

DOCUMENT RESUME

ED 460 095

SP 040 437

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TITLE Problem-Based Learning (PBL) as a Professional Development Alternative.
PUB DATE 2001-12-05
NOTE 7p.; Paper presented at the Annual Meeting of the National Staff Development Council (33rd, Denver, CO, December 1-5, 2001).
PUB TYPE Opinion Papers (120) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Adult Learning; Curriculum Development; Elementary Secondary Education; *Faculty Development; Inservice Teacher Education; *Problem Based Learning; Teaching Methods

ABSTRACT

Problem-based learning (PBL) as a professional development model is an authentic means of stimulating reflective, insightful, professional growth. This paper describes a conference session that modeled the PBL professional development model as participants engaged in an actual PBL and created their own PBL professional development model. The session helped participants: understand PBL, engage in an actual PBL activity, gather research supporting PBL, discuss the relativity of PBL as an instructional strategy in the classroom versus a professional development model, examine practical strategies relative to PBL implementation, and create ideas for PBL professional development modules. Guiding questions for developing findings on PBL as an alternative professional development model included: What is PBL? What are its advantages and disadvantages in professional development? and How could a PBL model be utilized in one's own district? Reflective post-session questions focused on: what the PBL experience was like for participants as learners; what learners might take from the experience; what personal issues participants grappled with when thinking about designing PBL modules; the facilitator's role in PBL experiences; pros and cons of using PBL as a professional development model; and what participants learned about themselves as learners/professional development providers. (Contains 20 references.) (SM)

*National Staff Development Council Annual Conference
Denver, Colorado - December 5, 2001*

*Problem-based Learning (PBL)
as a Professional Development Alternative*

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Problem-based Learning (PBL) as a Professional Development Alternative
Teresa Dempsey, Ph.D.

Session Agenda and Design

Time	Content	Process
15 minutes	Introductory Remarks	Brief description of presenter and background of how and what were the inspiration for PBL professional development <i>The following exemplifies the actual problem-based learning process in small cooperative groups:</i>
40 minutes	Basic understanding of problem-based learning	Engagement/Problem Clarification
45 minutes	Gather research supporting PBL.	Inquiry and Investigation
40 minutes	Develop a PBL professional development model.	Building a Solution
20 minutes	Present PBL professional development module	Capstone presentation
20 minutes	Share insights and reflections on experiencing PBL.	Debriefing

Problem-based Learning (PBL) as a Professional Development Alternative

Teresa Dempsey, Ph.D.

Abstract

Problem-based Learning (PBL), as a professional development model, is an authentic and practical means of stimulating reflective and insightful professional growth. PBL builds professional capacity and creates a collaborative and trusting learning environment for participants throughout the experience. The PBL professional development process will be modeled as participants engage in an actual PBL to learn about PBL and create their own PBL professional development module.

Introduction

Problem-based learning has long been thriving in medical schools (Barrows, 1985), law schools, K-12 classrooms (Brooks & Brooks, 1999) and now even in some university programs (Bridges & Hallinger, 1995). However, PBL as a K-12 professional development strategy is still relatively new and unexplored. Nancy Mohr's article, "Constructivist Zone" (1998) emphasizes the need for staff development approaches to encompass the democratic characteristics of groups to "take ownership over its own learning." As a past teacher passionate of constructivist practices in my own classroom, it only seems natural that the professional development experiences I provide for teachers and even administrators model the same. Research supports the use of systemic constructivist practices as Linda Lambert et. al. (1995) assert in the definition of constructivist leadership: "the reciprocal processes that enable participants in an educational community to construct meanings that lead toward a common purpose of schooling." Thus, constructivist practices must be embedded in system-wide practices, not just in the classroom. "Leadership for the Constructivist Classroom: Development of a Problem-based Learning Project"(Dempsey, 2000), supports the advantages of problem-based learning as an alternative to adult learning. PBL participants in the study engaged in deeper learning than they ever imagined and learned as much through their interdependent interactions as they did the PBL content itself. Problem-based learning epitomizes constructivism and promises its participants a learning experience they will never forget.

Problem

As a professional development educator, you know that research reveals a significant correlate that professional development has to student achievement. If professional development is the critical factor in promoting systemic change for practicing teachers, supervisors, administrators, and ultimately the students what model or models for professional development will likely produce the greatest improvement? Research has demonstrated the limitations of the short-term "training" model - the one-shot workshop or "expert" lecture that transmits information or skills to passive recipients. School systems must invest in developing the capacity of teachers to teach in ways that are effective for a range of different learners. The question is how?

