

**Issues within the Educational Culture  
(EDUC221)  
Problem-Based Learning Course Portfolio**

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### **Introduction**

A revolution has been taking place in education since the latter part of the 20<sup>th</sup> century, stimulated in part by studies by Goodlad (1984) and others, the educational standards movement, and current brain research. Educators have become acutely aware of the need to help students become more engaged in the learning process in order to facilitate authentic learning and deepen critical thinking and problem solving abilities. For teacher educators, this becomes even more significant. We must educate our students so that they have a deeper understanding of educational issues, child development, diversity of learners, and strategies that promote learning. At the same time, we must help them learn to apply effective learning strategies in their classrooms.

Problem-Based Learning has emerged as a way to accomplish these goals. Torp & Sage (1998) describe a PBL curriculum as providing “authentic experiences that foster active learning, support knowledge construction, and naturally integrate school learning and real life, as well as integrating disciplines” (p. 14). This is the way that I want to help my students view real issues in education-to help them have authentic experiences with issues that might otherwise seem irrelevant, provide the opportunity for them to construct their own knowledge about the issues, develop their own knowledge about the issues, develop their own informed conclusions, and integrate their university studies with the real life of teaching. I want them to begin to explore and care about many of the issues that will be a major part of their professional lives for many years to come. I also want to model teaching strategies that engage students in active learning.

### **Course Design**

The design of this course has evolved through the last six semesters. When I originally designed the course, I decided that the entire course should be PBL. Students researched every aspect of the course content. All students researched every issue and made multiple presentations to the class. This was tedious and boring. So I re-evaluated.

I now take a completely different approach to introducing the class, starting with a learning preferences inventory developed by 4-MAT. I use the findings to help students understand themselves as learners and to point out the different learning preferences that they will have in their own classrooms. We discuss the idea that they must teach to each preference so that every learner is comfortable at times and stretched at other times.

Applying this concept to my own teaching, I reflected on the possibility that some information might be delivered more efficiently and effectively by the instructor, who can explain and help students make connections with information for which they have no background.

I developed PowerPoint lectures on the history of education (complete with video clips) and on the philosophical foundations of education. I use 10-minute clips from three commercial movies to help the students review and reflect on teaching philosophies. For each of these areas, I assess knowledge with a traditional test.

For the deeper educational issues, I designed PBL problems. I want my students to engage with the content of these problems. I want them to see the political reality of funding for education the fact that virtually everyone acknowledges that adequate funding for the education of all children is important but that no one seems to be willing to make the hard choices necessary to realize it. They must come to this understanding on their own. Sharing my beliefs is of no value to the students; it is their own understanding and passion that will determine their future actions.

I want my students to see that not all people consider education as a profession, to wonder why this perception exists, and ask how they as teachers can change it. They need to see that tenure has positive and negative aspects and to question what educators can do to bring about reform. It is critical that they anticipate the diverse population of learners in their classes and begin to consider how they will meet the needs of all of these children. I believe that engaging them in problems with a real-life context will help them to become involved in the issues of their chosen profession and will help provide focus as they move through their education program.

### Sample Problems

Students investigate three problems during the semester.

#### Problem 1

For the first set of problems, I gave each group a different issue. Their ultimate product was a class presentation and an informational handout for the class. Students understand that they are responsible for presenting the information to the class in such a way as to create an environment conducive to learning. They are responsible for depth and breadth of information and for quality of the presentation. The problems cover a variety of educational issues. One group must examine the issue of tenure and defend the current plan or make a recommendation for redesign. Another group focuses on teaching as a profession, and another the diverse populations of learners in a classroom. Two groups debate the issue of vouchers.

For each of these, I have written a problem placing the students in the role of a first year teacher or a university student who is planning to teach. I put the problem into a folder along with current newspaper articles that help to make the issue "real" to the students. I used an article discussing our current governor's plan to overhaul tenure and an editorial from the teachers' organization opposing the plan. I included an editorial that asked the question "Why don't our best and brightest go into teaching?" I included a published debate between two educators on whether or not inclusion is a sound education plan. I used President Bush's education plan and the opposition to the voucher component. The slant of the problems and the articles change as the political climate changes and the issues take a different focus.

