Title of Paper: *Re-Thinking Teacher Professional Development: Towards a Constructivist Model*

Abstract: This study examined the effects of an innovative approach to teacher professional development (PD) on teacher classroom behaviour. Reflecting upon 25 years’ experience designing and delivering PD workshops to teachers; and drawing on the research in the field, which calls into question the effectiveness of most conventional forms of PD, I engaged in this study to solidly grounded in the literature, and employing a sufficiently rigorous methodology, hoping not only to inform my own practice, but to add to the professional dialogue on teacher PD. Building on the work of Thomas Guskey, and others, the study undertaken over a 15-month period, followed a group of 12 teachers, engaged in a collaborative inquiry to develop their knowledge and skills in the use of project based learning, produced very compelling results.

The objectives of the study were to:

- a) Examine my practice in teacher PD in light of current literature in the field.
- b) Modify one of my workshop structures by creating an innovation to it, based on a synthesis of the literature and my experience in the field.
- c) Determine how the effect of the PD effort could be measured or observed.
- d) Implement the innovation and evaluate the effectiveness of the PD effort.
- e) Use the results to further inform my practice, envision directions for further study, and add to the dialogue on teacher professional development.

Review of the literature, not only consistently suggested that conventional forms of PD results in limited implementation, or change in classroom behaviour, but also demonstrated significant inconsistencies in methods used to evaluate PD, and the “criteria of effectiveness” derived there from. While it is commonly agreed that two main goals of most PD programs are change in teacher behaviour, and changes in student outcomes, these are very seldom used in evaluating PD, including the majority of studies used in the past to define ‘criteria’ for effective PD. Nevertheless, after synthesizing the literature a number of themes on these two issues emerged, and theories or ideas suggested by a few researchers provided a platform from which to move forward.

Connecting with the Literature: The workshop series selected for study was one on Project Based Learning (PBL). Though heavily attended, and very positively and optimistically responded to over many years, this series had not demonstrated a very high rate of implementation at the classroom level. While this was consistent with all other PD efforts engaged in by my colleagues and I, and with findings in the field as well, this program already met virtually all the “criteria of effective PD” cited in the literature, thus providing a compelling dilemma for examination.

In the literature, Thomas Guskey proposed that the failure of many PD efforts may be due to commonly held assumptions about the relationship between beliefs, actions, and outcomes. He suggests that our assumption that beliefs determine action which determines outcomes, has led us to focus on changing teachers’ beliefs first, whereas it may be only student outcomes that have the power to change teacher beliefs. This shift is illustrated below.

Conventional Wisdom:

1) Change in teacher beliefs → 2) Change in teacher practice → 3) Change in student outcomes

Thomas Guskey’s Theory

1) Change in student outcomes → 2) Change in teacher beliefs → 3) Change in teacher practice
Methodology: Building on this theory; and further informed by the work of Ann Lieberman, who suggested that the constructivist and inquiry approaches advocated with students should also be applied to teacher development; plus that of Templin and Bombaugh, whose findings suggested the perceived power relations between participants and facilitator can significantly affect teacher participation and follow through, I modified my approach to this workshop series. To achieve this shift the new approach applied the principles of PBL and focused on collaborative inquiry, within a Professional Learning Community (PLC), with a system of shared responsibility for each others’ success and a feedback loop. The facilitator’s role was shifted, from the “expert in the room” to that of a “research assistant, with the ability to scaffold” when necessary.

In the study a group of 12 teachers were engaged in a collaborative inquiry, designed to explore the concept of integrating outcomes through project based learning. Over a fifteen month period the group was led through four ‘cycles’, during which they: collaborated in the design of authentic projects using their students own environments; committed to implementing their plans in the classroom; presented to each other upon return; and planned further projects, informed by their shared experiences; and returned to the classroom for another implementation. With each cycle, individuals were encouraged to increase the involvement of their students in envisioning and planning the projects before implementation, rather than simply sharing with them what was planned with their colleagues.

Data collection included: participant feedback via their presentations; classroom implementation evidenced through both their presentations, and school visits by researcher; continued use of the strategies beyond the life of the project; student outcomes as reported through presentations; participant journals; field notes of researcher; and formal surveys completed by participants. The data was examined in ‘five critical levels’, rather than just participant reaction, which, according to the literature, is the most used measure in the field, and may represent one of our greatest flaws.

Findings: The data collected demonstrated extremely compelling results. Eleven out of twelve participants implemented the planned projects in the classroom, compared to almost zero percent in previous models. Moreover, most went on to design and implement further variations with their classes beyond the life of the project. Even three individuals who went on to changed assignments (two to administration, and one to teach at the college level) continued to promote and use PBL in their practice. A great variety in the adaptation and implementation of the strategies emerged across the group, evidencing deeper learning, and connection and synthesis with previous constructs, demonstrating individual creativity and authenticity. Teachers consistently referred to improvement in student engagement and achievement, and what they learned about students’ capabilities as the most motivating and rewarding aspects of the experience.

Conclusions: The results of this study strongly support the premise that it is experiencing change in student outcomes first hand that has the power to change teacher beliefs, and therefore practice. Effectively creating conditions to cause participants to willingly implement a strategy with intent, conviction, and hope for success, is more important than providing them with ‘evidence of proven success of the strategy, intense training in how to do it, and sustained follow-up. Focusing on the tenets of: Constructivism; PBL; and PLC’s can provide a framework for the design of teacher PD. Two areas of focus in planning for improvements in teacher professional development are in program design and facilitator development, each requiring equal attention.