

**Exploring the Impact of an Appreciative Inquiry  
Framework: Nova Scotia IBDP Coordinators and  
Approaches to Teaching and Learning**

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Organization**

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**Dr. Jennifer Mitton-Kükner**



**Heather Michael**  
Citadel High School

**Cindy Tully**  
Nova Scotia Department of Education and Early Childhood  
Development

**Mary MacDonald**  
Atlantic Canadian Association of IB World Schools

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## **1. Executive Summary**

This report reviews the findings of an IB-funded study which investigated the ways in which an Appreciative Inquiry framework, a strength-based approach, fostered the understanding of International Baccalaureate Diploma Programme (IBDP) Coordinators and Teachers regarding Approaches to Teaching and Learning. ATL, a relatively recent curricular initiative conceptualized by the International Baccalaureate Organization (IBO) (International Baccalaureate Organization, 2014; Gillett, 2015), are defined as purposeful strategies, skills and attitudes informing teacher pedagogy, student learning, and classroom learning environments (International Baccalaureate Organization, 2014). The primary research question informing this study asked: What impact, if any, did Appreciative Inquiry (AI) have upon participants' understanding of Approaches to Teaching and Learning (ATL) and their willingness to establish ATL practices in Diploma Programmes (DPs)?

This work is a partnership amongst several people representing key organizations who play a pivotal role in Teacher Education and the IBDP in the province of Nova Scotia (NS): a university researcher (Dr. Mitton-Kükner, St. Francis Xavier University), the NS Department of Education and Early Childhood Development (Ms. Cindy Tully), the Atlantic Canadian Association of IB World Schools (Ms. Mary MacDonald), and NS IBDP schools (Ms. Heather Michael).

A key outcome that emerged from the study was the request from all participants to have further learning opportunities about ATL. In response, the research team has planned an ATL IB Teacher Conference, informed by AI principles, to happen in July 2019. The conference is to be co-hosted by the NS Department of Education and Early Childhood Development (NS DoEECD) and the Faculty of Education at St. Francis Xavier University. The conference is ATL-centered with approximately 200 teachers and administrators from across Nova Scotia leading the sessions paying particular attention to ATL as it happens in subject areas, in the core, and across disciplines.

### **Understanding ATL through AI Workshops**

This qualitative study was conducted using a single case study design (Yin, 2003), as participants took part in a series of professional learning workshops focused on ATL. The professional learning workshops were designed using the principles of AI<sup>1</sup>. The study involved 13 participants (9 DP Coordinators and 4 IB Teachers/Subject Leaders) from public high schools that offered the Diploma Programme (DP) in Nova Scotia (NS), Canada. Six of eight school

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<sup>1</sup> AI is a methodological approach focused upon searching for the best in people and organizations (Whitney & Trosten-Bloom, 2010).

boards, and eight of 13 DP schools, were represented in the sample with seven participants from schools in rural locations and the remaining six from schools in urban locations. Underlying this study was the assumption that DP Coordinators and IB Teachers, as subject leaders are pivotal players in the implementation and ongoing nurturing of ATL in the DP.

The study was conducted over a period of 10 months (June 2017-April 2018). During this period of time, three AI workshops were conducted. To understand AI’s impact, if any, upon participants’ knowledge and abilities to establish pedagogical practices to enhance ATL in DPs, data was gathered using four main methods: Individual interviews, focus group interviews, observations of participants during AI workshops, and artifacts generated during AI workshops.

Using this approach, participants, overall, characterized their involvement in the AI Workshops as both reaffirming and clarifying. The single case analysis disclosed a number of findings relevant to understanding the impact an AI framework had upon participants’ knowledge, and willingness, to envision how they might establish effective pedagogical practices and curricular initiatives, alongside teachers and administrators, to enhance ATL in DPs.

The table below provides a succinct overview of the study’s results chronologically.

<b>Phases of Study</b>	<b>Highlights</b>
Entrance Interviews: Participants’ Understanding of ATL before AI Workshops	1. Participants identified strong, positive beliefs in the DP.
	2. Participants described challenges to enhancing the DP in public high schools running a variety of academic programs.
	3. Participants identified the need to learn more about ATL and welcomed the opportunity to be involved in the AI Workshops.
Participants’ Responses to AI Workshops	1. Participants identified how an AI approach fostered trust.
	2. Participants positively associated AI with the complexity of ATL.
	3. Participants identified the use of affirmative language as an element motivating them to action.

	4. Participants emphasized collaboration as critical for ATL to be enhanced in DPs.
	5. Participants recognized more time for collaboration was needed to enhance ATL in DPs.
Exit Interviews: Impact of AI upon Participants' understanding of ATL	1. Participants identified how an AI approach fostered their willingness to learn.
	2. Participants described enhanced confidence regarding ATL knowledge.
	3. Participants described ATL as representing pedagogical possibilities.
	4. Participants identified the need for collaboration for ATL purposes.
	5. Participants' identified how an AI approach could be used to increase collective buy-in (DP and other programs) for ATL.
	6. Participants described their involvement in the research study as constructive, and supportive, professional learning.

**Theoretical Implications: How Teachers Respond to Professional Development**

How teachers respond, and experience professional development is important to understand. Positive emotions associated with professional development have been found to foster engagement, enactment, and reflection while unpleasant reactions can encourage a lack of engagement and reduced implementation (Gaines et al., 2019). As found in other studies focused on teachers' affirmative professional development experiences, the participants of this study positively responded to learning about ATL through an AI approach, as the workshop content and activities were viewed as aligned with their beliefs (Abrami, Poulsen, & Chambers, 2004; de Jesus & Lens, 2005) about the benefits of a DP education and were perceived as connected and useful (Emo, 2015). How participants described the AI Workshops on ATL as positive learning experiences, is not to be underrated in its importance. Participants, overwhelmingly, depicted ATL and their AI Workshop participation as encouraging, helpful, and educational. Scholars note that how teachers experience professional development can lead to change, or not. The

findings of this study further affirm and contribute to this emerging field of study and emphasize the potential of an AI approach to professional development.

### **ATL Professional Development: AI Guidelines**

Key to understanding AI, as part of professional development design, is to view it as foundational, particularly its emphasis on inquiry as relational and situated in affirmation and appreciation. Because ATL is a conceptually comprehensive framework, important within the AI design of ATL workshops are the 4-D cycle<sup>2</sup>, its underlying principles<sup>3</sup>, as well as the inclusion of literacy strategies that encourage participants to make visible their understanding of ATL as it unfolds. We found participants’ emerging knowledge informed the ATL goals they had for their DPs. Lastly, and as important as any of the design considerations described, are the elements of time and accountability. Purposefully, the AI Workshops were planned to occur over a series of months (October 2017, January 2018, March 2018) knowing that ATL is the kind of framework that takes time to learn and process and knowing that participants needed time in between workshops to find examples of ATL to allow their short-term goals, as part of their action plans, to come to fruition. Sharing their ATL evidence with one another in Workshops 2 and 3 fostered a network of follow up support and pressure to show their learning (Guskey, 2001). This was fostered by the design guidelines below; these ten guidelines may inform the planning of AI informed professional development workshops about ATL.

<b>Design Guidelines: AI informed ATL professional development workshops</b>	<b>Description</b>
Design Guideline 1	Employ the 4-D cycle: Discover, dream, design, destiny.
Design Guideline 2	Identify strengths and dwell on those strengths.

<sup>2</sup> The AI 4-D cycle is comprised of four phases: Discover, dream, design, destiny (Whitney & Trosten-Bloom, 2010).

<sup>3</sup> AI principles: Constructionist Principle (*Words create worlds*); Simultaneity Principle (*Inquiry creates change*); Poetic Principle (*We can choose what we study*); Anticipatory Principle (*Images inspire action*); Positive Principle (*Positive questions lead to positive change*); Wholeness Principle (*Wholeness brings out the best*); Enactment Principle (*Acting “as if” is self-fulfilling*); Free-Choice Principle (*Free choice liberates power*) (Whitney & Trosten-Bloom, 2010).

Design Guideline 3	Plan on how to further enhance such strengths in the design of ATL goals (short-, mid-, long-term).
Design Guideline 4	Name ATL successes and use these as entry points to imagine more complex endeavours.
Design Guideline 5	Use real, positive language at all times.
Design Guideline 6	Infuse literacy strategies into the design at each phase to make visible for participants how their assets can inform the design and goals of ATL.
Design Guideline 7	Create ongoing opportunities for metacognitive checks about ATL understanding.
Design Guideline 8	View limitations, when they arise, as possibilities for ATL.
Design Guideline 9	Plan ATL Workshops to happen over time to allow for processing of information and ideas and to allow for the fruition of ATL goals.
Design Guideline 10	Create a supportive follow up opportunity to enable participants the occasion to report back on successes, receive peer feedback, and experience supportive-pressure to show their learning.

## **Recommendations for IB World Schools using AI-Informed ATL Professional**

### **Development: The Fundamentals**

The following implementation recommendations are mindful of the variety of school contexts in which IB programmes are offered intersecting with the conceptual complexity of ATL. Like ATL in how it cannot be simplified to any one way of learning or pedagogy, an AI-informed approach to professional development is intricate and demands planning in relation to the unique contextual strengths/constraints of IB World Schools (IBWSs) and their ATL needs and goals.

Successful implementation of effective ATL professional development when using AI, is dependent upon a marriage of mindful facilitation; ideally, facilitators have knowledge of AI principles<sup>4</sup>, have incorporated the aforementioned design guidelines into their planning, and have sound understanding of the school in which the process takes place. Implementing AI-informed professional development for the purposes of targeting ATL is well-suited to pedagogical leadership teams who are focused on instructional change. Such a focus, we argue, has a three-fold aim in that a pedagogical leadership team is aspiring to:

- amplify teacher buy-in and understanding about ATL across disciplines;
- document evidence of ATL's presence;
- further enhance ATL knowledge, skills, and attitudes of teachers.

Important to note is that this kind of professional development necessitates an investment in an ongoing professional development cycle of planning, implementation, and evaluation. The following fundamentals are integral to designing effective AI-informed ATL professional development.

#### *Planning AI-informed ATL Professional Development*

1. **Identify:** Identify the individuals who may lead this process. Ideally these individuals are members of a school's pedagogical leadership team and are willing to learn about and engage with AI.
2. **Consult:** Consult teachers: Identify perceptions of ATL strengths. Consultation may be comprised of questionnaires, interviews, focus groups and/or a combination of such methods, and is mindful of AI principles.
3. **Analyze:** Analyze the ATL knowledge and strengths that have been identified during the consultation; as part of this process consider what has not been identified. This information may be considered as a baseline of knowledge regarding the presence, and understanding, of ATL in the school.

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<sup>4</sup> AI principles: Constructionist Principle (*Words create worlds*); Simultaneity Principle (*Inquiry creates change*); Poetic Principle (*We can choose what we study*); Anticipatory Principle (*Images inspire action*); Positive Principle (*Positive questions lead to positive change*); Wholeness Principle (*Wholeness brings out the best*); Enactment Principle (*Acting "as if" is self-fulfilling*); Free-Choice Principle (*Free choice liberates power*) (Whitney & Trosten-Bloom, 2010).

