learn and create with students in addition to building skills, encouraging progress, praising, redirecting, and celebrating with students as needed.

Planning to apply the principle: Because students and teams were addressing a variety of issues in multiple school settings, we devoted time during our virtual classroom for engaging students and coaching purposes. Each live session started with students sharing what they accomplished, what they were learning, and questions that emerged. The sessions would end with a preview of what students would need to engage in before the next live session. Students served as coaches for each other in discussion forums as they shared their progress, problems, and findings. These experiences provided us opportunities to learn from one another as the evaluation of the critical issue developed over the semester.

Using the Buck Institute for Education's seven principles as a frame for designing a PjBL learning environment (Larmer, 2015) was our first step. Each instructor facilitated a section of our newly redesigned Program Planning and Evaluation course during the spring 2015 semester. In the next section, we will discuss how we implemented the PjBL model and the challenges we encountered.

Implementing the PjBL Method and Our Challenges

To frame our analysis and reflection of how we implemented the project-based learning experience, we drew from the Gold Standard PBL: Essential Project Design Elements (Larmer, Mergendoller, & Boss, 2015) for this discussion. There are eight design elements; each are presented with a brief explanation, followed with our reflection and the challenges we encountered.

Student Learning Goals

A well designed project requires well-designed goals. At the center of the Gold Standard PBL model are student learning goals organized into two parts.

Key knowledge and understandings and key success skills. The goals for knowledge and understandings are developed from the subject matter's fundamental concepts and content standards. The goals for success skills, also referred to as '21st Century Skills,' are goals to develop critical-thinking, problem-solving, collaboration, and self-efficacy skills, as well as discipline-specific professional skills.

How we addressed the design element. The purpose statement on the syllabus for the course served as the overarching goal for the class:

> The purpose of the course is for candidates to acquire the knowledge, skills, and dispositions to conceptualize, design, and implement a formal evaluation of a critical issue that could be impeding teaching and learning in an educational setting. Candidates will use appropriate qualitative and quantitative tools to gather data to assess the effects of the critical issue on teaching and learning and to inform decisions for improving practices.

Although not perfect, we consider the syllabus' purpose statement a reflection of what we aspire for our students to accomplish.

Our challenge. The course objectives should be revised to address more directly key knowledge and understanding and key success skills. While we can make an argument that the objectives contain the underlying concepts, they need to be more direct in guiding the work, feedback, and assessment processes. For example, most of the students' responses to their survey results in addressing the Joint Commissions Standards were not discussed in-depth in the final product. Revising the objectives to bring more focus to the standards will lead to better connections in our planning, implementation, and assessment practices.

Essential Project Design Elements

In addition to the first design element above, Setting the Learning Goals, there are seven remaining PjBL essential design elements. They include a challenging problem or question; sustained inquiry; authenticity; student voice and choice; reflection; critique and revision; and a public product (Larmer, Mergendoller, & Boss, 2015). Following is a brief description of each element and how we addressed it.

Challenging problem or question. In essence, the challenging problem is what the project is all about. It is open-ended enough to challenge and engage students to investigate, explore, and search for solutions.

How we addressed the design element. Adapting the delivery to use a PjBL method to deliver content in our Program Planning and Evaluation course now requires students to identify a critical issue in their schools that may be having a negative impact on student achievement. To begin our focus on identifying a critical issue to study, students were asked to engage in a brainstorming activity to identify critical issues present in their schools (see Appendix A). Focusing on a critical issue leads to a broader view of schooling (as opposed to focusing on individual programs). Students began to shift their view of school and develop more of a

systems-theory approach during the project. This in turn helped students to gain a broader sense that their investigation was meaningful work and could make a difference in their schools. Once there was agreement between the student and his/her school leader on the critical issue to be studied, students were asked to articulate two overarching questions that would guide and focus the rest of their investigation.

Our challenge. Part 1: Planning the Evaluation Design required students to design their evaluation. This would then serve as the blueprint for conducting the study (see Appendix B). The first step in the planning process was to develop the research questions, which is a very complex exercise in and of itself. Several of our students had difficulty creating their overarching questions and continued to struggle as they progressed through the planning stage.

Sustained inquiry. A sustained inquiry implies not only a deeper look, it also implies the issue will be explored over an extended period of time. When presented with a challenging problem or question, engaging in sustained inquiry lends itself to continual, ever deepening questioning and subsequently a search for potential answers from a variety of traditional and non-traditional sources of information. These sources are most likely field-based, action-research oriented, and specific to the focus of inquiry.

How we addressed the design element. As previously stated, students developed their overarching questions (typically two). To continue 'drilling down' to bring a narrower focus for their investigation, students also developed two sub-questions for each of their overarching questions. The sub-questions were then used to plan details for the investigation by completing information in the Evaluation Design table (see Appendices B and D). The design of the evaluation included activities for obtaining the data, the data sources, data collection methods, who would be responsible for gathering data, how the data would be analyzed, and who would

use the results of the investigation.

