

Abstract

Conley Hathorn, currently at Louisiana State University Alexandria, USA and Anna Marie Dillon currently at Zayed University, United Arab Emirates explored the microsystem of teachers' experiences with education reform within the action research model for professional development (PD). Within the macrosystem of current major education reform in the UAE, it is timely to explore teachers' experiences of action research (AR) as professional development to improve pedagogy.

The process of engaging in action research for professional development is explored through a pragmatic lens, insisting on treating research as a human experience based on the beliefs and actions of practitioners. The paradigm of critical pragmatism acknowledges the interpretive cycle but at the same time does not limit the research methods which may be used. In this study, a survey has been used to gather data. The study found that more individual support should be given to teachers during the action research process that teachers should be allocated more in-school time to work on classroom-based research and that, where applicable, more academic research materials need to be made available in languages other than English.

Introduction

PD should not be limited to training sessions or limited contact such as departmental meetings (Garcés & Granada, 2016). Successful PD should be aligned with school goals in order to drive teacher and student improvement (Archibald et al., 2011). The process of teachers sharing what works, using the latest research, and reflecting on their practice, lead to positive gains in teacher's development (Garcés & Granada, 2016). High quality PD for teachers should not only be focused on reflection and inquiry, but also PD should be contextually specific (Kedzior, 2004). Quality PD should provide teachers with an opportunity to collaborate, research the latest innovations in improving student achievement, and provide opportunities for teachers to share best practices with each other (Kedzior, 2004). AR provides a solution for engaging in such PD.

AR is research that is conducted by teachers in the classroom (O'Connor, Greene & Anderson, 2006). It is a scholarly paradigm grounded in both critical theory and constructivism, which call for authentic learning that is supported by applications to real life issues and critical reflection (Mthethwa-Sommers, 2010; Young, Rapp & Murphy, 2008). Teachers 'taking a self-reflective, critical and systematic approach to exploring own teaching practices' (Burns, 2010, p. 2) by using AR have the potential for engaging deeply in education reform within the microsystem of a school.

Training



Overview of inquiry strand

The learning objectives of each individual inquiry (University of Florida, 2012)

Inquiry	Learning Objectives
Inquiry One	<ul style="list-style-type: none">Understand and begin to develop an inquiry approach teaching practice: learning to teach and teaching to learn.Analyse the cycle of inquiry and the movement between and within the cycle.Engage in structured conversations and exercises to come up with reflective questions concerning their teaching practice that are open-ended, personal and within their locus of control.
Inquiry Two	<ul style="list-style-type: none">Understand and begin to develop an inquiry approach teaching practice: learning to teach and teaching to lead.Identify the interest that motivated them to become an educator and begin to consider questions regarding that interest.Engage in structured conversations and exercises to come up with reflective questions concerning their teaching practice that are open-ended, personal and within their locus of control.
Inquiry Three	<ul style="list-style-type: none">Understand and begin to develop an inquiry approach teaching practice: learning to teach and teaching to learn.Begin to differentiate between a strong reflective question and a weak one.Develop an inquiry question based on individual context.
Inquiry Four	<ul style="list-style-type: none">Develop an inquiry question (reflective question) based on their own contexts and personal education interest.Begin to differentiate between a strong reflective question and a weak one.Work both individually and in small groups to finalize an inquiry question.
Inquiry Five	<ul style="list-style-type: none">Use the inquiry question guidelines to self-assess the strength of the inquiry question.Complete the first two sections ("purpose" and "question") of the inquiry brief.
Inquiry Six	<ul style="list-style-type: none">Define what is meant by data.Create the beginnings of a research plan by thinking about the types of information that would be helpful in addressing the inquiry question.Explore sources of quantitative and qualitative data.
Inquiry Seven	<ul style="list-style-type: none">Continue with research plan.
Inquiry Eight	<ul style="list-style-type: none">Create an individual timeline of data collection activities.Define what is meant by data analysis.Go through the four-step data analysis process with a photograph.
Inquiry Nine	<ul style="list-style-type: none">Articulate the purpose of using protocols to structure discussion.Use a protocol to examine a student work sample.
Inquiry Ten	<ul style="list-style-type: none">Address individual tasks involving data collection, planning, and reflection.Assess and reflect on current levels progress through the inquiry process at the midpoint of the cycle.
Inquiry Eleven	<ul style="list-style-type: none">Review the four-step process of data analysis.Differentiate strategies for qualitative and quantitative data analysis.Reflect on individual inquiry project data and prepare for data analysis protocol in Session 12.
Inquiry Twelve	<ul style="list-style-type: none">Participate in data analysis meetings in small groups, in which they will give and receive feedback about the data collected.Reflect on the inquiry process thus far and begin to think about planning for sharing projects.
Inquiry Thirteen	<ul style="list-style-type: none">Reflect on the question, "Why share your inquiry project with others?"Begin the process of compiling a written report based on their inquiry projects.
Inquiry Fourteen	<ul style="list-style-type: none">Use their inquiry brief documents and written reports to prepare to present their projects at the learning showcase.Create a presentation outline and plan PowerPoint slides or other visuals for use during presentation.Begin to practice presentations, either individually or with partners.
Symposium	<ul style="list-style-type: none">Teachers present findings of inquiries.