4. **Develop:** Develop a plan for professional development that spans an academic year, or semester:
  - a. Find time for four days<sup>5</sup> of professional development in which each day focuses upon one stage of AI (Discover, Dream, Design, Destiny).
  - b. Identify a clear goal (an affirmative goal for ATL) and a set of guiding questions and objectives for this undertaking; guiding questions and goals need to be aligned with AI stages and ATL goal(s) (i.e. the ATL goal spans the year and the guiding questions and objectives are specific to each AI stage/day).
  - c. Plan to use instructional strategies that are respectful of adult learners.
  - d. Create dynamic materials and activities to support each stage of AI inquiry into ATL. Ideally literacy-based strategies are used to inform the development of materials and activities and to encourage teachers to make visible their understanding as it develops and emerges during workshops. Ideally, packets of materials are created for teachers which include overall goals, guiding questions, objectives, workshop agendas, glossary of terms for AI-based vocabulary, and lists of resources (books, videos, websites etc.).
  - e. Develop bridging activities in between each workshop where teachers are accountable for and encouraged to gather evidence that demonstrates ATL. These ATL artifacts are in relation to each AI stage and are to be shared as part of workshop activities.
  - f. Ensure that the context for the professional development is comfortable and that excellent food/beverages will be provided.
5. **Prepare:** Prepare teachers for the ATL professional development events. This entails communicating information about overall goals, guiding questions, objectives, and any ATL artifacts that teachers are encouraged to bring in addition to dates, time frames, and locations.

#### *Evaluating AI-informed ATL Professional Development*

1. **Evaluation of individual workshops:** Evaluate each session; analyze these results to inform the planning of the next workshop as aligned with the AI stage.

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<sup>5</sup> If four days are not possible, the professional development may be planned over two days Day 1: Discover and Dream and Day 2: Design and Destiny.

2. **Evaluation of the overall series of workshops:** Evaluate the overall process at the end of the workshop series.
3. **Analyze:** Analyze the results and mindfully consider teacher actions plans that were developed during the latter workshops (i.e. Stages: Design and Destiny). This information may be considered for continued documentation of ATL as well as the development of new ATL goals.
4. **Celebrate:** Celebrate the progress that has been achieved; focus on small measurable achievements and view these successes as entry points for more complex ATL undertakings.
5. **Schedule:** Schedule follow up collaboration and opportunities.

### **Learning from the Nova Scotia Context**

NS offers a unique opportunity to understand the phenomenon of ATL in DPs due to the number of DPs in the province, the support of the NS DoEECD, and the commitment of Coordinators, Teachers, and Administrators involved in the DP. When conducting this research on the impact of AI informed professional development upon DP Coordinators and IB Teachers' understanding of ATL, attending to how participants responded to the design and principles of AI was pivotal. Participants' positive emotions offered insights into how AI fostered a collective willingness amongst the group to identify their ATL knowledge, and limitations, their goals for further enhancing ATL in their DPs, as well as their commitment to learning, and doing, more related to ATL. Participants recognized the importance of coming to terms with the complexity of ATL not only for the purposes of personal teaching practices, but also in how their knowledge might support colleagues, and overall coordination ATL across the DP, with the aim of deepening student learning. All of the participants viewed the design and principles of AI as a way in which they might foster greater buy-in for ATL amongst IB Teachers as well as amongst Administrators and non-IB Teachers. Overwhelmingly, participants emphasized the importance of collaboration for the purposes of ATL education and saw school Administrators as playing a crucial role in making this happen. It is clear throughout this study that interpretations of ATL vary across schools, DP Coordinators and IB Teachers; this particular point shines light on the significance of time for collaboration and ongoing professional learning for the purposes of ATL in DPs. DP Coordinators and IB Teachers in NS are hungry for further ATL professional development and have the potential to lead new understanding of ATL pedagogy for the IBO. It is our hope and intent that the forthcoming IB ATL Conference in July 2019 will become a

regular event in which the IB Educators of this province will have the opportunity to showcase their knowledge and skills. The findings of study may resonate with other IB Educators in similar educational contexts.

## **2. Introduction**

This report reviews the findings of an IB-funded study which investigated the ways in which an Appreciative Inquiry (AI) framework, a strength-based approach, fostered the understanding of International Baccalaureate Diploma Programme (IBDP) Coordinators and Teachers regarding Approaches to Teaching and Learning (ATL). Of particular focus in this study was AI's impact, if any, on participants' knowledge, and willingness, to envision how they might establish effective pedagogical practices and curricular initiatives, alongside teachers and administrators, to enhance ATL in Diploma Programmes (DPs). The 10-month study involved 13 participants (9 DP Coordinators and 4 Teachers/Subject Leaders) from public high schools that offered the Diploma Programme (DP) in Nova Scotia (NS), Canada. Prior to the research findings and recommendations, an overview of relevant academic literature pertaining to teacher professional development and appreciative inquiry as well as a summary of the methodology and methods are provided.

This work is a partnership amongst several people representing key organizations who play a pivotal role in Teacher Education and the IBDP in the province of NS: a university researcher (Dr. Mitton-Kükner), the NS Department of Education and Early Childhood Development (Ms. Cindy Tully), the Atlantic Canadian Association of IB World Schools (Ms. Mary MacDonald), and NS IBDP schools (Ms. Heather Michael).

The study was designed to inform the International Baccalaureate Organization's thinking about what an AI approach to professional development can offer for the purposes of ATL training and how this knowledge might also complement general principles underlying its workshops. The study will also provide contributions to the literature on professional development practices that foster participant involvement, motivation, and trust. This will be of particular significance to those engaged in the practice and theory of professional development in relation to teacher learning and effectiveness.

### **2.1 International Baccalaureate Diploma Programme and ATL**

Established in 1968, as a non-profit educational foundation ("History of the International Baccalaureate", n.d.), the IBDP is a two-year rigorous academic programme for grade 11 and 12 students, ages 16-19, and is offered globally. Over the past five years, Canadian schools have increased their offerings of IBDP; there are approximately 141 IBDPs and 20,000 students in Canada ("Today in Canada", n.d.). In the province of NS, the DP is offered in 13 public high schools ("International Baccalaureate in Nova Scotia", n.d.) and two private schools. As part of DP requirements, students engage in the study of six different subject groups (literature,

language acquisition, social studies, the experimental sciences, mathematic, and the arts) and must complete three core elements: the extended essay (EE), theory of knowledge (ToK), and creativity, activity, service (CAS).

The DP accounts for 56% of total IB programmes (IB 2011 Annual Report) and is a highly respected approach to education for upper secondary adolescents. Recognized for stimulating critical, interdisciplinary thinking while grounded in concept-based, inquiry, and student-centered learning, IBDP students and graduates are well-known for their abilities to think analytically, creatively, and autonomously (Caspary, Woodworth, Keating, & Sands, 2015; Wade & Wolanin, 2013) and for their positive mindset to learning (Barnett, Avila, & Aklog, 2017). The benefits of an IBDP education are well established, particularly in terms of university preparation (Coates, Rosicka, & MacMahon-Ball, 2007; Fitzgerald, 2015; Jenkins, 2003) and the kinds of investigative, methodical thinking which IBDP graduates demonstrate (Aulls & Lemay, 2013; Aulls & Pelaez, 2013; Inkelas, Swan, Pretlow, & Jones, 2012; Wray, 2013).

ATL, a relatively recent curricular initiative conceptualized by the International Baccalaureate Organization (IBO) (International Baccalaureate Organization, 2014; Gillett, 2015), are defined as purposeful strategies, skills and attitudes informing teacher pedagogy, student learning, and classroom learning environments (International Baccalaureate Organization, 2014). Developed to introduce new elements into the DP, while aligning the DP with its Primary Years (PYP) and Middle Years Programmes (MYP), ATL is described as supporting the fundamental values and principles of an IB education (Clark, 2014). Specifically, ATL is founded in constructivist and student-centered approaches and pays particular attention to global engagement, multilingualism, and intercultural understanding (International Baccalaureate Organization, 2015). Embracing the most effective skills and practices known to deepen learning (Trilling & Fadel, 2009; Wagner, 2010; Darling-Hammond et al., 2008; Darling-Hammond & Cook-Harvey, 2018), ATL is a comprehensive conceptual framework comprised of cognitive, metacognitive and affective learning skills and six pedagogical principles that inform teaching (Gillett, 2015).

Learning skills, as part of ATL, are broadly defined to include information and processing skills (cognitive), behaviour and emotional management skills (affective), and skills used to regulate the effectiveness of learning competencies and processes (metacognitive). Common across the PYP, MYP, and DP programmes, these skills are gathered into five categories:

- thinking skills
- communication skills

- social skills
- self-management skills
- research skills. (International Baccalaureate Organization, 2015, p. 66)

These five skill categories are viewed as closely linked and overlapping.

Key to ATL, along with its learning skills, are the six pedagogical principles that support teaching practices which aim to deepen student learning. These six fundamental principles underlie all IB programmes and are identified as:

1. based on inquiry
2. focused on conceptual understanding
3. developed in local and global contexts
4. focused on effective teamwork and collaboration
5. differentiated to meet the needs of all learners
6. informed by assessment (formative and summative). (International Baccalaureate Organization, 2015, pp. 66-67)

In terms of how ATL may be organized and infused throughout IB subjects and core elements, across departments and school staffs, DP Coordinators and Teachers are encouraged to be pedagogical leaders (International Baccalaureate Organization, 2014). For example, the leadership for ATL planning may include:

- ensuring that teachers understand ATL and its role in the programme
- helping to decide how ATL can be addressed by subject-specific content and special activities
- developing a plan for the horizontal and vertical articulation of ATL across both years of the programme
- supporting teachers in developing ATL strategies
- providing avenues for technology integration that supports ATL. (International Baccalaureate Organization, 2015, p. 39).

The DP Coordinator is understood to play a key instructional leadership role and IB schools are encouraged to position Coordinators as part of leadership teams with the authority to plan and manage processes associated with developing the DP (International Baccalaureate Organization, 2015). While the IBO emphasizes that Coordinators are not solely responsible for pedagogically leading a school, Coordinators are viewed as playing a critical role to ATL planning and embedding ATL across teaching and learning initiatives (Clark, 2014). For example, a DP Coordinator may help to ensure that:

- there is a clear and unified approach to planning, including collaborative planning
- international-mindedness is embedded in curricular and co-curricular activities
- the three elements of the DP core play a central role in the curriculum, and support, and are supported by, the subject disciplines. (International Baccalaureate Organization, 2015, p. 26)

Supporting the work of DP Coordinators in their efforts to plan and coordinate the DP and plan for ATL, the IBO suggests, are subject leaders within a school. Subject leaders may include Teachers in the role of department heads and/or those who play a key role in the coordination of the DP (e.g. Creativity, Activity, Service (CAS) Coordinator; Extended Essay (EE) Supervisor etc.). Such subject leaders may be understood as part of a DP's pedagogical leadership team along with the DP Coordinator as well as a school's administration, librarian, and counsellor (International Baccalaureate Organization, 2015).

With the explicit introduction of ATL into IB programmes, the instructional leadership of DP Coordinators and Teachers, as subject leaders, comes sharply into focus (Hallinger & Moosun, 2012) making it necessary to better understand how such key individuals to the DP make ATL a palpable presence. The findings of this study contribute to the little that is known about DP Coordinators and Teachers as pedagogical leaders situated in public high schools.

## **2.2 Aims of research and primary research question**

This qualitative study was conducted using a single case study design (Yin, 2003), as participants took part in a series of professional learning workshops focused on ATL. The professional learning workshops were designed using the principles of Appreciative Inquiry (AI). AI is a methodological approach focused upon searching for the best in people and organizations (Whitney & Trosten-Bloom, 2010). Underlying this study was the assumption that DP Coordinators and Teachers, as subject leaders are pivotal players in the implementation and ongoing nurturing of ATL in the DP. Throughout this study, a primary aim was to work collaboratively with participants to reveal what worked well in their DPs to address ATL and to identify plans to further enhance and communicate these practices.

