

A Study of Teacher Attitudes Toward Utilizing Professional Learning Communities as a
Function of Common Planning Time

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Introduction and Background

When staff work together as a professional learning community--when they work together to clarify purpose and priorities, establish and contribute to collaborative teams, participate in continuous improvement cycles of gathering data on student achievement, identify areas of concern, generate strategies for improving student performance, support each other as they implement those strategies, and gather new data to assess the impact of their collective efforts--and when they are relentless in their efforts to improve achievement for all students, they increase the likelihood of sustained, substantive school improvement. The research is clear and compelling on this point. In fact, I am unaware of any credible research that suggests the best strategy for school improvement is to ensure each teacher works in isolation. (DuFour, 2003)

As DuFour has suggested, teachers who collaborate in Professional Learning Communities build on each other's strengths and provide better instruction for their students. With this in mind, the author, with the assistance of the sponsor, proposes the establishment of a Professional Learning Community in Biology. While the science teachers at the target school have been afforded common planning time, little has been done to provide staff development and guidance in conducting common planning. It is the intent of this project to encourage collegial interaction in the construction, administration and data analysis of formative and summative assessments; sharing of successful teaching strategies thereby building on each member's

strengths; and solidifying the scope, sequence, pacing of instruction such that students could be moved from one teacher to another with little loss of instruction.

There has been much in the way of literature that informs the development and implementation of PLC. Surprisingly, the notion of collaborative teacher groups or PLC has been in the repertoire of educators for almost 2 decades. Unfortunately, it is a practice that has not readily moved into the mainstream of educational practice.

Laura Servage, in her article *Critical and Transformative Practices in Professional Learning Communities*, states that the Professional Learning Community (PLC) is one of the most understood concepts in North American educational circles. Sergiovanni states that “developing a community of practice may be the single most important way to improve a school.”(as cited in Servage, 2008, p. 63) Servage outlines the core tenets of all models of the PLC as the belief:

- (1) that staff professional development is critical to improved student learning;
- (2) that this professional development is most effective when it is collaborative and collegial; and
- (3) that this collaborative work should involve inquiry and problem solving in authentic contexts of daily teaching practices.(Servage, 2008)

These collaborative models call for teachers to develop a strong sense of community for the sharing of “best practices”, teacher learning, student improvement, and to meet relationship needs.

While many educators term this paradigm shift as educational reform, Servage states that she sees this change as more transformative, a truly powerful change that “creates an entirely new means of public education”. (p.65) Servage believes that the teachers need to undergo an dramatic, life-altering change in order for the PLC to be truly successful or transformative.

Melanie S. Morrissey of the Southwest Educational Development Laboratory (SEDL) in the paper, *Professional Learning Communities: An Ongoing Exploration*, recounts the SEDL studies found most teachers work in isolation and are therefore ill prepared to offer the best educational practices for the students most in need of those practices. Further, it was found that high performing schools were those that utilize shared leadership, vision, values, and personal practices while low performing schools found the leadership, vision, values, and personal practices were obstacles to community development. (Morrissey, 2000)

The Research Question

This study seeks to answer whether and to what extent will the development of a Professional Learning Community give the teachers a renewed attitude toward common planning and a sense of camaraderie and collegial teamwork? Can this atmosphere of sharing, analyzing, and restructuring ultimately benefit the students by exposing them to fresh ideas and information? Will a steady rise in the pass rate on the state mandated tests be an additional benefit? These are all questions that a researcher would seek to answer. However, what methodologies would be best suited for answering these questions? Which branch of research, quantitative or qualitative, would be most appropriate?