#### Debate Peer Evaluation

Group: \_\_\_\_\_

Debate: \_\_\_\_\_

Please rank this debate on the following scale:

Did not seem well prepared	Seemed prepared, but not challenging	well prepared, clear and challenging
1	2	3

1. Debaters presented clear and reasoned arguments	score
2. Arguments were based on facts/data	
3. Debaters appeared to be knowledgeable about both sides of the issue	
4. Debaters were able to rebut arguments	
5. Debate was interesting and informative	

Based on the arguments presented in this debate, I am \_\_\_\_\_ for \_\_\_\_\_ against vouchers.

Arguments that convinced me:

- 1.
- 2.
- 3.

Comments:

Evaluator: \_\_\_\_\_

Date: \_\_\_\_\_

### Presentation Peer Evaluation

Group: \_\_\_\_\_

Debate: \_\_\_\_\_

Please rank this debate on the following scale:

DID NOT SEEM WELL PREPARED	SEEMED PREPARED BUT NOT CHALLENGING	WELL PRPEAPRED, CLEAR, AND CHALLENGING
1	2	3

1. ISSUES WERE PRESENTED CLEARLY	SCORE
2. Issues included were based on facts/data	
3. Presenters appeared to be knowledgeable about issues	
4. Presenting provided new and useful information to me	
5. Presentation was interesting, informative, and creative	

Points I learned from this presentation:

- 1.
- 2.
- 3.

Questions I have:

- 1.
- 2.
- 3.

Comments:

Evaluator: \_\_\_\_\_

Date: \_\_\_\_\_

### Problem 2

The second problem centers on education funding. This problem has evolved through the years. It began as a debate on the lottery as a source of funding for education when a lottery proposal was up for a vote in Alabama. After the vote and the failure of the lottery, the problem centered on the question of "How will we fund education now that the lottery proposal has failed?" The problem keeps evolving with the current political focus on writing a new constitution and how the constitutional question impacts taxation and, thus, educational funding. For this problem, I include an editorial from *The Birmingham News* that asked citizens of Alabama to send in ideas for funding education. The product for this problem was an editorial or a letter to the editor with a thoughtful proposal. The day the editorials are to be turned in, we sit in a circle around the room so that students in each group can read their proposals to the class and respond to questions from classmates.

### Problem 3

To introduce the third problem, I arrived early to class and covered the tables with newspapers from the past few years. These papers have the published standardized test scores of schools all over the state and the report card scores for every school in the state.

### Report Card Mania

You are a first year teacher in grade [your team can decide]. It is Tuesday afternoon, and faculty members are sitting in the library ready for this week's faculty meeting. Suddenly, Mr. Andrews, the principal enters; a solemn look on his usually cheerful face. He is holding up a copy of the article just published in the local newspaper-the report card grades for all public schools in the metropolitan area.

"I'm certain you have all seen this article with our school's grade of a C-. I have been on the telephone this morning with Dr. Simple who is very concerned about our score. It makes us all look bad. I am giving you a copy of the memo he sent out this morning. I want you to work together on your faculty teams to come up with a plan for how your team will improve test scores next year."

Everyone is silent for a few minutes. You think about your teacher preparation and how much you have grown to believe in the importance of each child's growth and development and of involving students in learning. You are determined that your presence will make a difference and that your ideas will not be dismissed as insignificant. At the same time, you know that parents often have very definite ideas about what school should be, and you are coming to understand the political implications of "test scores."  
"Well," you ask your team, "What is the best way?"

### Product

You will produce a 2 to 3 page written plan discussing how you will approach teaching your students in order to accomplish your team's goals.

Reports will include but not limited to the following:

1. Team goals  
What do you want to accomplish with these students next year?
2. Team philosophy  
What do you believe about how children learn?
3. Learning theories that are the basis for how you will approach the teaching process
4. Types of curricula that are most appropriate
5. Some teaching strategies you will use

Memo from the Superintendent

SOUTHERN DISTRICT MEMORANDUM

To: Area Principals  
From: Sam Simple, Superintendent  
Subject: State Report Cards  
Date: October 8, 2001  
cc: Supervisors, Southern School District

By this time, you have all received the scores from the most recent state report card. As you know, my goal has always been to assure our parents and the community that we are doing a good job by raising our district scores. We want our children to be the best in the nation.