The primary research question informing this study asked: What impact, if any, did Appreciative Inquiry (AI) have upon participants' understanding of Approaches to Teaching and Learning (ATL) and their willingness to establish ATL practices in Diploma Programmes (DPs)? The purpose of this report is three-fold: First, to identify AI's influence upon the understanding of

IBDP Coordinators and Teachers of how ATL might be further fostered in DPs. Second, to identify the practices and methods participants used to foster ATL in DPs in response to the AI process. Third, to discuss the goals that participants identified for ATL in their DPs in relation to perceived contextual constraints and challenges.

### 3. Review of the Literature

Presently, there is little research directly related to ATL, DP Coordinators, and the IBDP. Although there is a wealth of research on the IBDP, some of which is referred to in other sections of this report, the literature in this section is focused on related areas to this inquiry, particularly the benefits and challenges of appreciative inquiry for the purposes of leading change and learning, the conditions that support teacher professional development, and teachers' perceptions of professional development.

#### 3.1 Appreciative inquiry

Appreciative inquiry (AI) is the examination of what imparts life to humanly constructed systems when they operate at their best (Whitney & Trosten-Bloom, 2010). As a strength-based approach, it purposefully focuses on recognizing and valuing the unique gifts and skills of people and organizations as social systems of boundless capacity (Whitney & Trosten-Bloom, 2010). This approach is grounded in a positive topic and is used to fuel organizational change by engaging participants in an inquiry of memorable achievements and affirmative values and beliefs (Barrett & Fry, 2005). One of the more common AI designs (Waters & White, 2015) is the 4-D cycle defined as an interrelated, chronological process referred to as discovery, dream, design, and destiny (Whitney & Trosten-Bloom, 2010).



Figure 1 The Appreciative Inquiry 4-D Cycle (Whitney & Trosten-Bloom, 2010, p. 6)

Inquiry topics are the focus for learning and innovation, as participants engage in a process of discovery, dream, design, and destiny. The discovery stage is planned to help participants identify positive features that exist in the organization and/or professional practice. This is a critical stage as it is meant to help individuals feel confidence about potential change. The dream stage encourages participants to imagine a positive future in light of what was discovered. Stage three, design, stimulates participants to articulate how their dreams can be enacted. The final stage in the process, destiny, attempts to foster in participants the desire to take personal charge for change by naming goals, and related practices, and to distribute the work amongst others to make these goals achievable (Cooperider & Srivastva, 2005; Waters & White, 2015; Whitney & Trosten-Bloom, 2010). Through a process of inquiry and dialogue focused on positive ideals, individuals and groups can create possibilities for the future to guide actions (Cooperider & Srivastva, 1987). Underlying AI are theoretical principles that inform the process; Whitney and Trosten-Bloom (2010), drawing upon Srivastva and Cooperider's (1990) early writing, identify eight theoretical principles. A brief overview of Whitney and Trosten-Bloom's conceptualization, as provided in their text, *The Power of Appreciative Inquiry: A Practical Guide to Positive Change* (2<sup>nd</sup> ed.), is as follows:

Summary of the Eight Principles of Appreciative Inquiry	
Principles	Definition
1. The Constructionist Principles	<i>Words create worlds</i> Reality as we know is subjective. It is socially created through language and conversations.
2. The Simultaneity Principle	<i>Inquiry creates change</i> Inquiry is intervention. The moment we ask a question, we create change.
3. The Poetic Principle	<i>We can choose what we study</i> Organizations are endless sources of study and learning. What we choose to study makes a difference.
4. The Anticipatory Principle	<i>Images inspire action</i> Human systems move in the direction of their images of the future. The more positive and hopeful the future images are, the more positive the present-day action will be.
5. The Positive Principle	<i>Positive questions lead to positive change</i> Momentum for large-scale change requires large-amounts of positive affect and social bonding. This momentum is best generated through positive questions that amplify the positive core.
6. The Wholeness Principle	<i>Wholeness brings out the best</i> Wholeness brings out the best in people and organizations.

	Bringing all stakeholders together in large groups forums stimulates creativity and builds collective capacity.
7. The Enactment Principle	<i>Acting “as if” is self-fulfilling</i> To really make a change, we must “be the change we want to see”. Positive change occurs when the process used to create the change is a living model of the ideal future.
8. The Free-Choice Principle	<i>Free choice liberates power</i> People perform better, and are more committed, when they have freedom to choose how to and what they contribute. Free choice stimulates organizational excellence and positive change.

(Whitney & Trosten-Bloom, 2010, p. 52)

An AI approach assumes that engaging individuals and groups in dialogue, and questions, about strengths, successes, hopes, values, and dreams is potentially transformational. In short, AI is a relational process of inquiry, situated in affirmation and appreciation. AI focuses on growth and development through making visible what gives life and sustains change for individuals and organizations (Filleul & Rowland, 2006). The act of directing energy from problems to identifying strengths has been found to benefit organizations and their ability to accelerate positive change (Cooperider & Srivastva, 2005; Jarvis, Bell, & Sharp, 2016). Although AI is most commonly known to encourage positive organizational change, Whitney and Trosten-Bloom (2010) argued that AI may be used for many different change agendas, including: organizational change, organizational and community planning, interorganizational capacity building, community development, global transformation, team and small group development, intergroup change, and personal/relational transformation (p. 25).

Bushe and Kassam (2005), in a review of 20 cases on the use of AI for changing social systems, argued that what is different about AI, from conventional organizational development, is its two-fold emphasis on changing how people think, rather than what they do, and on its support for self-organizing change processes as they emerge from new ideas. Scholars have suggested that the use of AI is well suited for leaders attempting to create change, particularly in how it looks to cultivate the best in others (Calabrese, San Martin, Glasgow, & Friesen, 2008; Daly & Chrispeels, 2005; Orr & Cleveland-Innes, 2015; Waters & White, 2015) while challenging beliefs and attitudes (Calabrese, Hummer, & San Martin, 2007). The use of asset-based approaches in schools to stimulate positive change and learning (Dickerson & Helm-Stevens, 2011; Hoy & Tartar, 2007) suggests many educational leaders are looking to the promise of strength-centered methods as a way to foster growth (Calabrese, Hester, Friesen, & Burkhalter, 2010; Daly & Chrispeels, 2005) and to

inform the change process in schools (Waters & White, 2015). Conversely, AI has its critics; most notably for its emphasis on the positive which some suggest may result in missed opportunities to address problems (Bushe, 2011, 2012; Oliver, 2005). While identifying the negative may not be productive, scholars have argued, it may still serve a purpose as part of AI, particularly when establishing trust with individuals and groups (Orr & Cleveland-Innes, 2015). Little is known, however, about how AI may inform professional development efforts to prepare teachers for 21<sup>st</sup> century classrooms. The findings of this study provide insights into how an AI framework might further complement what is already known about the conditions that foster effective teacher professional development.

### **3.2 Effective Professional Development**

There is growing evidence for the important role teacher professional learning in response to professional development initiatives plays in preparing learners for advanced education and career opportunities. Professional development programs are most commonly defined as efforts at a systematic level to induce change in classroom teaching practices, the attitudes and beliefs of teachers, and in student learning (Guskey, 2001). Globally most nations are focused on the activities related to teacher quality and professional development (Darling-Hammond, 2017; Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009; Easton, 2013; Stewart, 2011). Research increasingly suggests that teachers are more likely to develop sophisticated forms of teaching when the educational systems in which they work are organized around improvement strategies attached to teacher professional learning (Jensen, Sonnemann, Roberts-Hull, & Hunter, 2016). Jensen et al. (2016), in a review of high performing education systems (British Columbia, Hong Kong, Shanghai, and Singapore), found that such systems build upon the improvement cycle of assess, develop, and evaluate to create cultures of ongoing learning within schools. At the school level, the authors note, there several key components to sustaining such a learning culture in that:

1. School improvement is structured around effective professional learning that mirrors principles of adult learning.
2. Roles are created in schools, and throughout the system, to lead professional learning.
3. The development of teacher expertise through school-based research is widely recognized.
4. Responsibility is shared amongst teachers and school leaders for professional learning (self and others).

5. Professional learning is collaborative and scheduled into the daily schedules of schools. (Jensen et al., 2016, p. 4)

While many countries make professional development endeavours (e.g. courses, workshops etc.) required for teachers, scholars note the lack of formal support for it to happen in the daily routines of schools (Hoekstra, Brekelmans, Beijaard, & Korthagen, 2009; Richter, Kunter, Klusmann, Lüdtke, & Baumert, 2011). In contrast, Jensen et al.'s work points to the importance of formalizing teacher professional learning to be strategic, collaborative, acknowledged, and organized.

To prepare learners for 21<sup>st</sup> century demands, and the competencies and skills needed for the learning of challenging subject matter, communication, critical thought, and construction of knowledge, teachers must develop advanced teaching practices (Darling-Hammond, Hyler, & Gardner, 2017). To do so, the professional development of teachers has become critical (Organization for Economic Cooperation and Development, 2014). In a 30-year review of research conducted on effective professional development initiatives, Darling-Hammond et al. (2017) found seven shared features; such professional development they suggest:

- Is content focused
- Incorporates active learning
- Supports collaboration
- Uses models of effective practice
- Provides coaching and expert support
- Offers feedback and reflection
- Is of sustained duration (p. 4)

As part of this review, Darling-Hammond et al. (2017) note the promise of professional learning communities (PLCs) as an example of a job-embedded professional development model that includes most of these features, potentially resulting in extensive improvement at the school level.

Sustaining the effectiveness of professional development at the school level is also related to ongoing access (Blanchard, LePrevost, Tolin, & Gutierrez, 2016; Organization for Economic Cooperation and Development, 2014), to the teaching and learning conditions of schools (Ross, 2011; Yendol-Hoppey & Dana, 2010; Zepeda, 2015), to the alignment of policies to local practices (Darling-Hammond, 2017), and to positive school cultures (Darling-Hammond et al., 2017). Although the conditions that support effective professional development are widely

known, scholars have found that many professional development endeavours fail to support significant change resulting in little to no impact upon teacher practices and student learning (Garet, Porter, Desimone, Birman, & Yoon, 2001; Jacob, Hill, & Cory, 2017; Lindvall, 2017).

Contextual factors beyond teachers' control can influence the impact of training, however, despite the quality of professional development (Kennedy, 2016). Of importance to how teachers respond to professional development is the role of supportive school leadership in how school leaders (formal and informal) can influence participation in professional development, differences in instructional practices, and growth in teacher effectiveness (Kraft & Papay, 2014; May & Supovitz, 2011; Yin & Zheng, 2018). Little is known about the influence of IBDP Coordinators and Teachers, as subject leaders, upon the professional learning of DP Teachers. While the results of this study do not address this gap, we suggest, it warrants further examination.

### **3.3 Teachers' Perceptions of Professional Development**

Early on Guskey (2001) noted two crucial factors contributing to the failure of most professional development endeavours in that they do not take into account what motivates teachers to participate in such initiatives nor do they consider how the process of change in teachers occurs. Guskey argued that key to understanding change in teachers is timing; in short, they believe something works because it is observed that it works. Furthermore, Guskey (2001) argued, if teachers are to sustain new practices the following applies: Change for teachers is gradual and difficult; teachers need to see evidence of student learning; and teachers need to experience ongoing follow up support and pressure (pp. 386-388). Despite the wealth of established literature related to effective professional development and its impact on student achievement (Darling-Hammond et al., 2017), some scholars have emphasized the inconsistency of its findings (Gaines et al., 2019). Emerging from this claim is a growing area of interest in how teachers respond to training. Specifically, how teachers subjectively experience professional development (Avalos, 2011) and how positive affect emerges when professional development is perceived as aligned with beliefs (Abrami, Poulsen, & Chambers, 2004; de Jesus & Lens, 2005) or directly useful (Emo, 2015). To improve the likelihood of aligning new learning to standards, Allen and Penuel (2015) argued, how teachers perceive congruence between professional development, the tools and routines of teaching (i.e. curriculum standards and materials, instructional practices), and interactions with colleagues and leaders is critical. Gaines et al. (2019) emphasize that emotional reactions to professional development are not to be

underestimated; positive emotions can encourage engagement, enactment, and reflection whereas unpleasant emotions can lead to a lack of engagement and reduced implementation. Teachers' responses and perceptions to professional development is of particular interest to the results of this study. While IB training is a required and integral part of its programmes and of reputable quality (Calnin, Waterson, Richards, & Fisher, 2018; Dean, Tait, & Gee, 2012), little is widely known about how IB Coordinators and Teachers experience professional development. The findings of this study offer insights into how the principles and design of appreciative inquiry promoted positive emotions and reflection for participants as they engaged in professional learning about ATL.