The School and Teachers

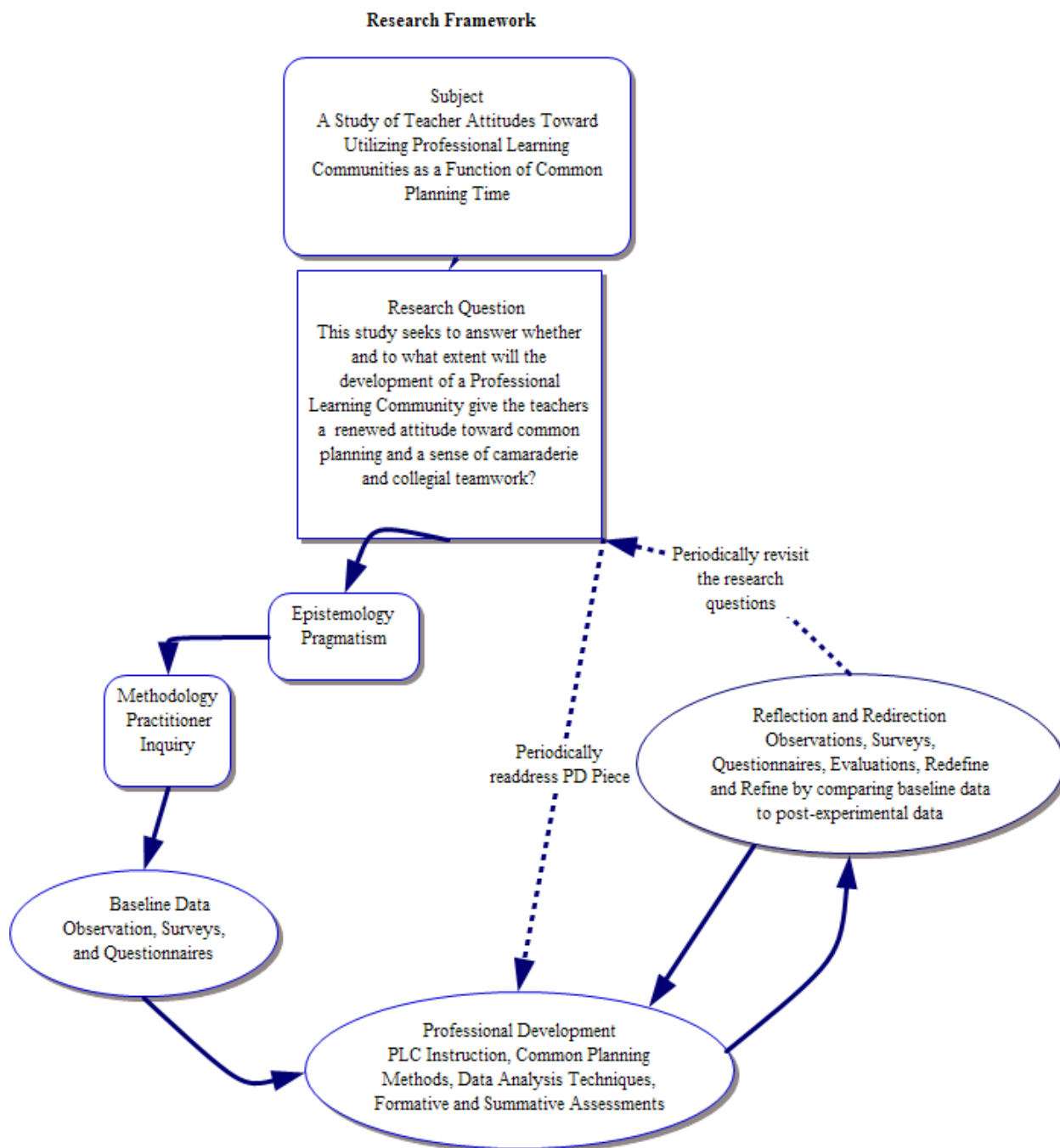
The target school is an urban/inner city high school with a diverse student population. Approximately 40% of the student population is eligible for the federal free or reduced lunch program. The student population is the largest in the target school district, approximately 1750 students. The school, for the last 5 years, has attained full state accreditation and has met AYP for the past 2 years.

The participants are the members of the department who are actively teaching or will be teaching Biology at the target school. The beneficiaries will be the students of those teachers, both now and in the future. The target high school has been steadily increasing their pass rates on the state mandated end of course tests. However, the Biology scores have been fluctuating between the low eightieth and ninetieth percentiles. Many factors have converged to cause these fluctuations. First, because a majority of the honors level classes were moved to the middle schools, there has been little or no boost to the scores because of honors numbers. Second, for many years, the school has had a very stable faculty. As faculty members retire or move to other positions, and new teachers enter the workforce, the stability has changed. Finally, the composition of the student body has changed. Therefore, it is believed that the members of the department need to function more as a team. This should enable them to draw on each other's strengths, ideas, and philosophies.

The Framework

A research framework is built upon the cornerstones of the epistemological stance of the researcher and their chosen research theory. The determination of a research method, either qualitative, quantitative, or mixed sets the base for the next course of construction. The methodologies that the researcher uses to gather their data rounds out the basic framework of the research project. (James, 2009)

Figure 1.



Underlying Epistemology

How is knowledge attained? What is it that we, as educators, believe about students and learning? As teachers of science, we tend to deal in hard facts and rote memorization of cycles, names and events. However, we also believe in students experiencing the natural world through inquiry. These educational constructs are what generally separates science educators from laboratory science practitioners. Our underlying beliefs of the acquisition of knowledge generally fall in the realm of some combination of Pragmatism, Progressivism, Experimentalism, Constructivism, and Pluralism. Each of these philosophical perspectives hold special meaning for educators.

