

Providing Access to Professional Development Opportunities for Formal and Non-formal Teachers and Educators Through the Creation of a Business

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Abstract

In the June, 2007 Education Week announced a forthcoming report that “foresees a vibrant, hands-on role for businesses in combating the much-publicized shortfall of math and science teachers in K-12 schools” (Honawar, 2007). The article refers to a plan that, in addition to traditional professional development entities such as schools and higher education institutions, includes a pronounced role for business. It is becoming evident that the nature of education is changing and new practices are needed (Lieberman and Pointer Mace, 2010). One of the significant changes is the need for teachers to work in collaborative teams and professional learning communities (Robinson, 2007). Other non-traditional and technologically advanced learning concepts include professional learning networks (PLNs); professional organizations; and diverse, collaborative work teams that incorporate inquiry-based learning. Although the role of business is secondary in nature to schools and institutions of higher learning, it is emerging in importance in areas of providing financial support to these institutions, partnering as part of a collaborative team, and offering professional development programs to formal and non-formal educators. The leadership challenge is to launch a business that will engage in and teach inquiry-based learning providing a commercial avenue of access for professional development of formal and non-formal educators. This will develop their critical thinking and problem solving skills. The name of the entity is The Inquiry-Based Learning Institute.

Introduction

This leadership challenge is to start a business that is all about inquiry. The immediate goal for this project is to create a sustainable business to provide professional development programs to formal and non-formal educators in the use and implementation of inquiry-based learning. Motivating class participants to incorporate inquiry into all aspects of their teaching and learning is an intermediate goal. Motivating others to embrace the principles of inquiry to better develop their critical thinking and problem-solving skills and incorporate them as part of the life-long learning process is the long-term goal for participants.

The inspiration for this challenge started with the Earth Expedition field course to Costa Rica in 2006, and that passion grew through five field expeditions and on-line

courses in the Global Field Masters Program of Miami University. Inquiry action projects have focused on creating awareness of environmental issues, professional development of teachers, creating outdoor learning centers, and exploring commercial applications of inquiry-based learning. Being an entrepreneur and having owned and operated an environmental testing laboratory for over 30 years makes the creation of an enterprise my path.

Inquiry-based learning (IBL) is learning through a process of asking questions (Spronken, et. al. 2008), and student achievement can be improved through teacher professional development (Supovitz & Turner, 2000). IBL is a student-driven process as opposed to the teacher prescribing the learning (Buch & Wolff, 2000). Inquiry is essential to teaching reform, especially to the teaching of science and learning in general (Blanchard and Southerland, 2009) and there are many positive outcomes. Students who are engaged in exploration in science and math experience higher cognitive levels of thinking and learning than those who do not (Marshall and Horton, 2011). Additionally, many states are implementing standards that incorporate critical thinking and problem solving skills and these skills can best be developed using IBL (Buch & Wolff, 2000). Global climate change, slowing the rate of species extinctions, rising sea levels, new strains of antibiotic resistant bacteria, loss of rainforest and natural habitat, feeding the world's growing population, and other complex problems require better critical thinking and problem solving skills and inquiry can help provide answers to these complex questions.

Many teachers do not always have experience with IBL, either when they were students or through teacher training programs; thus, it is difficult for them to meet the challenges of incorporating IBL into their classrooms (Kazempour, 2009 & Blanchard, et. al., 2009 & Anderson, 2007). Inquiry will be incorporated into the classroom based upon their inner beliefs. Some teachers feel that they are under pressure to teach to exams with little time in their schedule to incorporate IBL, and meld it with traditional teaching methods (Anderson, 2003).

Many of today's teachers and educators are disconnected with inquiry-based methods, and the challenge of implementing IBL into the classroom can be overwhelming

(Kazempour, 2009). For transformational change to occur, teachers must become comfortable with IBL in order to use the process in their classroom (Weiss, et. al., 2003). Kazempour asserts that teachers' knowledge and beliefs about IBL can be improved through professional development programs (Kazempour, 2009). This will enable them to implement IBL in their learning environment. This led to the creation of The Inquiry-Based Learning Institute, LLC.