#### 4. Methodology and Methods: Overview

This qualitative study employed a single qualitative case study design (Merriam, 2009) to investigate nine DP Coordinators and four Teachers' experiences as they took part in a series of professional learning workshops focused on ATL over the academic year of 2017-2018. Merriam (2009) described a qualitative case study as sharing the same four key characteristics that shape other kinds of qualitative research in how the focus is on the "search for meaning and understanding, the researcher as the primary instrument of data collection and analysis, an inductive investigative strategy, and the end product being richly descriptive" (p. 39). Yin (2014) outlined five rationales for the employment of a single-case design as used in the design of this study. The rationale applicable to this undertaking is Yin's third rationale for a single case, which he described as the *representative* or *typical* case (author's emphasis, p. 48). Yin proposed how studying a single case viewed as representative or typical "is to capture the circumstances and conditions of an everyday or commonplace situation...the lessons learned from these cases are assumed to be informative about the experiences of the average person or institution" (p. 48). Approaching participants' experiences qualitatively in response to the ATL workshops, enabled the research team to look for shared patterns across participants' experiences, and perspectives, from multiple qualitative interviews and observations over the course of 10 months (June 2017 to April 2018), paying particular attention to the impact of appreciative inquiry (AI) had upon participants' understanding of the practices needed to foster ATL in DPs.

##### 4.1 Nova Scotia Context and the IBDP

The NS Department of Education and Early Childhood (DoEECD) Development has heavily invested in the IB Diploma Programme. Prior to the expansion of the IBDP in 2007 to school boards<sup>6</sup> throughout the province, it was only offered in two high schools (Parkview Education Centre and Sydney Academy). The commitment to expand the IBDP was a promise made by the provincial government in an earlier plan for education *Learning for Life II* (Province of Nova Scotia, 2007). At the time, NS's efforts to expand the IBDP to public high schools was a first in that no

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<sup>6</sup> At the time of the study, the term school board was used to describe the local authority responsible for the provision and maintenance of schools. During this period of time there were eight school boards in the province. Following the release of the report, *Raise the Bar: A Coherent and Responsive Education Administrative System for Nova Scotia* (Glaze, 2018), the DoEECD implemented several of its recommendations, one of which included the elimination of elected school boards. Presently, there are seven Regional Education Centres and one Francophone school board in the province. For the purposes of this report, the term school board will be used to reflect the period of time in which the study was conducted.

other province, or state, had established the IBDP in so many schools at one time. In NS, presently, the IBDP is offered in 13 public high schools<sup>7</sup> across the province. In NS all public IB Diploma Schools have an open admission policy and any interested student may register in the IBDP in grade 11. While students are advised to take pre-IB courses in grade 10, it is not a requirement. Students who earn the IB Diploma also achieve the Nova Scotia High School Graduation Diploma (Province of Nova Scotia, n.d.).

High Schools offering IBDP in NS	Location of High School	Context <sup>8</sup> : Rural/Urban
Charles P. Allen High School	Bedford	Urban
Citadel High School	Halifax	Urban
Cobequid Education Centre	Truro	Urban
Cole Harbour District High School	Dartmouth	Urban
Dr. John Hugh Gillis Regional High School	Antigonish	Rural
École du Carrefour	Dartmouth	Urban
Halifax West High School	Halifax	Urban
Horton High School	Greenwich	Rural
Northumberland Regional High School	Westville	Rural
Parkview Education Centre	Bridgewater	Rural
Prince Andrew High School	Dartmouth	Urban
Sydney Academy	Sydney	Urban
Yarmouth Consolidated Memorial High School	Yarmouth	Rural

## 4.2 Ethics Approval

During the months of December 2016 and January 2017, following ethics approval from the St. Francis Xavier University Research Ethics Board<sup>9</sup>, and the granting of relevant permissions<sup>10</sup>, Dr. Mitton-Kükner approached the province's eight regional school boards for

<sup>7</sup> None of the public high schools identified are a part of a group of schools offering all four IB programmes (PYP, MYP, CP, DP).

<sup>8</sup> Nova Scotia is among the most rural provinces in Canada. According to the 2011 National Household Survey, 43% of the population live in areas, defined by the census, as rural. The province is experiencing a demographic shift as the population migrates to the largest urban centre, Halifax, and its surrounding communities (Gibson, Fitzgibbons, & Nunez, 2015). For the purposes of this report, the context of the school is described as rural or urban depending upon its distance from Halifax and according to participants' perceptions of services available for the teaching of students in the IBDP.

<sup>9</sup> Principal Applicant: Dr. Mitton-Kükner

<sup>10</sup> Nova Scotia Department of Education and Early Childhood Development: Ms. Tully and Columbia University: Ms. Michael

their authorization to invite participants. This process took some time and may partially be attributed to ongoing contract negotiations between the NS Government and the NS Teacher's Union<sup>11</sup>. During this period of time research requests were submitted several times (see Appendix A: School Board Permissions: Timeline of Events). The series of events surrounding contract negotiations between the NS Government and the NS Teacher's Union are relevant to the findings of this study as was the release of the report, *Raise the Bar: A Coherent and Responsive Education Administrative System for Nova Scotia* (Glaze, 2018), in January 2018.

Response to the "Glaze Report" was mixed. Following the DoEECD's announcement that it planned to move forward with the majority of the report's 22 recommendations, the NS Teacher's Union held a strike vote (CBC News, 2018). While job action did not occur despite the implementation of many of the report's recommendations, one of which included the elimination of elected school boards (McLean, 2018), for some of the participants of this study the climate in schools was, at times, influenced by these events. This series of events are mentioned as they had implications for all stakeholders involved in the NS education system and they took place while the study was conducted.

### **4.3 Participant Overview**

Non-probability sampling (Merriam & Tisdell, 2016) was used to recruit participants. We purposefully invited IB Coordinators from each of the 13 public DP schools. Nine IB Coordinators accepted to take part in the study, and invitations were also extended to IB Teachers in consultation with School Principals and participating IB Coordinators. The Teachers who were invited were identified as by their peers as Subject Leaders as they served in a variety of pivotal positions in their schools including Department Heads, CAS Coordinators, and EE Supervisors. In total, nine DP Coordinators and four Teachers for a total of 13 participants<sup>12</sup> took part in the study. Six of eight school boards, and eight of 13 DP schools, were represented in the sample with seven participants from schools in rural locations and the remaining six from schools in urban locations. The chart below provides an overview of the participants involved in

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<sup>11</sup> Between early December 5, 2016 to February 21, 2017, NS teachers and school board personnel followed work-to-rule procedures (The Canadian Press, 2017).

<sup>12</sup> At the outset of the study, 14 participants were interviewed between June to October 2017. In early January 2018 and March 2018, two participants withdrew from the study due to family responsibilities. In addition, one participant was added to the study in January 2018. The final number of participants who took part in this study was 13. The results of this study are based on these 13 individuals.

the study, their years of teaching experience and, when provided, the number of years they have been involved in the IBDP.

<b>Participants*</b> <b>*Names removed for purposes of anonymity</b>	<b>Position and Responsibilities in DP (Self-reported)</b>	<b>Years of Teaching (at time of entrance interview)</b>	<b>School Location</b>
Participant 1	IB Coordinator: 10 years IB Teacher: French	32 years	Rural
Participant 2	IB Coordinator: 15 years	32 years	Rural
Participant 3	IB Coordinator: 1 year IB Teacher: History	22 years	Urban
Participant 4	IB Coordinator IB Teacher: Geography	21 years	Rural
Participant 5	IB Coordinator IB Teacher: English 11 years in IB	20 years	Rural
Participant 6	IB Teacher: History and TOK Department Head 8 years in IB	22 years	Urban
Participant 7	IB Coordinator: 12 years IB Teacher: Biology 12 years in IB	29 years	Urban
Participant 8	IB Teacher: History EE Supervisor 7 years in IB	21 years	Rural
Participant 9	IB Coordinator IB Teacher: Biology 8 years in IB	19 years	Rural
Participant 10	IB Coordinator IB Teacher: Math 10 years in IB	18 years	Urban
Participant 11	IB Coordinator IB Teacher: English & TOK 6 years in IB	11 years	Rural
Participant 12	IB Teacher: French Department Head IB 12 years	28 years	Urban
Participant 13 (joined early January 2018)	IB Teacher: Geography Department Head 8 years in IB	23 years	Urban

#### **4.4 Data Collection and Analysis Methods**

The study was conducted over a period of 10 months (June 2017-April 2018). During this period of time, three AI workshops were conducted. To understand AI's impact, if any, upon participants' knowledge and abilities to establish pedagogical practices to enhance ATL in DPs, data was gathered using four main methods: Individual interviews, focus group interviews, observations of participants during AI workshops, and artifacts generated during AI workshops. The chart below provides an overview of the time frame in which data was collected and the total number of data sets.

<b>Data Collection Method</b>	<b>Time Frame of Data Collection</b>	<b>Total Number of Data Sets</b>
1. Individual interviews	1. Entrance: June-October 2017 (13 individuals x 1 = 13)	26

	2. Exit: March-April 2018 (13 individuals x 1 = 13)	
3. Focus groups interviews <sup>13</sup>	As part of three AI workshops: 1. October 13, 2017 (4 groups x 2 = 8 interviews) 2. January 9, 2018 (4 groups x 1 = 4 interviews) 3. March 2, 2018 (2 groups x 1 = 2 interviews)	14
4. Observations	Three AI workshops: 1. October 13, 2017 2. January 9, 2018 3. March 2, 2018	12 sets of narrative field notes (3 AI workshops x 4 research assistants = 12)
5. Participant artifacts	Generated during three AI workshops: 1. October 13, 2017 2. January 9, 2018 3. March 2, 2018	9 sets of artifacts (3 AI workshops x 3 sets of artifacts including photographs and written products = 9)

Important to the design of the study was the regular sharing of preliminary findings with participants. At each workshop, an overview of preliminary findings was shared, and participants' feedback was gathered. For example, at AI Workshop 1 on October 13<sup>th</sup>, beginning findings related to the entrance interviews were shared. At AI Workshop 2 on January 9<sup>th</sup>, an analysis of the focus group interviews from the first workshop was shared. On March 2<sup>nd</sup> at AI Workshop 3, findings related to the focus group interviews from the first and second workshops were shared. Lastly, a final sharing of preliminary findings happened during the exit interview conducted with each participant. The decision to share our understanding of the study as it emerged was purposeful in that we wanted participant feedback and we wanted to nurture the trust we had established with participants by being transparent about our thinking.

It should be noted due to positive responses to the AI Workshops, participants requested a third workshop. In the original design of the study, the third meeting was for member check purposes only. To accommodate participants' enthusiasm and desire to fully share the short-term results of their action plans regarding ATL in their school's DP (generated in AI Workshop 2 on January 9<sup>th</sup>), a third AI Workshop happened on March 2, 2018. During this third workshop,

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<sup>13</sup> For AI Workshops 1 and 2, all 13 participants were involved. For the AI Workshop 3, nine participants were able to attend. In response to participants' feedback about the number of focus group interviews held during the workshops, we reduced the number from two per workshop to one.

participants shared their short-term results, identified their mid- and long-term goals regarding ATL, engaged in a final focus group interview, and considered the use of an AI framework and activities to shape the enhancement of ATL in the DP.