Table 1 Perceived level of difficulty: Mean scores for teacher inquiry components

Inquiry research process stage	Year 1 no. respondents	Year 1 mean	Year 1 SD	Year 2 no. respondents	Year 2 mean	Year 2 SD
Defining the research question	6	2.83	n/a	22	2.23	1.00
Writing the literature review	6	3	n/a	22	2.55	1.23
Developing and writing methodology	6	2.8	n/a	22	2.59	1.15
Analysing the data	6	2.5	n/a	22	2.33	1.08
Organising and writing findings	6	2.83	n/a	22	2.32	1.22

Table 2: Impact action research has on teaching and learning: Mean scores for teacher inquiry components

Impact of teacher inquiry on teaching and learning	Year 1 no. respondents	Year 1 mean	Year 1 SD	Year 2 no. respondents	Year 2 mean	Year 2 SD
Action research is valuable to the teaching and learning process for me as a teacher	6	3	n/a	16	2.35	0.76
Action research is valuable to the teaching and learning process for my students	6	3	n/a	16	2.53	0.61
The action research positively impacted my student's learning	6	2.33	n/a	16	2.53	0.50
This action research project positively impacted my learning	6	2.83	n/a	16	2.71	0.46
I view myself as a teacher researcher	6	2	n/a	16	2.21	0.99

References

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Action Research as Professional Development: Its Role in Education Reform in the United Arab Emirates



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Method

This study took place over the course of a two-year period. During Year 1, a group of six teachers from different schools within Abu Dhabi Education Council (ADEC) were given the option of pursuing AR (referred to as 'Teacher Inquiry') as a strand for mandated PD. They were withdrawn from school to a central location and completed the 14 Facilitated Teacher Training (FTT) sessions over 4 days spaced across the year. After each FTT, they worked on their AR on their own time. These teachers chose topics that they were interested in researching, such as reading strategies, character education and behavior management.

During Year 2, one ADEC public kindergarten school chose the option of taking 'Teacher Inquiry' as a whole school strand for PD. Thirty-three ADEC teachers worked on six AR projects. Fourteen FTTs (a replica of the FTTS offered to the Year 1 cohort) were conducted after school over a one-year period to support this process. The teachers were also mentored in large group and small group settings. The Senior Leadership Team (SLT) chose AR as a method of implementing School Improvement Planning (SIP) goals of improving speaking and listening skills, and critical thinking skills. The SIP goals were written collaboratively by the SLT and the teaching staff.

Recommendations

Based on the teachers' responses, we offer three recommendations for implementing successful AR as PD in schools.

1. More individual support should be given to the teachers during the AR process. Teachers in this study indicated that completing this project was challenging and somewhat difficult at times. Additionally, the teachers in this study indicated that the three main areas that they had difficulties with are, defining the research question, developing the method and analyzing the data.

2. Teachers should be allocated more in-school time to work on classroom-based research. Because of classroom responsibilities and classroom issues faced on a day-to-day basis, many teachers felt that they did not have enough time to work on the study.

3. More research written in Arabic will have to be made available. Arabic speakers indicated that finding research in Arabic that is applicable to their topics was a major obstacle for completing their research project.

Conclusion

Quality educational reform is not dependent upon a particular methodology. Rather, what AR provides is a set of principles for procedure (Grundy, 2004, p. 35). AR is an important core tool that teachers use when making educated and logical decisions. Many of our participants reported that because teachers review professional resources and research findings to develop their own solutions, action researchers become part of the body of research and literature that is vital for student achievement and success. Through the decisions that teachers make through AR, they can become activists for children regarding changes in curriculum and teaching methods.

This study concurs with O'Connor et al.'s findings that action research helps to recognize the significance of the teaching profession (2006). Positive changes can be detected in the language, actions, attitude and classroom management of participants in this study. As members of a community of practice engaged in AR, the interactions of these teachers both with the process and with each other has led to learning how to engage critically with pedagogy and enhance their practice.