   Our challenge. Not only did students struggle with developing their research questions, they continued to have difficulties keeping focused on their questions as they thought their way through each step of the Evaluation Design table (see Appendices B and D). For some students, there was a tendency for randomness across all the columns. For example, one student's sub-question was seeking teachers' perceptions of the issue being investigated, but plans for how to gather perceptions were not detailed in the remaining columns, clearly demonstrating a disconnect with what the student wanted to know and how they would get information.

   Authenticity. Students are more motivated to be fully present in the learning process when experiences are perceived to be relevant to their needs and to the world in which they live and work. Authentic projects can be conducted in real-world contexts, use actual processes, tools, or performance standards present in a real-world setting, have an impact on others, result in some thing or service benefiting others, and/or contribute to a student's sense of personal relevancy when it addresses an aspect of their own identity in meaningful ways.

   How we addressed the design element. Students were asked to consult with their colleagues and leaders in their respective schools as they contemplated the critical issue they wished to study. This approach not only provided students with opportunities to have a strong voice and meaningful choices within the project, the critical issue they collaboratively chose to focus on brought a much deeper sense of relevancy to the process. As students' knowledge and skills grew, it only reinforced the authenticity and relevancy to their emerging leadership.

   Our challenges. Knowing they would be sharing their final product with their targeted audience, students gained a much stronger sense of purpose and accountability. We facilitators considered this a good problem to have. However, this sense of purpose and accountability

contributed to high anxiety for some students especially as the end of the semester neared. Students felt they would not have the time to complete the investigation. They were right to be anxious about finishing a formal evaluation in a single semester, and we had to make some adjustments to the expectations for the final product.

Student voice and choice. Providing student with opportunities to have a say and choices in the learning process leads to an increased sense of ownership for their personal learning and growth. They acquire a sense that their thoughts are valued and this can lead to students seeking higher levels of learning; they want to learn more. When students are fully engaged in the learning process, they work harder and engage in higher levels of cognition. Additionally, students will tend to be more fully invested to persevere and complete the final product.

How we addressed the design element. We described the way students would have a voice and choice in selecting their critical issue. Additionally, students were given a choice to work individually or in teams. They could decide what activities they needed to obtain data, who would be involve in collecting the data, how they would analyze and present their results, and decide on and suggest improvements to practices in their schools. Also, they had a voice in how they wanted their final product to be presented and with whom they would share the final report. Students were strongly encouraged to make a proposal to a state conference this coming school term to share their investigation.

Our challenges. The instructors made a conscious decision to not use textbooks as the main resource in the class (two textbooks were used as references only). Because of this decision, we developed the Written Report Checklist. A concern during both the PjBL planning and implementing phases was in creating a balance between students' freedom of choices and

adhering to a structure for focusing the work and to make steady progress toward the end

product. We tried to leave it open-ended enough where students could exercise their freedom to

express their voice and choices and at the same time produce a final product that adhered to the

Joint Commission's Standards (1994) and the components that must be present in a professional,

formal evaluation report.

Reflection. When we reflect, we are learning. Students and teachers should reflect

continually on what, how, and why they are learning. Reflection can be informal and

spontaneous or can be formalized through such processes as presenting at a conference. There

are multiple ways to reflect: providing formative feedback, keeping learning journals, checkups

and dialog in class, and engaging in dialog with colleagues. Reflection is a critical skill for self-

efficacy.

How we addressed the design element. Opportunities for formal and informal reflection

were built into the delivery of the course. We started each live class session with a look back at

what we had done and learned since the previous time we met. In between live class meetings we

used the discussion forums to respond to reading materials and reflect on how the information

informed our practices with learning and doing a formal evaluation. When student posted their

final product in their electronic portfolio, they provide a reflection of the overall process, what

they learned, and how the experience informed their growth as a school leader.

Our challenge. This is one area we believe to be a strength in our delivery of this course.

Our challenge is to keep a record of reflections over time in order to look for trends that can be

used to inform our practices and to make improvements with the project-based processes.

Critique & Revision. Critical to the PjBL model is high-quality student work. To

accomplish this critical goal, ongoing, constructive feedback given by both instructors and peers

is necessary to realize high levels of work. Rubrics can be used for guiding and assessing performance, in addition to being used to assess overall knowledge and skill development. Formative feedback is critical for learning along the journey. Seeking outside sources to review and provide feedback brings real-world relevancy to the work.