As part of the design of the workshops, participants gathered the night before each workshop at a hotel in a central location of the province. This enabled the group to socialize and share a meal prior to the intensity of the workshop the next day. All of the participants overwhelmingly described this as important part of the AI Workshops as it allowed them to get to know each other and the facilitators better. Each workshop ran approximately 6.5 hours, which included a lunch break (9:00am-3:30pm). Below is an overview of the three AI workshops including its stages and affirmative questions.

### *1. AI Workshop 1: October 9, 2017: Discovery and Dream*

- Discovery (Appreciating): The best of what is: “What is ATL in the DP?”
- Dream (Imagining): Opportunities fueling the future: “What could ATL be in the DP?”
- Sharing (researchers): Preliminary results of entrance interviews and gathering feedback (member check)

The discovery phase of AI Workshop 1 was designed to encourage participants to explore their understanding of ATL in relation to an affirmative focus on who and/or what gives life to ATL in their school’s DP. Building upon what participants discovered about ATL, the dream phase in the afternoon of AI Workshop 1 was designed to foster participants’ understanding of how ATL might be further enhanced in their school’s DP.

### *2. AI Workshop 2: January 9, 2018: Design and Destiny*

- Design (Innovating): Our ideal approach: “How do we describe our ideal process of making ATL a palpable presence in my school’s DP?”
- Destiny (Delivering): Opportunities fueling the future: “What are our short-, mid-, and long-term goals and actions?”
- Sharing (researchers): Preliminary results of focus group interviews from October 9<sup>th</sup> and gathering feedback (member check)

The design phase of AI Workshop 2 was developed to provide participants with the opportunity to share ATL examples from their DP following AI Workshop 1. Drawing upon these examples, participants were encouraged to consider processes and events that would make ATL a more tangible presence by

identifying key teachers, students, interactions, and times of the school year. In doing so, participants were ready for the final stage of the AI cycle, destiny. As part of activities related to the destiny stage, participants were encouraged to identify short-, mid-, and long-term goals and actions related to the processes and action that would make ATL a more explicit presence in the DP. At the end of the workshop, participants shared an overview of their action plans.

#### 4. *AI Workshop 3 (Consolidation): March 2, 2018: Consolidation of learning and reflection*

- Sharing (researchers): Preliminary results of focus group interviews from October 9<sup>th</sup> and January 9<sup>th</sup> and gathering feedback (member check)
- Sharing (participants): Fruition of short-term goals and plans for mid- and long-term goals
- Training possibilities: AI framework and activities for the leading of IB Teachers in ATL

AI Workshop 3 was the final session and participants were given the opportunity to share the fruition, if any, of their short-term goals and actions related to any successes in implementing the action plan designed in AI Workshop 2. During the final workshop participants were encouraged to revise any mid- and long-term goals in response to short-term goal achievement or failure. As part of this final session, participants were asked about what they would like to see happen next regarding their own ATL professional development.

**Data analysis methods.** To understand the impact of AI upon participants' understanding of effective practices used to foster ATL in DP programs, our qualitative analysis was ongoing and inductive (Creswell, 2007; Merriam & Tisdell, 2016) and mindful of the eight assumptions underlying AI<sup>14</sup> (Whitney and Trosten-Bloom, 2010). Inductive analysis allowed us to pinpoint frequencies within datasets as well as across datasets (Merriam & Tisdell, 2016). First cycle coding methods that focused on exploration of participants' narrative accounts, as well as our observations of their engagement during the AI Workshops, were well suited to our research purpose, particularly as we were interested in better understanding participants' actions, processes, and perceptions (Saldaña, 2016). Exploring in this manner enabled us to identify initial codes related to participants' beliefs about the DP, the constraints in sustaining the DP in a public high school, and participants' understanding of ATL as it reportedly developed in response to the AI Workshops.

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<sup>14</sup> Whitney and Trosten-Bloom (2010) identify the eight assumptions underlying AI as: principles of constructionism, simultaneity, narrative, anticipation, positive affect, wholeness, enactment of change, and free-choice to contribute.

Thematic analysis (Merriam & Tisdell, 2016) was the aim of the second stage of data examination. Once initial codes had been established, as part of the first cycle, we engaged in pattern coding (Saldaña, 2016) to group summaries of codes from the first cycle of analysis into congruent themes. Themes were developed according to what participants reported over the course of the study as they engaged in different activities related to the stages of AI. In what follows, the themes are presented to show the overall influence of AI upon participants' professional development. The themes represent a holistic view and provide insights into the impact AI reportedly had upon participants' willingness to engage in learning about ATL, as a conceptually dense framework, and their plans for how to further enhance its presence in the DP.

## **5. Findings AI's Impact upon Participants' Understanding of ATL in IBDPs**

In this section, themes are presented based upon chronological activities related to the design of the study. First, responses to the entrance interviews (June-October 2017) are shared to represent participants' understanding of ATL prior to the first AI Workshop. Next, participants' responses to AI and evolving understanding of ATL, as it emerged in response to the three AI workshops (October 2017 to March 2018), are presented thematically. This section concludes with a discussion on participants' understanding of ATL as identified during the exit interview (March-April 2018) following the final AI Workshop.

### **5.1 Entrance Interviews**

To better understand the impact of AI upon participants' understanding of ATL in the DP, entrance interviews were conducted by Dr. Mitton-Kükner between June and October 2017 prior to the start of the AI workshops on October 9<sup>th</sup>. Entrance interviews enabled the research team to better understand participants' beliefs in the DP as well as their knowledge and perceptions of ATL.

**5.1.1 Beliefs in the value of an IBDP education.** Participants' overwhelmingly described their beliefs in the DP as a positive educative experience for students and believed that the DP's academic rigour enhances learning opportunities for students and teachers. The DP was described as a program that was appropriate for all students, and participants attributed its impact as having multiple academic and non-academic benefits for students. Several participants attributed the IBDP as making them "better teachers" while others described their professional participation in the DP, as a "privilege", particularly in the opportunities they had to work with other committed teachers and in the teaching of dedicated students. Often, participants attributed the IBDP's emphasis on critical thinking and inquiry learning as expanding their own pedagogical practices while also enhancing student cognitive and social engagement. Several participants perceived the DP as also positively influencing the other academic programs (NS Public School Programs) and non-IB teachers in their schools.

**5.1.2 Tensions in enhancing the IBDP in a public-school system.** Although participants were asked to consider and share positive stories about their experiences teaching in the DP, embedded across all participants' accounts were recurring tensions, particularly in how scheduling the DP in a public high school, two-semester system created some challenges with continuity of programming. In addition to the practicalities of scheduling the DP, participants

noted there were also challenges in dealing with the perceptions of some colleagues who saw the DP as depleting resources (i.e. teachers and students) from other programs. Participants described a lack of time for collaboration as enhancing the challenges they experienced and those situated in rural schools noted declining numbers in the DP as causing concern.

**5.1.3 Understanding of ATL prior to AI workshops.** The latter end of the entrance interview focused on participants' understanding of ATL. Participants were forthcoming and their answers revealed a range of understanding regarding ATL and its presence in the DP. When describing their knowledge, participants used words and phrases like “uncertain”, “developing”, “best practices” “process-based”, and “looking for more clarity”. Many acknowledged that they had read the ATL documents issued by the IBO and felt that ATL was a presence in the school's DP; but there was a need to “make it more explicit” to themselves and others.

In summary, during the entrance interview, participants commonly identified the need to learn more about ATL. The majority of participants only provided limited explanations of ATL and few were able to provide concrete examples of its application to student learning or classroom teaching. Many participants admitted they were uncomfortable with the question and described their understanding of ATL as at the beginning stages. Participants saw the research study and its workshop focus on ATL as a good opportunity for several reasons: to share ideas and practices related to ATL; to better promote the DP in the province; to better understand how to recruit more students; and to define an ATL framework well suited to individual schools and their particularities.

## **5.2 The Impact of AI on Participants' Understanding of ATL: Response to the Workshops**

Participants, overall, their involvement in the AI Workshops as being both reaffirming and clarifying. Within the activities of the workshops, participants felt they learned about how others were approaching ATL and became more comfortable with identifying examples of its presence in their schools. Over the course of the three workshops, participants attributed the use of affirmative language (an underlying principle of AI) as enabling them to consider the presence of ATL in positive, palpable ways. Participants noted the ongoing use of ATL language and concepts, as part of the AI Workshop, made the presence of ATL “more real”.

During the discovery phase, participants emphasized the importance of committed, excellent teachers in the implementation and nurturing of ATL. Use of the words, “commitment”, “collaboration”, “creativity” and “community” suggest that participants saw ATL as dependent upon

collaboration amongst teachers, students, administration, and parents (Phase 1: Discovery). Building upon what participants discovered about ATL, the dream phase of the AI workshop was designed to foster participants' understanding of how ATL might be further enhanced in their school's DP (Phase 2: Dream). Participants attributed their involvement in the first AI workshop as affirming and described ATL as a conceptual framework worth "being positive" about. Participants reported that it was reassuring to hear others' desire for more clarity regarding ATL while also realizing that using an AI focus encouraged them to see the possibilities of ATL, particularly to further:

- increase student numbers in the DP;
- encourage strength-based thinking amongst colleagues;
- foster collaboration;
- inform school-wide pedagogical initiatives.

As participants mapped out possibilities of ATL in the design phase (Phase 3: Design), they identified that its presence could be documented formally through events like learning showcases, innovative teaching seminars, celebration of student and teacher accomplishments, and communicating ATL to different audiences (non-IB teachers, School Administrations, grade 9 and 10 students, parents). An emphasis on informal events was also noted as important, particularly if ATL began to appear in staff room discussions in which teachers described the evidence of ATL's in relation to student cognitive and social engagement and ownership of learning. Participants noted in the destiny stage (Phase 4: Destiny) that School Principals were key to the fostering of further collaboration amongst IB teachers with regards to ATL and, in turn, this could enable coordinators and teachers to define and actualize an ATL framework that was responsive to a school and its community. In the second AI Workshop in which design and destiny phases were the foci, participants created an action plan and identified short-, mid-, and long-term goals regarding ways to enhance ATL in their DPs. In the third, and final, AI Workshop participants shared the progress they had made with their action plans in terms of short-term goals and their future plans.

The following discusses five themes to represent the impact AI had upon participants' understanding of ATL and their willingness to learn more about this conceptual framework.

**5.2.1 An appreciative inquiry approach fostered trust amongst participants.** Widespread approval for the approach and design of the AI Workshops was reported amongst all participants. Participants valued how the strength-based approach of AI fostered an environment in which participants could openly identify their successes and struggles with ATL. There was recognition amongst the group that many of them were experiencing similar struggles with their efforts to

nurture ATL in the DP, particularly as all of their schools offered a wide variety of academic programs and the DP was often isolated. For example, Participant 10, an experienced IB Math Teacher and a new IB Coordinator, at the time of the study, stated during the first AI Workshop:

I think a lot of people are kind of in the same place as us...it makes me feel better to know that other people are struggling as we are, and some have some great ideas. It's kind of nice to see that there's people all over the continuum [of ATL]. So, we're not the only ones that might be in this spot. And then, you get little nuggets [of ideas] that you can kind of move forward. At least, that's what I've really appreciated so far this morning. (Focus Group Interview, October 13, 2017)

While participants could see that some schools were further along in their efforts to infuse ATL into the DP, they all felt they could learn from the successes of their colleagues, particularly as the AI Workshops provided multiple opportunities for collaboration.