To those of you whose scores have shown improvement, I offer congratulations and remind you that the job is never done. To those whose scores did not go up and especially those whose scores declined, I want to reiterate my position. As I told you when I took office, employment in this district is assured by excellent test scores. I expect each school to create a plan for improving scores. I look forward to having those in my office no later than October 19.

**Course Management**

Each semester I use the results from the learning preferences inventory to place students in groups. I am intentional about creating groups with students from each learning preference. We talk about the strengths each should bring to the group as well as how groups should function. I make a tent card for each student to help me learn their names, quickly check attendance, and to designate groups.

Each day as a reminder, I outline on the board the following:

*What do we know?*

*What do we need to know?*

*What issues are emerging?*

*Where will we find more information?*

Each group is required to move through the problem solving process with one person in each group assigned as a recorder. I move around the room, listening to the discussions of each group and asking questions to help them clarify ideas and/or think more deeply about the issue.

The area in which the class meets is adjacent to a computer lab where students can work in groups or individually. We also have small group rooms available with Internet connections. These are especially helpful when students are writing papers or planning presentations.

I try to model facilitation for my students in ways that they might not think of as facilitation but they can emulate in their classrooms. I provide a list of Internet sites and a wide variety of print resources that the students can use to begin their research.

I also allow students to use the class time to visit and talk to experts who can provide perspectives on their problems. When they ask, I will help them to make connections in the education community.

### **Issues in Education Thesis**

Issues within the Educational culture [EDUC 221] is a 4-credit course that is required of all education majors prior to admission into the teacher education program. The majority of students take the course in their sophomore year. However, the enrollment nearly always includes some freshmen, juniors, and a few senior level students, that have decided to change their majors to education. Typical enrollment in the fall is 36-40; spring enrollment is usually 45-60.

The Issues Course (EDUC 221) is blocked with EDUC 222 from 8:00 a.m. until 10:30 a.m. Monday, Wednesday, and Friday for seven weeks of the semester and EDUC 222 during the same time period for the other seven weeks. In the spring when enrollment is greater, we usually divide those enrolled into two sections so that half the students take Issues during the first seven weeks and half take it during the second seven weeks.

The course has evolved from the traditional Introduction to Education course. Course content includes historical and philosophical foundations of education as well as current educational issues. Issues include tenure, professionalism, diversity of student populations, current focus on standardized testing, and funding of education. For university students, especially at the sophomore level, these issues usually hold no meaning and no particular interest. They have no relevance to the lives of the students. The course was taught in the past in a traditional lecture format with tests from the pages of the textbook. While the clinical part of the course always received high praise from students, the course content was usually rated quite low.

I had three questions to investigate as I redesigned the Issues course to PBL:

1. Can the material in the course be made more relevant and meaningful to students just beginning their teacher education program? This was my primary question. Students entering an education program often do not see the relevance of studying philosophies, learning theories, historical foundations, and even current issues. At this level, students will often say, "Just tell me how to teach." They want a cookbook approach with recipes for creating success each day. I wanted to determine if using a PBL approach could help students to develop a deeper understanding of the complexity of the teaching and learning processes, and the social and political issues that surround the teaching profession.
2. Can a course help future teachers to understand, become comfortable with, and want to use PBL? Students arrive in college believing that they know how to teach. They have been immersed in school culture for 12+ years. For most, this has been a traditionally structured, teacher-centered environment. The challenge for this course is to help these future teachers begin to understand the philosophy of problem-based learning and how active, student-centered classroom practices can promote learning and retention of knowledge.
3. Can PBL be effective in a course of 30 or more with a single teacher as tutor? Problem-Based Learning has been most effective in medical and engineering schools with small groups of students and tutors working with each group. The question remains as to how to use PBL strategies effectively with larger classes and without individual tutors for groups.

### **Assessment**

Each student's grade in the course results from individual products (50% of the grade) and group products (50% of the grade). Individual grades include objective tests on history and philosophy and the reflective course portfolio.