Pragmatists hold that the search for truth involves the path that is taken. Dewey, James, and Pierce believed that when the world changes, the truth changes. With respect to education, they believed that which is good for the student's interest is superior to that which is good for the curriculum/school. Further, they espoused that students learn by inquiry and experience, hands-on activities, problem solving, and interdisciplinary cooperation. Dewey, along with Childs, also championed the idea that learning is based on the interests of the learner. This philosophy, termed progressivism, is closely associated with pragmatism and is centered on the student learner rather than the teacher as the central figure in the classroom. Teaching strategies that were supported within this philosophical camp included problem solving, cooperative learning, and experimentation. Also under the cloak of the pragmatist camp is experimentalism which also supported the ideas of problem solving and student-centered instruction. Both Dewey and Childs were also supporters of this philosophy.

Constructivism, as espoused by L.S. Vygotsky, holds that students actively construct their own understanding of what is real through interaction with surroundings while the teacher

provides scaffolding for the student's development and learning process. In order for learning to occur, the material must conflict with present knowledge and the student must resolve the conflict with new material. Pluralism, as an epistemology, is generally associated with the belief in multiculturalism. As part of the Harvard University Pluralism Project, Eck states that "pluralism is not diversity alone, but *the energetic engagement with diversity*." She also includes the understanding of differences, maintenance of personal identity in relation to that of others, and committing to a dialogue that involves both give and take. (Eck, 1997-2009)

How educators plan for instruction and develop teaching strategies is directly related to these stated epistemologies. Therefore, as professionals, educators have an obligation to seek out the best strategies and practices for the delivery of instruction while maintaining faith in their stated educational beliefs. Professional Learning Communities (PLC) are perhaps the best vehicle for improving instructional strategies. Tony Wagner, a proponent of constructivist school reform said:

Over time, the constant interaction in such a collaborative change process creates a different set of work incentives just as it does in a constructivist classroom. As people begin to share ideas and develop common aspirations, the goal is no longer simply to do only what is necessary to comply with the demands of the boss. Rather, people begin to work to earn the respect of their colleagues and to create something truly worthwhile together. (Wagner, 1998, p. 518)

In the current climate of high stakes testing, our educational philosophies must help us color our need for continuous school improvement with the needs of our students in a 21st century environment.

Research Methods

Searches of available literature stand to offer the researcher guidance in selecting the most effective form of research. According to Wildemuth, as cited in Myers(2000),

The qualitative paradigm aims to understand the social world from the viewpoint of respondents, through detailed descriptions of their cognitive and symbolic actions, and through the richness of meaning associated with observable behavior. (Myers, 2000, p. 2)

If one finds agreement with this statement, then it is reasonable to believe that qualitative methods would be appropriate for investigating the stated questions. Preissle (2006) , in her treatise on qualitative research, pointed out that qualitative researchers practice that which “ makes sense to the public and to those we study.” (Preissle, 2006, p. 690) In spite of the requirements of No Child Left Behind (NCLB) and the American Educational Research Association (AERA) stipulation of the use of scientifically based research, implying quantitative research, qualitative inquiry appears to be most appropriate for the field of education. (AERA, 2000; Marx & Harris, 2006)

Theory as it supports the research

Having narrowed the methodology down to qualitative research methods, one must now determine which research systems or theory that will best inform the stated questions. Countless authors have expounded on the virtues of numerous research systems. However, Narrative Inquiry, defined as an “interpretive methodology” that focuses on the human experience (Fossey, Harvey, McDermott, & Davidson, 2002, p. 720) and Practitioner Inquiry seem to be the most likely methods for answering the stated questions.

Practitioner Inquiry (PI), according to Cochran-Smith (2006), is “an array of research genres where the practitioner is the researcher, the professional context is the research site, and

practice itself is the focus of study.”(p.503) Included under Practitioner Inquiry are the methods of Action Research (Tomal, 2006), Participatory Research (Hall, 2005) , and Participatory Action Research (James, Milenkiewicz, & Buckham, 2008) In all forms of this type of research, the practitioner is always the researcher. Most commonly linked to the educational setting, this would make the teacher the principal researcher and the classroom the research site.

Through its development, PI has been the change leader for social, economic, and educational movements. Hall (2005) stated that “Participatory research originated as a challenge to positivist research paradigms as carried out largely by university based researchers.” (p.20) He believes that the information generated by Participatory Research (PR) is inextricably linked to a shift in power or structural change. This view would also hold true for the use of PR in educational settings. According to Tomal (2005), PI focuses on student-centered issues, school-centered issues, teacher-centered issues, and instructional-development issues. (p.12) This form of research is structured around the identification of a problem, data collection, analysis and reflection, feedback, action planning, implementation of the action plan, and evaluation and follow-up.