None of the participants expressed concerns about the ATL framework, as they could see the value in its focus on student learning and pedagogical principles. What did arise, however, in discussion of ATL, tended to be personal worries regarding its presence in teacher pedagogy and in the DP overall. In such moments, participants seemed focused on the conceptual density of the framework and idealizations of what, they thought, ATL was supposed to look like. Participants noted that the AI focus of the workshops was well suited to coming to terms with the complexity of ATL, particularly as they felt there was recognition for their work and efforts. For example, Participant 8, an experienced IB History Teacher and EE Supervisor, explained that,

We had an opportunity to come here, and I was not feeling very [ATL comfortable] after my first interview. I didn't feel I was doing it. But you come and listen to the stories [of others] and you feel better. Because the whole time I'm thinking, "Oh, this is what Appreciative Inquiry's supposed to do for me", and that's great. (Focus Group Interview, October 13, 2017)

Over time, participants became more open about their gaps of understanding regarding ATL, and they felt an AI approach made them more willing to discuss limitations and more eager to try new practices. Participants described AI as a learning mechanism in that it promoted reflection and evaluation for what was happening in their schools. Key to the process was seeing how AI might

inform their work as Coordinators in that to make ATL an explicit presence in the DP, they and the IB Teachers they worked with, have to collaborate. The process of collaboration, participants explained, helped all of them to understand where their DP, and its teachers, were on the ATL knowledge continuum. For example, Participant 5, an experienced Coordinator and IB English Teacher, explained that following the first AI workshop,

I emailed my teachers and asked them for [ATL] artifacts and asked them for [ATL] activities that they were already doing in their classrooms, and I got several emails back... the other thing is at our [IB Teacher] meetings, I model appreciative inquiry, and we talk about what we do right and kind of celebrate each other. I think that helps to encourage the others and give us ideas of what might work in our classrooms. (Focus Group Interview, January 9, 2018)

Because of the trust participants felt they experienced as part of the AI Workshops, they saw AI as a way of bringing ATL successfully into their DPs. All of the Coordinators who participated in the study identified that they were more comfortable talking about how to implement ATL and to foster its growth through different initiatives; but some of the challenge lay in managing and measuring its efficacy. For example, Participant 3, an early career Coordinator and experienced IB History Teacher, explained ATL as,

More innate than I thought it was... its good pedagogy and it's just a matter of verbalizing it. So, what I've learned is it's just a matter of waking up and seeing it [ATL]. So, when we bring it forward, when we move it forward into the building and make it a school-wide practice, I don't think it's going to be that challenging to do. The challenge will be, what do we do with it? That's the beast that we have to kind of conquer. How do we manage it? Or does it get managed? Do we just allow it to roll forward? That's my next concern. (Focus Group Interview, March 2, 2018)

Participant 3's emphasis on ATL as good pedagogy and the importance of articulating and documenting its presence illustrates her/his developing understanding of how to make this happen in the DP. While all participants expressed similar ideas, it should be noted that some participants were also interested in understanding how to measure its presence and efficacy.

Overall, data from the focus group interviews and observational field notes based on the AI Workshops, suggest that an AI approach used in the design of the workshops had a positive impact upon participants' developing understanding of ATL, and their desire to further engage in ATL to inform curricular and pedagogical initiatives in their DPs. Participants attributed the sense of trust they felt to the strength-based approach of AI in that they were encouraged to dwell upon the positives of their practices as Coordinators and Teachers. In doing so, they explained, they were more willing to also identify their limitations with regards to their ATL knowledge and to try new things to bridge those gaps.

**5.2.2 An appreciative inquiry approach created for participants positive connotations towards complex undertaking.** The positive approach of the AI framework was viewed by participants as creating momentum for their willingness to understand ATL. Instead of being perceived as another “add-on” for the overtaxed teacher, AI seemed to transform ATL for participants into an affirmation of good teaching practices, something that they did regularly, and which happened in schools across the province. As participants gained more understanding about ATL, they came to realize that it did not have to be something else that was loaded onto teachers' workloads. Many participants expressed concern and relief over this when they realized that they were doing ATL, to some extent, already. For example, in response to the discovery phase of the AI Workshops, two Coordinators commented on their enthusiasm for having the time to slow down enough to be able identify ATL practices that were already in place.

I think that is the thing about ATL...you are doing things and you are not even really realizing that this is part of ATL. Which is a relief! That's what [my colleague] and I discussed; we want to do more, but how and where, so it doesn't feel like an add-on or an extra. (Participant 11, Focus Group Interview, October 13, 2017)

I think we're all at the same point. So, until today ATL was more of “Oh my lord, there's another reminder of something that has to be done...you need to do this, you need to do that, and oh my gosh there's something I haven't done yet!” But [ATL] is being done. (Participant 2, Focus Group Interview, October 13, 2017)

Part of the attraction attributed to AI was that participants felt it gave them permission to acknowledge what they, and others, were doing well. Participant 8 explained that “we all want to be noticed. And in our profession, we don’t do that very well” (Focus Group Interview, October 13, 2017)

Participants acknowledged that dwelling on their own strengths enabled them to see the assets embedded in ATL. Fostering ATL, therefore, was a worthy endeavour in that they recognized its value because it mirrored a lot of what they already believed about student learning and effective pedagogy. Participant 6, an experienced IB History Teacher and CAS Coordinator, explained the importance of how to story something conceptually challenging like ATL to those immersed in the practicalities of teaching.

I think one of the ideas that came out today, you know, is that you have to be very careful with how you message it [ATL]; what you call it. You have to be really careful with that... I like that [AI] makes you feel good about what you’re doing to start with, and then come around to [the heavy stuff of ATL] without belittling [what people know]; nothing wrong with that. As long as people know what it is. (Focus Group Interview, October 13, 2017)

All of the participants saw the value in using a strength-based approach like AI to create better teacher buy-in and engagement. Because the success of ATL, they felt, is dependent upon the collaboration of invested members, and a way to create such investment was to first acknowledge the hard work of teachers. Most participants acknowledged that next steps in their DPs was to make it more explicit so that it could be documented. For many of the participants, an AI approach was the bridge to make this happen. AI was often described as being able to change the atmosphere of staff meetings and interactions in the school. Participants also noted how an AI approach could counter the vocal minority that tend to have a negative outlook on change. Participant 13, an experienced IB Geography Teacher and Department Head explained that she/he found AI,

...really empowering. As a teacher, it reinforces a lot of the good things that we’re doing and so I think that, as [my peer] said, we can take it back to our staff and have them look at all of the great things that they’re doing...reaffirm for them that they’re already doing great things. We just haven’t called them great things yet. (Focus Group Interview, March 2, 2018)

Participants' experiences speak to the power of the AI framework in that they reported feeling empowered to further advocate for ATL, despite its complexity, into their DPs. This was a notable difference between Workshop 1 and 3 as participants moved from uncertainty about what ATL might mean to their schools and teacher workload to the idea that approaching ATL through an AI lens could be a vehicle for positive change.

**5.2.3 An appreciative inquiry approach enabled participants to see how affirmative language encourages purposeful action.** Participants commented on the presence of affirmative language over the course of the AI Workshops in how it was used by facilitators and in how it informed the nature of activities and participants' interactions. The infusion of literary strategies into the AI framework was also viewed by participants as an influential factor on their positive reactions to ATL. For example, Participant 9, an experienced Coordinator and IB Biology Teacher, explained that "for me the importance of using present language was probably the biggest takeaway for me and it was affirmative language... if [someone or something] says we are doing something [positive], then you want to be doing it" (Focus Group Interview, January 9, 2018).

Participants also identified the writing of provocative statements<sup>15</sup>, one of the literacy activities used in AI Workshop 2, design phase, as having a powerful influence on how they saw the possibilities of ATL. Two participants, for example, explained the following:

I love the exercise of creating a provocative statement, choice of language, choice of examples...different sources and asking us to look for words that are action-centred in terms of where/how you want to take this process and develop it. For me that was a really useful exercise. (Participant 7, Focus Group Interview, January 9, 2018).

[The provocative statement] implied the whole school community, every single statement uses "we", so it encompasses students, guidance, admin, everybody, not just IB teachers, and that's the mind frame. We talked about what our dreams were the last time, and ours was to get more people involved and to have a blanket mission statement that's pretty

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<sup>15</sup> As part of the design stage of AI (Phase 3), the writing of a provocative statement is to encourage participants to describe not only the best of what they do, but to also name what might be. In this exercise, participants were encouraged to see ATL in the form of a vision statement, specifically using present tense to identify ATL working at its best in their DP.

powerful and says “we” are all involved. (Participant 4, Focus Group Interview, January 9, 2018).

Language was noted to be a very important factor in the drafting and the understanding of the provocative statements. The present tense of the verbs was viewed by participants as particularly important as it implied that the action has already begun to create the "world" participants wanted to construct.

Overall, participants described their appreciation for the structure of the AI Workshops and emphasized how the ongoing use of affirmative language cultivated an atmosphere of trust and respect. Participants also noted the importance of the multiple opportunities they had to use different modes (drawing, writing, talking, moving) to express their learning. Participants felt this focus enabled them to process new ideas and transform their goals into positive, achievable action plans.

**5.2.4 An appreciative inquiry approach enabled participants to identify collaboration as critical for ATL to happen in Nova Scotia DPs.** Over the course of the AI Workshops, participants frequently identified the importance of collaboration for the purposes of understanding ATL and making it a palpable presence in their DPs. There was recurring recognition that time was essential for effective implementation of ATL across the DP. Participants were adamant that Coordinators and Teachers needed time to talk and to share ideas and identified several challenges limiting the amount of time that could be dedicated to collaboration on ATL. Specifically, the impact of technology limiting face to face interactions and the little time they had in the timetable for IB Teachers to gather and collaborate. While participants recognized that time was a crucial component in making ATL collaboratively work, only one school, of the eight represented in the study, had time scheduled for collaboration. Since time was perceived to be limited, participants looked to capitalize on the time that was already allocated to other events for the purposes of ATL, particularly school-wide professional development days and staff meetings. Participant 7 explained,

A key problem in education is the lack of opportunity and time to have those conversations, those relaxed after work chats about what’s good, what’s bad, what can change and how you, how you manage that in a school day is really difficult. Most of the time everybody’s flat out and the time doesn’t exist. It does come down to those things that

[my peer] talked about, we've already got these days in the calendar for professional development, that's where those conversations have to happen. (Participant 7, Focus Group Interview, March 2, 2018).

Participants noted how the lack of collaborative planning time negatively influenced the creation and implementation of goals, particularly with what they perceived to be possible and feasible for their respective institutions.

Throughout the study, schools with greater representation at the AI Workshops<sup>16</sup> (more participants involved) generally exhibited higher degrees of comfort and participation, the creation of more precise goals and greater follow through on identified short-term goals. Because of ATL's perceived dependence upon the collaboration of invested members, participants noted that time for collaboration was a must, yet, time for collaboration was limited. Some participants noted that because of this lack of time, they felt further direction from IB would be helpful with regards to the actualization of ATL, specifically when negotiating with School Administrations. Participants overwhelmingly felt the support of School Administration and the DoEECD was necessary for the continued success and growth of the IBDP in Nova Scotia schools. They felt such support would help reinforce the IB Coordinator's role in the DP and might help create further buy-in from non-IB Teachers for the DP and its teaching and learning principles.

**5.2.5 An appreciative inquiry approach enabled participants to identify scheduled time as necessary for enhancement of ATL understanding.** Participants identified multiple benefits from their participation in the AI Workshops as previously described. Throughout the study, an area of growth around participants' understanding of ATL presented itself through the artifact examples that were shared and the action plans that were created. Although the work that was started in the appreciative inquiry workshops led to growth, participants felt they could also benefit from more ATL training. In addition, some participants were looking for a deeper understanding of how to structure ATL in their schools and expressed concern about how to make this happen without adequate time for collaboration. For example, Participant 1, an experienced Coordinator and IB French Teacher, at the outset of the workshops, noted that some of this was beyond their control.