The creation of a business must be based upon some reason for its existence. The mission of this business is to inspire the creation of new knowledge through critical thinking and problem solving skills of formal and non-formal educators and learners alike through hands-on professional development programs. In the process, the organization will cultivate a lifelong love of learning and community-based conservation among workshop participants. The vision is to see inquiry incorporated into all aspects of teaching and learning, and make a difference in quality of life through the benefits of enhanced critical thinking. We want class participants to incorporate inquiry into their programs, and we want them to motivate others to use and incorporate inquiry into their endeavors.

Forming a legal entity, a company, is in itself a means, or a task, and not a leadership challenge. Organizing and starting a business is, however a part of the overall challenge. It is somewhat of a precursor to the challenge of providing commercial access of ongoing professional development to formal and informal educators in a sustainable way. It is the mechanism whereby we contribute in a small way to the overall mission of Earth Expeditions: "to build an alliance of individuals with first-hand knowledge of inquiry-driven, community-based learning for the benefit of human and ecological communities, student achievement, and global understanding" (www.earthexpeditions.org/vision).

Methods

The methods for this project are not particularly task oriented or step-wise related. There is no recipe as might be found in a cookbook. The methods are reflected in the journey, and are comprised of many sequences of events. When the creation of a workshop was at the heart of an Inquiry Action Project, it was easy to articulate a set of

specific events that contributed to the need for the workshop and its development, implementation, etc. The methods for this project are more evolutionary in nature.

The challenge began many years ago. My career in environmentalism began in 1979 at Alloway Environmental Testing Services (Alloway). Initially, the scope of services was wastewater and water testing. Eventually, the scope expanded to laboratory and analyst professional development. These efforts have had a positive impact on the quality of data generated by analysts and laboratories in our industry. My company has also supported organizations that are advocates for environmental concerns and conservation interests.

My first field expedition was Costa Rica in 2006, and that started a new chapter in my professional development. I gained an entirely new perspective on community-based conservation and inquiry-based learning in large part through the class leadership of Hays Cummins as well as a connection we had through photography. My inquiry action projects (IAPs) in this class, as well as the next field expedition class to Mongolia in 2007 focused on methods to create awareness about environmental issues.

I am an entrepreneur. When I entered the Global Field Masters Program in 2009, it was clear that my journey throughout the program would somehow connect business with my passion for inquiry-based learning. My IAP from the Belize expedition course was “Commercial Applications for Inquiry-Based Learning”. The goal was to assess the feasibility of incorporating inquiry as a subject into my company’s professional development programs, or broadening our program offering in other ways. Alloway produced field programs around inquiry for our customers. The marketing plan and curriculum were guided by a “curiosity leads to thinking, and questioning leads to learning” approach (Hill and McGinnis, 2007). The comparative question revolved around value: would participants value an inquiry-based learning program on an environmental topic more or less than a traditional program on a similar topic. If participants valued the IBL based program more, the implications would be very positive. New markets could emerge, programs could be more effective, and the offering would be sustainable. In two nature-based field seminars given on September 18th and October 10th, 2009, 91% and 100% respectively of workshop participants believed the IBL-based

program was as worthwhile or more worthwhile than our more traditional program. In addition, the programs attracted a more diverse group than traditional programs. It was concluded this type of offering would be sustainable, and it has been.

My field expedition to Baja in 2010 provided me an opportunity to test new waters in formal education. Although I have had experience teaching some business courses at a local business college, I have not had any experience in a k-12 setting. The field expeditions were incredible in that I had new perspectives from teachers, a group with whom I have not had an opportunity to network with. My IAP for the Baja requirement was “Outdoor Learning Centers Develop Positive Student Attitudes Toward Science.” There was not a commercial aspect to this project. Alloway was asked to partner with other organizations and support an Ohio Environmental Education Fund Grant (OEEF) creating outdoor learning centers and sponsoring professional development of teachers in inquiry-based learning by exploring the relationship between outdoor learning centers (OLCs) and student’s attitudes toward science. Would students who have access to OLCs have a more positive attitude towards science than students without exposure to OLCs? I relied upon previous Earth Expedition classmates to help me with this assessment, and attitudes were more positive in grades 5-8 with students who have access to OLCs. Research shows that students’ attitudes toward science degrade from grade school to high school (Duran and Ozdemir, 2010 and Papanastasiou, 2002).