Dilemma/Task At-Hand

The professional development in your district needs to be better aligned to developing teacher capacity. Your superintendent, Dr. Cook, has asked you to convene a small group to attend the National Staff Development Conference to investigate some different professional development models that may have promise for your district. Dr. Cook has asked you to be prepared to return with a brief overview/presentation of models that have promise for the staff in your district. Dr. Cook is interested in finding a model that can effectively deliver the necessary

content knowledge and stimulate reflective and insightful professional growth necessary for creating professional capacity in your learning community.

Your committee has thoughtfully chosen many different options to attend while at the National Staff Development Conference. Today, your committee will attend the session, "Problem-based Learning as a Professional Development Alternative". During this session, your committee will actually engage in problem-based learning scenario to learn more about this model. By the end of the session, you should:

- Gain a basic understanding of problem-based learning (PBL);
- Engage in an actual PBL activity;
- Gather research supporting PBL;
- Discuss the relativity of PBL as an instructional strategy in the classroom vs. PBL as a professional development model;
- Examine practical strategies relative to PBL implementation and;
- Create ideas for a PBL professional development module.

Product Specifications

- I. Your professional development committee will develop their findings on problem-based learning as an alternative professional development model with other participants attending the National Staff Development Conference. In doing so, they will compare their findings and determine:

Guiding Questions

1. On a very basic level, what is problem-based learning?
2. In a nutshell, what are the advantages and disadvantages of using problem-based learning as a professional development model?
3. How could a problem-based learning professional development model be utilized in your district? Sketch out some ideas.

Your committee will have to develop an action plan to identify these issues and determine how to effectively utilize your resources to resolve them. By the end of the session, your group should be able to return to your district and present to your superintendent the feasibility of using problem-based learning as a professional development alternative for your district.

- II. Reflective questions:

- What was the problem-based learning experience like for me as a learner?
- What might I take from this experience that will help me think what a PBL experience might be like with my staff?
- What personal learning issues did I grapple with as I thought about designing a PBL professional development module?
- What are my thoughts on the role of the facilitator in a PBL experience?
- What issues will be most rewarding or challenging if I use PBL as a professional development model?
- What did I learn about myself as a learner/professional development provider?

Resources To Be Utilized

Research on problem-based learning

Dempsey, T. L. (2000). *Leadership for the Constructivist Classroom: Development of a Problem-based Learning Project*. Oxford, OH: Miami University

Dempsey, T. L. (Summer, 2001). "Leadership for the Constructivist Classroom", *The Journal of Cases in Educational Leadership*. University Council for Educational Administration. www.ucea.org/cases.

Example of a problem-based learning professional development model

Dempsey, T. L. (1997). *Science Scope and Sequence...You Do Make a Difference!* Unpublished.

Classroom-based problem-based learning planner

Dempsey, T. L. (2000). *(Classroom) Problem-based Learning Planner*. Columbus, OH: Franklin County Educational Service Center.

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Bridges, E. M. & Hallinger, P. (1995). *Implementing Problem-based Learning in Leadership Development*. Eugene, Oregon: ERIC Clearinghouse of Educational Management.

Brooks, J. G. & Brooks, M. (1999). *In Search of Understanding: The Case for the Constructivist Classroom*. Alexandria, VA: Association for Supervision and Curriculum Development.

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More PBL References!

Constructivist Methodologies of Professional Development/Adult Education

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- PBL in the Classroom**
- Checkley, K. (Summer, 1997). "Problem-based learning: The search for solutions to life's messy problems." *Curriculum Update* 1-3, 6-8.
- Deslisle, R. (1997). *How to use problem-based learning in the classroom*. Alexandria, VA: Association for Supervision and Curriculum Development.
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- Glasgow, N. A. (1997). *New curriculum for new times. A guide to student-centered, problem-based learning*. Thousand Oaks, CA: Corwin Press.
- Jones, B. F., Rasmussen, C. M. & Moffitt, M. C. (1997). Real-life problem-solving: A collaborative approach to interdisciplinary learning. Washington D.C.: American Psychological Association.
- Torp, L, & Sage, S. (1998). *Problems as possibilities: Problem-based learning for K-12 education*. Alexandria, VA: ASCD.



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