What If We Can’t Apply What We Have Learned?
Reflections of an IB Science Teacher Candidate

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ABSTRACT
This study examines the experience of an IB science teacher candidate enrolled in the IB Educator Certificate Program, who completed her student teaching in an IB public school in the U.S. Using critical reflection as a method of inquiry, this study examines her expectations for student teaching, explore her assumptions as an IB teacher candidate, describes her experience, and discusses the implications of her student teaching experience. This study addresses the inconsistency of student teaching placements in IB schools.

KEYWORDS
IB programs, IB Teachers, Student Teaching, Teaching Profession

INTRODUCTION
Universities around the world are becoming increasingly interested in offering the International Baccalaureate (IB) Certificate Program to educators, administrators, and researchers. There are currently 36 universities spread across ten countries offering the IB Educator Certificate in Teaching and Learning and the IB Certificate in Leadership Practice (IBO, 2017a). The IB Certificate in Leadership Practice is designed for educators and administrators who want to improve their leadership capabilities in an IB context. The IB Educator Certificate in Teaching and Learning is designed for teachers and pre-service teachers seeking qualification to teach in one of the three IB programs (Primary Years, Middle Years, or Diploma Programs). The IB Educator Certificate (IBEC) in teaching and learning is the most popular, with 33 universities offering the certificate (IBO, 2017a). Each IBEC program is uniquely designed based on the university’s profile and academic requirements. Some universities develop new courses to integrate the principles and practices of IB programs while others adapt existing courses to meet the IB requirements. One of the common features across most if not all IBEC programs is the requirement of clinical experience in IB schools. The clinical work is regarded as essential for teachers to develop practical knowledge about teaching in an IB context. In the case of teacher candidates, the International Baccalaureate Organization (IBO) often requires that they complete their student teaching in IB schools before being awarded the certificate. The goal is to provide pre-service teachers with apprenticeship experiences in IB classrooms where they can learn and practice how to put the ideas learned in coursework into action (Cuenca, 2011; Darling-Hammond, 2006). In this study, we examine the experience of a teacher candidate enrolled in the IBEC program who completed her student teaching in an IB public school in the U.S. We examine her expectations for student teaching, describe its outcome, and discuss the implications of her clinical experience.

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International Baccalaureate Programs

IB education is one of the fastest growing educational movements in the world with nearly five thousand schools around the world offering IB programs. The aim of IB education “is to develop internationally minded people, who recognizing their common humanity and shared guardianship of the planet, help to create a better and more peaceful world” (IBO, 2013/15). The IB curriculum is learner-centered and aimed at the development of the whole individual (Hare, 2010). Its pedagogical approach is based on constructivist and socio-constructivist views of learning (Schunk, 2012), and the curriculum is inquiry-based (Kuhlthau et al., 2015), concept-driven (Erickson, 2012), and focused on deep understanding (Wiggins & McTighe, 2012). Inquiry, action, and critical reflection are the core of IB’s approach to teaching and learning. Students are invited to investigate local, national, and global issues, engage in real-world experience, and sharpen their critical thinking skills. Through inquiry-based learning, IB programs encourage students to ask questions, investigate, search, interpret, evaluate, and discriminate relevant information, (Kuhlthau, 2015). Students are expected to develop their natural curiosity, think for themselves, be actively engaged in classroom activities, and take ownership of their own learning. The “voice of the learner is considered to be as important as the voice of the teacher” (IBO, 2015, p.64). Through their approach to teaching and learning, IB programs aim to develop a range of skills and dispositions to learning—critical and thinking skills, communication, collaboration, and social skills, self-management and research skills, and literacy information skills, that are considered essential for “life beyond school” (IBO, 2015, p.65).

IB education integrates four programs, the Primary Years Program (PYP), Middle Years Program (MYP), Diploma Program (DP), and Career-related Program (CP). The IB Diploma Program is the oldest and largest in the world being offered in 3237 schools worldwide (IBO, 2017d). The IBDP is a rigorous and challenging educational program offered in the final two years of school. To be eligible to earn the IB Diploma, students must complete six core IB courses and the IB Theory of Knowledge (TOK) epistemology course, participate in the creative, activity, service (CAS), write a 4000-word extended essay (EE), and score above a defined threshold on IB external examinations (IBO, 2017b). Students often choose to enroll in the IBDP because of its academic rigor and preparation for university (Culross & Tarver, 2011), because it is intellectually stimulating (Taylor & Porath, 2006), and the credits are accepted by most universities (Vanderbrook, 2006).

The Rapid Growth of IB Programs

The number of IB programs offered worldwide has grown nearly 40% in the last five years (IBO, 2017d). The U.S. has the largest number of IB schools in the world, with 1854 schools, of which 1660 are public schools (IBO, 2017d). The growth of the IB Diploma Program in the U.S. is “based predominantly on the program’s perceived academic rigor and success as a college-preparatory intervention” (Saavedra, 2014, p.2), and the federal and state-funding opportunities designated to provide opportunities to accelerated learning (U.S. Department of Education, 2010). The rapid expansion of IB programs has increased skepticism about the quality and fidelity of program implementation (Bunnell, 2011a, 2011b). Although schools have to go through a lengthy and rigorous process of evaluation by the International Baccalaureate Organization (IBO) before they are authorized as IB World Schools, program implementation is not always faithfully and closely aligned with the IB view of teaching and learning (Burton, 2012; Kauffman, 2005; Pascoe, 2016). The culture of schools and teachers’ resistance to top-down school reforms are some of the greatest impediments to successful program implementation (Bullock, 2011; Mohamed, 2008). IB programs demand a shift in pedagogy that most teachers are not ready to implement. Transitioning from traditional ways of teaching to the IB instructional framework requires teachers to switch from being a transmitter of knowledge to being a facilitator of learning. It requires them to change their epistemological beliefs about learning (Howard et al., 2000), alter their teaching practices, and “rechart their skillset to better align with the goals of the program” (Pascoe, 2016, p.208). Teaching through inquiry is more complex than the traditional knowledge transmission model of teaching. It “requires
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