My final field expedition to Kenya in 2011 provided an opportunity to expand upon our relationship as an OEEF grant partner. My IAP was “Teacher Professional Development Essential to Incorporate IBL in the Indoor and Outdoor Classroom.” Alloway’s role in the grant was to support the professional development of teachers in the grant schools. A full day IBL workshop was prepared and titled “Inquiry Based Learning for Educators”. It was a hands-on practical workshop that was a model of what was expected in the classroom. The program materials were generated from concepts learned throughout Earth Expeditions, and with permission from the Exploratorium for Inquiry (Appendix I – IBL Part 1 Facilitator Guide). Part 1 of the student guide contains the agenda for a typical workshop event (Appendix II – IBL Part 1 Student Guide). The program was offered multiple times for teachers in the grant schools as well as

commercially for Lima City Schools.

The process of starting the company involved selecting a legal structure. Jennifer Randolph, a teacher in the Wilmington School District, was a classmate in the 2011 Kenya field expedition. Jen is motivated to continue this enterprise as a career, and she is the co-founder of the Inquiry-Based Learning Institute, LLC. (Appendix III: Partnership Agreement Outline). Jen and I complement each other very well. My background is in business and her background is in education.

Jen and I worked to create a business plan early in 2013 (Appendix IV – IBL Business Plan). The business plan addresses in detail:

Executive Summary: The executive summary provides a description of our service offering and markets. It articulates what it is about.

Company Description: This section establishes our mission, principal members and the legal structure of the entity.

Market Research: This section places us in a specific industry and elaborates more on potential customers. Competitor information is also touched upon. Conditions that might provide some competitive advantage are identified and a policy statement is made regarding regulations.

Product/Service Line: This section provides more detail on our service offering and an initial pricing structure. Intellectual property rights are addressed (note all rights are reserved to the business plan and it is not to be reproduced). Initial research and development strategies are identified.

Marketing and Sales: This section identifies our growth strategy, communications, and prospects. This part of the business plan will be supported with a marketing plan.

After the details of the business plan had been worked out, Jen and I formulated a basic marketing plan that is currently being re-evaluated. Initial cornerstones of the plan included the development of a website (www.iblinstitute.com) and a brochure to be used

to promote the institute (Appendix V – IBL Brochure).

Part of the process of fine-tuning the contents of our workshop presentation included an IBL event in 2013 for Wilmington School District with approximately 10 participants. This was the workshop that was developed and previously given throughout the professional development phase of the Ohio Environmental Education Fund grant, and commercially to Lima City School teachers.

The first formal event of The IBL Institute will be conducted May 15th – May 17th at The Ohio State University Campus, Lima, Ohio. The program will offer three consecutive days of our one-day IBL program for educators. The Ottawa River Coalition will offer a concurrent conservation-based course offering. An exhaustive marketing plan for the event was prepared and elements included emails to school teachers throughout NW Ohio, prior Earth Expedition and Miami classmates, emails to members of the Ottawa River Coalition watershed group, and hand-delivery to Allen County local schools. A file of the brochure is attached providing a complete description of the course (Appendix VI – May 15th-17th Education Summit Brochure). An opportunity for online registration can be found at <http://iblsummit.splashthat.com>.

Results

My IAPs have formed the foundation for this challenge. Each IAP has built upon the previous one, leading to the culmination of a company that will engage in and teach inquiry-based learning providing a commercial avenue of access for professional development of formal and non-formal educators to develop critical thinking and problem solving skills in teachers and learners alike.

Business details are complete. A legal structure for the company has been established. A business plan has been formulated. A marketing plan has been formed and is being executed. Workshop materials have been fine-tuned from no less than five prior events. A major event has been planned and results will be evaluated. It is important to note this leadership challenge is not about preparing a workshop or putting on an event. It is about continuing the journey. It is about advancing the mission that drives Earth Expeditions. It is about professional development that will help others address major problems facing the world community.