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<sup>16</sup> The schools who participated and their breakdowns are as follows: School 1: 2 participants; School 2: 2 participants; School 3: 1 participant; School 4: 1 participant; School 5: 1 participant; School 6: 3 participants; School 7: 2 participants; School 8: 1 participant.

I think the powers that be, have to value it [ATL]...and it's not our decision for [how to schedule collaboration] time. I think we'll know if its [ATL] actually happening in our schools if those that make the decisions about staffing and scheduling [show this].  
(Participant 1, Focus Group Interview, October 13, 2017).

Some of what Participant 1 identified may be attributed to the complexity of scheduling professional learning events that benefit all teachers, particularly when a high school runs a variety of academic programs. The participants of the study were mindful of this constraint, but this issue (i.e. a lack of time and how time was scheduled) was identified throughout the AI Workshops as a problem that was not easily resolved. For example, Participant 7, also an experienced Coordinator, explained that “the leaders in the building have to be on board [in order] to get their teachers on board to make it a smoother...rollout of ideas and of implementing” (Focus Group Interview, March 2, 2018). Participants felt that a whole school approach to ATL had the potential to increase time for collaboration. Such an initiative, participants felt, could benefit all teachers and students through the development of essential learning skills and the consistent proliferation of good pedagogical practices throughout the school.

While further ATL training may also help participants better distinguish between approaches to teaching and approaches to learning, we acknowledge the timetable constraints of the schools in which participants were situated. Without adequate time to collaborate with others, some of the goals they created as part of their participation in the AI Workshops, were challenging for them to achieve.

### **5.3 Exit Interviews: The Impact of AI on Participants' Willingness to Learn: Enhanced Confidence and Increased Understanding of Collaboration for ATL Purposes**

To better understand the impact of AI upon participants' understanding of ATL in the DP, exit interviews were conducted by Dr. Mitton-Kükner between March and April 2018 following the AI workshops on March 2<sup>nd</sup>. Exit interviews enabled the research team to better understand AI's influence, if any, upon participants' knowledge and perceptions of ATL.

Participants, overall, felt their understanding of ATL had grown in response to the AI Workshops. Their answers depicted feelings of increased confidence when describing the ways their knowledge had evolved; for example, two Coordinators said:

I think that I learned that it [ATL] is actually something that we do naturally as teachers, but now we can actually put a label on it and give students kind of concrete ways of dealing with how to communicate and other aspects of the ATL according to the IB program. The great thing that I learned is that it's innate but it's something that once we name it, it gives students the abilities to then develop the skills. (Participant 3, Exit Interview, March 21, 2018)

I think probably, it [AI Workshops] opened my eyes to the realm of possibility or maybe how many possibilities there are to incorporate ATL into classrooms...I started to think that, or I believe now I suppose, that the skills can be used in all subjects. They can be incorporated, and they just look a little bit different depending on the subject. (Participant 5, Exit Interview, April 24, 2018).

Many acknowledged that their biggest take away from the AI Workshops was an enhanced understanding for how ATL represented pedagogical possibilities as nuanced within the teaching and learning of particular disciplines. Yet, participants also acknowledged that there was still room to grow. For example, Participant 7 explained, "the understanding I bring to ATL is still, ...developing and maybe even rudimentary" (Exit Interview, March 7, 2018). Similar to the entrance interviews, a range of understanding regarding ATL and its presence in the DP was still present in the exit interviews, particularly participants' varying ability to distinguish between approaches to teaching and approaches to learning. Also noted were few examples in which participants spoke of the relationship between approaches to teaching and approaches to learning. What was overwhelmingly present in participants' accounts, however, was recognition for ATL's presence in their DPs in the ways they could name examples of activities and experiences that involved ATL skills and principles.

This year one of the big things for me is I decided to do a bit of a flipped classroom. And my students are taking a bit more ownership and they want me to continue. So, I think I'm teaching them more about those learning skills that they need because they have to take initiative. They like having that ownership. They like taking it on themselves and having tools available when they're struggling with a topic, so they can go back and re-watch things. They are able to make better use of their time. So, that's been one thing; seeing the

change in the students due to me trying something new. (Participant 10, Exit Interview, April 10, 2018)

As part of the discussions throughout the AI Workshops and very present in the exit interviews, were participants' feelings about the importance of an infrastructure to support coordinated collaboration regarding ATL. While participants provided few examples of pedagogical scaffolding of ATL as it happens in classrooms, all of the participants understood the importance of a team approach when it came to the successful infusion of ATL in the DP. For example, Participant 2, a long serving Coordinator explained that,

A high point...was how [the AI Workshops] gave us an opportunity to look at some of these skills and to start talking about how can we more formally or explicitly embed these into what we already do? I think one thing that came from this, this study, and our times together, was that we're doing [ATL]. We are helping students develop these approaches to learning. Our teachers are developing their approaches to teaching and it's just a matter of making it more explicit, documenting more directly. (Exit Interview, April 25, 2018)

Participants understood that not only was collaboration important to the successful enhancement of ATL, also necessary was increasing teacher buy in for the ATL framework. For example, Participant 5 described how she encouraged her IB Teachers to name teaching goals that were connected to the ATL framework and observed the following.

And she [the Physics Teacher] asked the students, how does this make you feel? And, I thought that that was a very unexpected question for a physics class. She asked them "How does this help you to fit in to the universe? Like where, do you see your place in all you've learned?" And I felt surprise, because of her [the teacher's] reluctance and especially around what we had chosen for our goals for this year in ATL, reflection and metacognition. She was very unsure of how she was going to incorporate that into her physics classroom. So then when she asked this question, it just made me feel great because she you know, she reached it. She did it. (Exit Interview, April 24, 2018)

While participants valued getting the opportunity to network with people across the province to learn and share ideas, they described the scheduling of the AI workshops as "lifelines",

something to look forward to throughout the year. The opportunity to be together, to share and to learn from each other, with an expectation that they had work to do between sessions, was valued. Participants saw usefulness in how the AI Workshops were designed and could see how such an approach might increase teacher investment in ATL. For example, the following comments represent the recurring emphasis participants placed upon the positive influence of AI on their willingness to invest more in ATL.

The gist of it [AI Workshops] which was essentially a positive frame of mind in looking at what you've been doing up to this point and seeing how that leads into the ideas of ATL in the IB program. And so, for me, that was probably the biggest thing...how important having an appreciative approach to ATL can be and the idea of keeping an open and positive mind. (Participant 6, IB History Teacher, Department Head, and CAS Coordinator, Exit Interview, March 26, 2018)

And the possibilities I feel after your AI workshops is that the value, we give to teachers for the work that they are doing, will foster a greater involvement or acceptance of broadening the approach to ATL. I think that makes collegial relationships stronger and...you can kind of let go of a few things that you might be holding onto that get in the way of professional development. (Participant 7, Coordinator and IB Biology Teacher, Exit Interview, March 7, 2018)

But I think the big thing that I liked about it [AI Workshops] ...was that it's not about solving problems, but it's about you know, appreciating what's happening now that's positive, and then building on the positivity....it was very refreshing to look at the development of programming and development of curriculum in that way. (Participant 3, Coordinator and IB History Teacher, Exit Interview, March 21, 2018)

In summary, during the exit interview, participants commonly identified the positive impact AI had upon their willingness to engage in learning about ATL. The majority of participants were able to provide examples of ATL and its application to student learning or classroom teaching. Many participants described an increase sense of confidence in their understanding of ATL and saw the need for further collaboration with other teachers to ensure ATL is adequately infused throughout a DP. Participants saw the research study and its

workshop focus on ATL as enabling them: to reflect on their practices as Coordinators and Teachers; to identify the presence of ATL in their school's DP; to name goals for how they might further enhance ATL; and to consider how AI approach to ATL could potentially increase teacher investment. Participants described their involvement in the research study as constructive, and supportive, professional learning.

## 6. Implications and Recommendations

The single case analysis disclosed a number of findings relevant to understanding the impact an AI framework had upon participants' knowledge, and willingness, to envision how they might establish effective pedagogical practices and curricular initiatives, alongside teachers and administrators, to enhance ATL in DPs. When considering the coordination of a conceptually dense teaching and learning framework like ATL as part of Nova Scotia DPs, context becomes significant. First, public high schools in Nova Scotia run a wide range of academic programs and the school year is scheduled according to two distinct semesters. Like all IB World Schools, Administrators, DP Coordinators and Teachers in NS are responsible for how ATL is infused into the teaching of courses and across core elements; yet, there are reported challenges in response to the semester system and in light that the DP is one of many academic programs competing for attention and time with regards to collaboration and opportunities for professional development. However, participants' beliefs in an IB education and the academic rigor of the DP were intensely positive; in summary, they reported numerous examples of its comprehensive benefits (cognitive, behavioral, and emotional) for students and teachers of the DP and felt its presence in their schools clearly influenced non-IB teachers and students in favourable ways.

Participants' willingness to understand and infuse ATL into the DP was present; contending with this desire to make ATL more explicit to themselves and to others were other obligations vying for their attention. We point to the burgeoning field of research on teacher time pressure (Skaalvik & Skaalvik, 2009) and acknowledge that increasing workloads, numerous responsibilities and little time for respite, impact teachers (Skaalvik & Skaalvik, 2011); scholars argue that such working conditions enhance possibilities for teacher burnout and emotional exhaustion (Kokkinos, 2007; Peeters & Rutte, 2005; Schaufeli & Bakker, 2004; Skaalvik & Skaalvik, 2009). While this area of research is beyond the scope of this study, we acknowledge its resonance with our work. Further compounding participants' efforts to embrace ATL, was reportedly the complexity of ATL itself. While the ATL framework is comprised of the most effective skills and practices known to deepen learning (Trilling & Fadel, 2009; Wagner, 2010; Darling-Hammond et al., 2008; Darling-Hammond & Cook-Harvey, 2018), it is conceptually dense and relatively new for the IBDP. As acknowledged in the literature such complex undertakings take time to settle into the tacit knowledge of school leaders and teachers to inform program design, curriculum materials and instructional decision-making (David, Palincsar, Smith, Arias, & Kademian, 2017; Guskey, 2001; Porter, Fusarelli, & Fusarelli, 2014).

While participants saw the value of ATL and viewed the potential of ATL as a school-wide approach for teaching and learning (including non-IB teachers and students), they overwhelmingly identified collaboration as required for the enhancement of teacher knowledge and practices related to ATL. At the same time, participants described several interconnected challenges as disruptive to the possibility of ongoing collaboration in that reportedly:

1. There was a lack of scheduled time for ongoing collaboration amongst IB Teachers in the DPs in seven of the eight schools represented in the study.
2. The majority of participants' schools encouraged teachers to collaborate through subject area departments rather than specific academic programs.
3. DP Coordinators were generally unable to meet with IB Teachers on school-wide professional development days to work solely on DP initiatives.
4. DP Coordinators were highly dependent upon school leadership to recognize the complexity of the DP.

While the purposeful sample provided sound representation of DP Coordinators and Teachers from across NS and its DPs, given the small number of participants, these are not generalizable findings. Yet, of importance is to consider the resonance of these results for those in similar educational contexts. Specifically, in how participants were experienced DP Coordinators and Teachers situated in public high schools, juggling multiple responsibilities in the midst of working to implement and sustain ATL.