Group grades are based on the presentation for problem one and written products for problems two and three. The grade on each of these is determined by several factors.

### Team Member Evaluation

In the table, write the name of a group member. Rate each criterion from 1 to 4. The total possible for each person is 20. Be fair and honest.

NAME	SCORE
Attended team meetings and was on time	
Contributed to the overall team plan	
Accepted his/her share of the responsibility for the project	
Completed his/her assigned tasks in a timely manner	
Helped others when appropriate	
Total Score	

What percentage of the work did he/she complete?

What was his/her most significant contribution?

Class members evaluated each presentation based on a scale that I provided. I did not average the scores given by the students, but I did take their comments into consideration when I gave a grade. I typed the written student comments and gave these to the students with their grade. Although I assigned a group grade for the presentation and for the written products, every member of the group did not necessarily receive the same grade. Students evaluated themselves and each of their group members. If a group rated the performance of a team member low, that person received a lower grade on the project.

### Self Evaluation

In each blank, please rate yourself 1 to 4 on each criterion. Briefly explain your contribution in each area.

NAME	SCORE
Attended team meetings and was on time	
Contributed to the overall team plan	
Accepted your share of the responsibility for the project	
Completed your assigned tasks in a timely manner	
Helped others when appropriate	
Total Score	

What percentage of the work did he/she complete?

What was his/her most significant contribution?

Other Comments:

Each semester more than half of the students in the class made an A or B on both tests with most of the other grades falling into the middle range. I did not teach this class before the redesign, so I have no comparison to prior test grades. However, students frequently tell me they encountered the information presented in these segments of the class in part of their standardized exit exam (the major Fields

Assessment Test), and they felt prepared. Since almost 100% of our seniors each semester pass the MFAT on their first try, I feel the learning goals in this area are being met.

### Presentation Evaluations

Presentations have usually been of high quality. Students have taken seriously the responsibility to gather excellent information and present it in an interesting and professional way. Skits have often been very creative; PowerPoint presentations have usually been well designed; some groups have videotaped interviews and included those in their presentations. Students have been challenged by their peers and have set high expectations for themselves and their classmates. When presentations have lacked depth of information or were less interesting, their peers have made note.

Qualitative comments in students' journals have indicated a high degree of engagement and of learning. Other professors have commented to me that when these same issues have come up in classes taken a year or more after Issues, students have had thoughtful and insightful discussions. There appears to be a high degree of knowledge retention.

Students are not directly asked the questions I have used as my guiding questions for the investigation of the course. However, a qualitative review of comments in their journals; have helped to provide answers to these questions.

1. Can the use of PBL help the course material to be more relevant and meaningful to students just beginning their teacher education program?

*I liked this project because it made me expand on what I thought. I never really cared about where my taxes went or how they were spent. I know now that it is time I started caring. Teachers have a responsibility to stand up for what they believe and know is right.*

*I am really glad we had to work on this problem. I feel that it has made me more aware as a citizen and voter in Alabama and as a future teacher.*

*Tenure is a difficult issue, because educators often disagree about whether tenure is good or bad. We researched all aspects of this issue to try to answer this difficult question. This problem provided much insight into the issue.*

*Working on this problem helped me realize how intertwined everything is in the educational process. There are no boundaries that separate how a child learns from what a child should learn. Everything seems to work hand in hand, which requires a great deal of organization and creativity on the teacher's part. It is more than sitting down to write a lesson plan; it is striving to encompass all areas of education into each lesson.*

*I had no clue there was so much to learn about education. Learning about budget cuts, tenure, and different learning theories have opened my eyes to a whole new level of teaching. I realized I have so much to learn to become a really good teacher.*

*This is what teaching is about; seeing a problem and using all available resources to figure out how it can be fixed.*

*Learning is not synonymous with boring. One of my passions for teaching is to rekindle the flame inside secondary education students that once burned when they were young-the idea that learning can be fun and enjoyable...education is NOT about memorization; it is about learning, understanding, and then knowing.*