Discussion

The start-up of the venture and execution of the business and market plans have been remarkable. We are perhaps a full year ahead of schedule. According to Forbes, 8 out of 10 start-up business fail within 18 months (<http://www.forbes.com/sites/ericwagner/2013/09/12/five-reasons-8-out-of-10-businesses-fail/>). We are more than likely to be in the 2 out of 10 that succeeds. Through post-workshop surveys, we clearly have an outstanding program (Appendix VII – Post Workshop Summary December, 2010 IBL Event). Jen and I work very well together, and our experiences and backgrounds complement each other. The Global Field Masters Program itself has prepared us well. The course offering through the masters program and a curriculum that combines field and online courses has given me a wealth of knowledge and insight into learning and community-based conservation.

Since the success of the enterprise will ultimately be measured by the creation of new knowledge to solve some very complex problems facing society, all segments of society will benefit. Measureable parameters will be developed as the path of the enterprise becomes better defined.

Reflection and philosophy

Any leadership challenge, or perhaps more accurately stated leadership itself, results in some action. The written word can certainly motivate and move people to action and those who write can certainly lead. I do not mind being out of my comfort zone, and so I treasure this experience and I certainly value the feedback from my classmates and the course instructor. This process is valuable, and has contributed to my professional development. It has forced me to turn the glass, look at other perspectives, crystallize what it is that I am thinking, and collaborate with others in an on-line format that is challenging in itself. I best communicate with team members and team leaders in person. As reflected in my philosophy essay, I have started the venture because I am passionate about inquiry-based learning and the results it can deliver. I work with and through people, and I have a deep-rooted belief in people. When I am passionate about something I can be relentless in its pursuit.

As far as reflecting about this particular challenge, it basically began many years ago and will extend far into the future in some way, shape or form. The success of the venture does not hinge on the outcome of the May 15th – 17th event. The course itself is an event along a long timeline of many leadership challenges. The process will continue to move people to action. This project is all about change and it will prepare others to drive change. My expectation is that The IBL Institute will both complement and contribute to other programs in educational institutes and businesses alike to ultimately drive global change.

Conclusions and Next Steps

The prognosis for The Inquiry Based Learning Institute LLC is good. My prediction is that the enterprise is sustainable. In accordance with Section 2.6 of the legal agreement forming the LLC, the company will operate indefinitely: 2.6 *Term. The term of the Company will be perpetual unless it is dissolved in accordance with the provisions of Section 10.* I believe the institute will be one of the 2 out of 10 that makes it. I predict that within three years or less, the company will be profitable. I believe the workshops have already made a difference.

We will continue to develop workshops and forge important relationships. We will attend and exhibit at more programs like the Ohio Environmental Education Conference. We have subscribed to an on-line educator platform (Classroom 2.0) and we will consider other methods of delivery to provide access to IBL. The focus of the challenge is providing access to training and we need to maintain a global perspective on that concept, integrating training through our website and perhaps through other websites.

We will seek more on-site programs at schools, museums, zoos and businesses. These are all details however that will be considered and pursued in conference and after evaluation of available data and research.

Jen and I recently attended the Ohio Environmental Education Conference annual conference. We were provided an opportunity to distribute brochures regarding the institute. We plan to join the organization, exhibit at next year's conference and present a paper as well. We will continue to look for other opportunities to engage professional

organizations as part of our network.

As we continue to develop and refine our marketing plan, we will give careful attention to understanding the needs in the marketplace using various tools (Appendix VIII – Persona).

We plan to form an advisory board this year as most businesses benefit from a board. I especially look forward to Jen making the transition from the classroom to a career with The IBL Institute.

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Appendices (files attached)

Appendix I – IBL Part 1 Facilitator Guide

Appendix II – IBL Part 1 Student Guide

Appendix III: Partnership Agreement Outline

Appendix IV – IBL Business Plan

Appendix V – IBL Brochure

Appendix VI – May 15th-17th Education Summit Brochure

Appendix VII – Post Workshop Summary December, 2010 IBL Event

Appendix VIII – Persona