   How we addressed the design element. We devoted scheduled time for students to talk about their evaluations in our live class sessions and collectively gave feedback. They posted their work in both Bb assignment tool for instructor feedback and in the discussion forums for peer feedback. Facilitators and students asked questions, encouraged each other, offered suggestions, and praised one another. Altogether, we collectively engaged, coached, and learned from and with one another. We provided steering papers representing a highest-level score, a high-level score, a mid-level score, and a low-level score for students to use to gauge their level of work. We used rubrics, Bb student activity reports, formative feedback, and summative assessments in our quest to produce high-quality work. Also, as noted above, we encouraged students to submit proposals to state conferences for outside peer review of their work.

   Our challenges: The tyranny of time is often a barrier for us (both the facilitators and the students) in providing the kind of detailed feedback needed for continuous development and growth. Students are supportive and encouraging to their peers, but they are not inclined to offer a critique. They left that to the facilitators (understandably).

   Public product. A product can be an artifact, a decision, or a solution. A public product is a powerful motivating factor for producing high-quality work. The product engages key shareholders in meaningful discussions that help create a learning community (as opposed to a dialog just between an instructor and student). A public product is an effective way to communicate to a broader audience throughout the community.

How we addressed the design element. From the beginning of our planning process with PjBL methods, our non-negotiable expectation was that the facilitator of the course would not be the intended audience for the final evaluation report. This is one of the primary purpose for why students were to identify their target audience at the beginning of their journey to investigate their critical issue. The facilitators' role was to serve as editors and critics along the way.

Our challenges. We need to create a system for follow-up checks after the class ends. We need to know the impact the investigation has on the practices and outcomes in the school. If the process continues, it is important we know how has the results informed leadership decision-making and problem-solving skills in school settings.

In the next section, we discuss improvements needed to the process that emerged after implementing the redesigned course after one semester. The needs will be presented and a plan of action to improve the processes will be discussed.

Improvements Needed in Our PjBL Design and Delivery

After one semester of facilitating the learning in our revised course we identified the following initial improvements we need to make with each design element:

1. The first need is to revise the student learning objectives in the syllabus to reflect key knowledge and understandings and key success skills. The course syllabus objectives will be reorganized to reflect these two key areas. This will give us a better base for guiding and assessing students' performance and work.

2. Students need more support with developing their overarching questions. We will need to provide better resources, samples, guidance for students before they submit their overarching and sub-questions for feedback.

3. Increase discussions and support to improve students' work with Part 1 planning

   processes. If the first three design elements, aligning content to goals, developing

   challenging problems or questions, and a sustained inquiry are not well supported, the

   rest of the student's evaluation will be disjointed

4. Because we have developed processes to maximize authenticity, we now know we

   need to anticipate and plan for ways to help our students manage anxiety.

5. Creating the balance between students' freedom of choice and adhering to a structure

   for the work needs to be assessed. We will need to formalize a method to study this

   issue and gather data to inform our decisions/planning.

6. Reflection is crucial to our learning processes. We need to develop a systematic

   process for collecting and organizing reflective conversations so we can analyze them

   for patterns and trends and make data-informed decisions to improve course planning

   and implementation.

7. Students tend to avoid critique when giving feedback to each other. They are very

   comfortable with cheerleading, but avoid comments that may have a negative

   message. We need to coach, model, and encourage students to develop their skills to

   give professional critique for their peers in ways that support and foster collegiality

   and community.

8. Now that we have delivered the revised PjBL course, we need to develop a process to

   follow-up with students; we need to know how the final product was received, used,

   and if the investigation continues.

9. Finally, we need to develop methodologies to conduct an empirical study of the
    effects and outcomes of developing a PjBL design in a pre-service leadership
    preparation program.

Conclusion

We have much to learn about the effects of a PjBL design on our students' acquisition of
knowledge and skills and the impact students' investigations may have on their schools. Future
leaders come to us wanting to make a difference in PK-12 settings. We owe it to our emerging
leadership students to develop and equip knowledge and skills to make a real difference in their
schools. We believe PjBL methodologies will better prepare our emerging leaders to do well the
work they aspire to accomplish. While we have just started focusing on the PjBL delivery
method, we believe we are moving in a direction supporting better knowledge and skill
development for our pre-service leaders.

The sample end product in Appendix D is the results of two students working as a team.
They were not in the same section; Student A. was in one facilitator's section and Student B. was
in the other. We end this discussion with their final words:

This has been a great experience working with B. Student. I am very thankful that you allowed us

to do this project as a team. So far this has been my favorite assignment during this educational

process.~ Student A.

This assignment was relevant and the benchmarks assigned were great for keeping me on task. I

appreciate Mrs. Stack's willingness to continually look over my draft. This is the first class I

have ever had where the instructor went that far above and beyond. This took the guess work

out of the project and the worries of "Am I heading in the right direction." With that stress gone,

I could focus more on the critical issue I was researching.~ Student B.

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