2. Can a course help future teachers to understand, become comfortable with and want to use PBL?

*I did not use to be a supporter of problem-based learning, because I have always been very independent and feel that if you want it done right, you must do it yourself. Working with the other five girls in my group, however, helped to change my opinion about PBL. My mom is teaching an education course at a university at home, and I was actually giving her tips on what to teach in her class.*

*I was hesitant about this class at first because the class was a problem-based learning class, and I had heard only negative comments about PBL. After taking the class, I would rather do PBL. Working in groups has been enjoyable and has helped me to have a broader perspective on the topics discussed. Researching in groups has helped me to grasp the information more because I have to find the information on my own.*

3. Can PBL be effective in a course of 30 or more with a single teacher as tutor?

*I really did enjoy the group work. Dr. Dean could have lectured to us the whole class time about all the different topics, but she chose for us to learn it on our own. We went out and found the information on our own. Automatically, because of how much work went into finding the information, we remember it.*

*I enjoyed working in groups, and Dr. Dean facilitated our learning experience through providing the resources we needed. She incorporated all teaching strategies and I could tell she really cared about her students and the subject matter she was teaching.*

#### Reflections of a Teacher

An overarching goal of our teacher education program is to prepare reflective educators who will promote learning in their classrooms not just in relation to facts but also as that deeper quality understanding described by Wiggins and McTighe (1998). I began using problem-based learning in an effort to help my student develop this thoughtful quality from the beginning and to help them see and understand the relevance of educational issues. I hoped the problems would stimulate thought and emotion and heighten awareness about the various issues as students continued through the program. Based on the actions of students and their subsequent comments, I believe this has happened.

Students have engaged in ways that I could never have imagined, and in doing so, have found power that they did not know they had. When investigating funding, a group of students called agencies that received education dollars to ask, "Just exactly how is this money used?" They then sent a recommendation to the governor and some legislators as to which agencies should continue to be funded and which should not. Students have found excellent resources in print and on the web and followed up. One student found the name of a prominent researcher, called and talked to him in California, and was sent copies of all of his research. Students have often called and made appointments with local school administrators to ask their opinions about issues.

Comments in their journals often reflect their understanding of PBL and its effectiveness as a learning strategy. They recognize that they have gained ownership of information they never would have through more passive forms of learning. They were able to see more than one side of an issue about which they previously had very strong opinions. They understand and appreciate why I would not just tell them the answer.

#### Reflections of a Learner

Getting to this place has been a growing experience for me. I tried a variety of approaches to the course and several times had to back up and start over. Writing a course portfolio gave me the opportunity to reflect, let go of strategies that were not working and look for those that would.

I learned that I must stay engaged with the students, and I must listen to them. I must understand when their discomfort is legitimate and should be addressed. For example, it is appropriate for me to give them certain information in the form of a lecture; it is more efficient and effective and often provides much needed context. I must understand when their lack of interest is justifiable. My first problems were not very interesting. Problems must have a hook to grab the student's attention. For current issues, that hook is often a front-page news story or a biting editorial. Unless the hook works, students do not engage.

Having six groups make presentations on the same material was not only boring but also ineffective. No one felt ownership of the information, and no one was challenged to excel. When students have different problems, they know their group is responsible for the learning, and they take it much more seriously. When all the students do research on the same problem, they present their proposed solution to the class in a discussion format. They challenge and are challenged by their peers. Students are stimulated by these open discussions rather than bored by redundant presentations.

The role of the facilitator is not just to stand back and allow students to wallow in ignorance. They do not have time for that. Teachers should not tell them the answers, but is appropriate to provide a list of resources from which to begin. That way, students can start with valid information and move forward more quickly and more deeply. It is also appropriate to ask pointed questions that will help students get back on track.

The first time we sat in our circle to have the discussion on funding and I was completely ignored, I knew the PBL strategy was working. The students took control of the discussion and not only did they not look to me for answers; they were oblivious to the fact that I was there! That was exciting! I shared in their joy in a learning experience. I want them to take the joy in learning into their classrooms. As I reviewed their last journals, it let me know again that the PBL was effective.

In response to the question, "How can this course be better?" More than one student wrote, "*This course is too short. There are so many issues to investigate. It should be a whole semester.*"

#### Bibliography

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