Practitioner inquiry offers a strategy for creating systemic change thus increasing opportunities for all students' academic achievement.(Brooks-McNamara & Pedersen, 2006) In the end, the researcher is part of the research and the research is part of the researcher. Whether, as James *et al.* said, an educator has “ a burning desire to save the world, or simply want to improve the educational practice”.(James, et al., 2008, p. 128) Or as Tomal (2006) has said, the researcher is visualizing a problem or issue, solving a given problem, causing change, these are all part and parcel of participatory research.(Tomal, 2006)

If one is of the Pragmatist, Constructivist, and/or the Experimentalist view points, then Practitioner Inquiry seems to be a reasonable research method. This form of research has its roots in the teachings and philosophies of Dewey and Vygotsky. Dewey believed that people learned from experiencing and inquiring into their world. (Connelly & Clandinin, 1989) Vygotsky thought that “human learning and development occur in socially and culturally shaped contexts. How people become what they are thus depends on what they have experienced in the social contexts in which they have participated.”(Moen, 2006, p. 2)

Within this form of inquiry lies a myriad of tools that can be utilized when carrying out a research project. These tools include many of the same tools common to the social sciences and anthropological studies. Case studies, questionnaires, artifacts, observations, interviews, surveys, and other techniques can be utilized to carry out practitioner inquiry. All of these tools can assist the researcher in painting a picture for true school improvement.

As with any research endeavour, there are ethical considerations that need to be taken into account. According to James et al. (2008), there are seven ethical considerations that each researcher/participant must address. The first is a statement attested to by medical science “ First, do no harm.” This is followed by the use of informed consent; maintaining confidentiality; development of knowledge; holding to validity, credibility, and reliability; acting to benefit others; and acting with integrity when reporting results. (p.44) As a researcher and an educator, ethical behaviour and integrity are the cornerstone of ones reputation as a professional. That prize must be fiercely guarded and protected. The compromise of ethics is a real possibility when dealing with PI research. The researcher is thoroughly immersed in the research project as part of that research. Care must be taken to ensure that personal biases do not enter into either the research or the reporting process. The researcher must guard against projecting attitudes or

opinions during interviews and influencing responses on surveys by skewing the construction of the questionnaires. Groundwater-Smith & Mockler (2007) have said,

The conduct of quality practitioner research is in its very nature ethical business.

The dynamic which exists between practitioner research and professional practice for educators is such that ethicality cannot be divorced from quality in practitioner research any more than it can be divorced from quality in professional practice.

(Groundwater-Smith & Mockler, 2007, p. 209)

Methodologies

As previously stated, this study seeks to answer whether and to what extent will the development of a Professional Learning Community give the teachers a renewed attitude toward common planning and a sense of camaraderie and collegial teamwork? Can this atmosphere of sharing, analyzing, and restructuring ultimately benefit the students by exposing them to fresh ideas and information? Will a steady rise in the pass rate on the state mandated tests be an additional benefit? These are all questions that a researcher would seek to answer. However, what methodologies would be best suited for answering these questions?

There are many tools which can be utilized in the conduction of the PI research on PLC. These include the use of observations, case studies, questionnaires, surveys, portfolios, and interviews. The researcher, as reflected in figure 1, will identify the sample population, gather baseline data utilizing questionnaires and surveys, conduct professional development on topics germane to PLC, observe the sample population in action, gather reflective data, and redirect the PLC process.

Expected Obstacles

When conducting research in the field of education, there are many stumbling blocks that can derail any study. These obstacles may include:

1. Participants not taking seriously the teacher attitude surveys or questionnaires,
2. Teacher resistance to participate in the necessary professional development,
3. Participants unwilling to adequately utilize the common planning time,
4. Participants failing to conduct formative and summative assessment,
5. Resistance to conduct data analysis,
6. Refusal or resistance to planning and executing appropriate re-teaching.

Possible Solutions to Overcome Possible Obstacles

The primary researcher, with the assistance of the project sponsor, proposes to assist the participants in achieving the goals of the research proposal. The researcher believes that the following steps will aid in overcoming the stated possible obstacles. They are:

1. discuss the importance of the study and appeal to the professional nature of the teachers
2. provide incentives for effective participation in the professional development piece
3. provide participants with clear goals and expectations
4. find testing and analysis programs that will ease the creation of formative and summative assessment and disaggregating of data (use of achievement series program)
5. provide support for teachers as they plan the re-teaching piece

Conclusions

As previously stated, this study seeks to answer whether and to what extent will the development of a Professional Learning Community give the teachers a renewed attitude toward common planning and a sense of camaraderie and collegial teamwork? Can this atmosphere of sharing, analyzing, and restructuring ultimately benefit the students by exposing them to fresh ideas and information? Will a steady rise in the pass rate on the state mandated tests be an additional benefit? It is believed, that with proper professional development in the PLC strategies, the teachers at the target school will experience success in the formation and execution of a professional learning community. Further, it is hoped that they will continue to learn, share and grow as a community for the benefit of their students.

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