In light of participants' overwhelmingly positive response, while experiencing such conditions and tensions, suggests the results of this study are worthy of further inquiry, particularly as DP Coordinators and Teachers play such a critical instructional leadership role in the implementation and sustainment of ATL. What is also evident in the results, is the promise of AI to the design considerations of professional development workshops on ATL offered by the IBO. The significant impact AI had upon participants' desire to learn may be viewed through the following examples:

**Example 1:** Travel during the winter months in NS can be challenging. One participant unable to physically attend the AI Workshop 2 in January, attended the 6-hour session via Skype.

**Example 2:** At the end of the study, participants from two different schools planned AI-informed ATL professional development workshops to happen at their own schools (Workshop 1: April 19, 2018; Workshop 2: Winter 2019).

**Example 3:** Following their involvement in the study, participants from the same high school brought their ideas about AI and ATL to the school principal. In response, the principal embraced the idea and the school planned a series of ATL-related school-wide workshops over the 2018-2019 academic year.

**Example 4:** All of the participants requested a follow up learning opportunity about ATL. In response, the research team has planned an ATL IB Teacher Conference, informed by AI principles, to happen July 3<sup>rd</sup> and 4<sup>th</sup>, 2019 on the St. Francis Xavier University campus. The conference is to be co-hosted by the NS DoEECD and the Faculty of Education at St. Francis Xavier University. The conference is ATL-centered with approximately 200 teachers and administrators from across NS leading the sessions paying particular attention to ATL as it happens in subject areas, in the core, and across disciplines.

The table below provides a succinct overview of the study’s results chronologically.

<b>Phases of Study</b>	<b>Highlights</b>
Entrance Interviews: Participants’ Understanding of ATL before AI Workshops	1. Participants identified strong, positive beliefs in the DP.
	2. Participants described challenges to enhancing the DP in public high schools running a variety of academic programs.
	3. Participants identified the need to learn more about ATL and welcomed the opportunity to be involved in the AI Workshops.
Participants’ Responses to AI Workshops	1. Participants identified how an AI approach fostered trust.
	2. Participants positively associated AI with the complexity of ATL.

	3. Participants identified the use of affirmative language as an element motivating them to action.
	4. Participants emphasized collaboration as critical for ATL to be enhanced in DPs.
	5. Participants recognized more time for collaboration was needed to enhance ATL in DPs.
Exit Interviews: Impact of AI upon Participants' understanding of ATL	1. Participants identified how an AI approach fostered their willingness to learn.
	2. Participants described enhanced confidence regarding ATL knowledge.
	3. Participants described ATL as representing pedagogical possibilities.
	4. Participants identified the need for collaboration for ATL purposes.
	5. Participants' identified how an AI approach could be used to increase collective buy-in (DP and other programs) for ATL.
	6. Participants described their involvement in the research study as constructive, and supportive, professional learning.

**6.1 Theoretical Considerations: How Teachers Respond to Professional Development**

How teachers respond, and experience professional development is important to understand. Positive emotions associated with professional development have been found to foster engagement, enactment, and reflection while unpleasant reactions can encourage a lack of engagement and reduced implementation (Gaines et al., 2019). As found in other studies focused on teachers' affirmative professional development experiences, the participants of this study positively responded to learning about ATL through an AI approach, as the workshop content and activities were viewed as aligned with their beliefs (Abrami, Poulsen, & Chambers, 2004; de Jesus & Lens, 2005) about the benefits of a DP education and were perceived as connected and useful (Emo, 2015). How participants described the AI Workshops on ATL as positive learning experiences, is not to be underrated in its importance. Participants, overwhelmingly, depicted

ATL and their AI Workshop participation as encouraging, helpful, and educational. Scholars note that how teachers experience professional development can lead to change, or not. The findings of this study further affirm and contribute to this emerging field of study and emphasize the potential of an AI approach to professional development.

Of additional theoretical importance is related to the use of an AI approach to inform the design of professional development focused on ATL. The act of viewing ATL as an affirmative topic to explore while identifying strengths, directed participants' energies, which they described as benefitting their learning as well as their willingness to identify limitations regarding ATL and a commitment to do more. Scholars invested in the exploration of AI upon organizational change have found that because AI acknowledges the best in people (Calabrese, San Martin, Glasgow, & Friesen, 2008; Daly & Chrispeels, 2005; Orr & Cleveland-Innes, 2015; Waters & White, 2015) while challenging beliefs and attitudes (Calabrese, Hummer, & San Martin, 2007), it is well suited for leaders attempting to foster change. What is different about this study from the established literature, was the use of AI for the purposes of professional development rather than organizational change.

The findings of this study affirm what is known about AI in that participants reported being positively influenced by AI and its focus on the assets of teachers and DPs. Participants also saw the potential of AI for creating collective buy-in about ATL in how they might approach other teachers and administrators, using an AI framework. While participants did not describe these efforts or ideas as their attempts to lead change in their schools, they, nonetheless, emphasized that using AI created possibilities for increasing administrators and teachers' engagement with the ATL framework. As previously discussed, AI also has its critics; most markedly for its focus on the positive, which scholars suggest may cause overlooked opportunities to identify and address problems (Bushe, 2011; 2012; Oliver, 2005). In contrast to this noted limitation of AI, in our study, we did not find a focus on the positive inhibited participants from naming challenges, specifically in how they discussed issues they perceived as challenges to the successful implementation and nurturing of ATL in their DPs. Given how this group of participants responded so positively to the AI Workshops, despite constraints and challenges, it is important to consider how AI may inform professional development workshops about ATL for DP/CP Coordinators and Teachers as pedagogical leaders.

## 6.2 Design Recommendations for Professional Development Workshops about ATL

Our findings indicate that some elements of ATL were more accessible for participants to take up than others depending upon participants' years of experience in the DP, participation in prior training about ATL, and perceptions of how the IB teachers they worked with understood ATL. The document *Diploma Programme: From Principles to Practices* (2015) provides an informative overview of ATL, its learning skills and pedagogical principles and encourages DP Coordinators and Teachers to be pedagogical leaders. The IBO Programme Resource Centre also hosts an ATL website, which provides complementary support in the form of additional resources and tools for a variety of subject areas. Despite these resources, and possibly due to the conceptual density of ATL, participants identified their own uncertainty at the outset of the study and found that approaching ATL from the perspective of AI enabled them to begin with strengths and dwell upon these strengths with the aim of further enhancing such assets in the design of ATL goals. Focusing on small, manageable ATL successes allowed participants to use these as entry points to imagine more complex endeavours. For example, one participant described the mindfulness goal she and the IB teachers of her DP had identified at the outset of the school year as a way to model for their students, their belief in the importance of self-management skills for learning.

Key to understanding AI, as part of professional development design, is to view it as foundational, particularly its emphasis on inquiry as relational and situated in affirmation and appreciation. While the 4-D cycle (discover, dream, design, destiny) can play a significant role in the design of ATL workshops, also profound are the underlying principles of AI<sup>17</sup> (Whitney & Trosten-Bloom, 2010) and how these ideally inform facilitators' interactions with participants. Because ATL is a conceptually comprehensive framework, also important within the AI design of ATL workshops, is the inclusion of literacy strategies that encourage participants to make visible their understanding of ATL as it unfolds and how this emerging knowledge may inform the ATL goals they have for their DPs. Lastly, and as important as any of the design considerations previously describe, are the elements of time and accountability. Purposefully, the AI Workshops were planned to occur over a series of months (October 2017, January 2018, March 2018) knowing that ATL is the kind of framework that takes time to learn and process

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<sup>17</sup> AI principles: Constructionist Principle (*Words create worlds*); Simultaneity Principle (*Inquiry creates change*); Poetic Principle (*We can choose what we study*); Anticipatory Principle (*Images inspire action*); Positive Principle (*Positive questions lead to positive change*); Wholeness Principle (*Wholeness brings out the best*); Enactment Principle (*Acting "as if" is self-fulfilling*); Free-Choice Principle (*Free choice liberates power*)

and knowing that participants needed time in between workshops to find examples of ATL and to allow their short-term goals, as part of their action plans, to come to fruition. Sharing their ATL evidence with one another in Workshops 2 and 3 fostered a network of follow up support and pressure to show their learning (Guskey, 2001). This was fostered by the design guidelines below; these ten guidelines may inform the planning of AI informed professional development workshops about ATL.

<b>Design Guidelines: AI informed ATL professional development workshops</b>	<b>Description</b>
Design Guideline 1	Employ the 4-D cycle: Discover, dream, design, destiny.
Design Guideline 2	Identify strengths and dwell on those strengths.
Design Guideline 3	Plan on how to further enhance such strengths in the design of ATL goals (short-, mid-, long-term).
Design Guideline 4	Name ATL successes and use these as entry points to imagine more complex endeavours.
Design Guideline 5	Use real, positive language at all times.
Design Guideline 6	Infuse literacy strategies into the design at each phase to make visible for participants how their assets can inform the design and goals of ATL.
Design Guideline 7	Create ongoing opportunities for metacognitive checks about ATL understanding.
Design Guideline 8	View limitations, when they arise, as possibilities for ATL.
Design Guideline 9	Plan ATL Workshops to happen over time to allow for processing of information and ideas and to allow for the fruition of ATL goals.

Design Guideline 10	Create a supportive follow up opportunity to enable participants the occasion to report back on successes, receive peer feedback, and experience supportive-pressure to show their learning.
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### 6.3 Recommendations for IB World Schools using AI-Informed ATL Professional

#### Development: The Fundamentals

The following implementation recommendations are mindful of the variety of school contexts in which IB programmes are offered intersecting with the conceptual complexity of ATL. Like ATL in how it cannot be simplified to any one way of learning or pedagogy, an AI-informed approach to professional development is intricate and demands planning in relation to the unique contextual strengths/constraints of IB World Schools (IBWSs) and their ATL needs and goals. Successful implementation of effective ATL professional development when using AI, is dependent upon a marriage of mindful facilitation; ideally, facilitators have knowledge of AI principles<sup>18</sup>, have incorporated the aforementioned design guidelines into their planning, and have sound understanding of the school in which the process takes place. Implementing AI-informed professional development for the purposes of targeting ATL is well-suited to pedagogical leadership teams who are focused on instructional change. Such a focus, we argue, has a three-fold aim in that a pedagogical leadership team is aspiring to:

- amplify teacher buy-in and understanding about ATL across disciplines;
- document evidence of ATL’s presence;
- further enhance ATL knowledge, skills, and attitudes of teachers.

Important to note is that this kind of professional development necessitates an investment in an ongoing professional development cycle of planning, implementation, and evaluation. The following fundamentals are integral to designing effective AI-informed ATL professional development.

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<sup>18</sup> AI principles: Constructionist Principle (*Words create worlds*); Simultaneity Principle (*Inquiry creates change*); Poetic Principle (*We can choose what we study*); Anticipatory Principle (*Images inspire action*); Positive Principle (*Positive questions lead to positive change*); Wholeness Principle (*Wholeness brings out the best*); Enactment Principle (*Acting “as if” is self-fulfilling*); Free-Choice Principle (*Free choice liberates power*) (Whitney & Trosten-Bloom, 2010).

### *Planning AI-informed ATL Professional Development*

1. **Identify:** Identify the individuals who may lead this process. Ideally these individuals are members of a school's pedagogical leadership team and are willing to learn about and engage with AI.
2. **Consult:** Consult teachers: Identify perceptions of ATL strengths. Consultation may be comprised of questionnaires, interviews, focus groups and/or a combination of such methods, and is mindful of AI principles.
3. **Analyze:** Analyze the ATL knowledge and strengths that have been identified during the consultation; as part of this process consider what has not been identified. This information may be considered as a baseline of knowledge regarding the presence, and understanding, of ATL in the school.
4. **Develop:** Develop a plan for professional development that spans an academic year, or semester:
  - a. Find time for four days<sup>19</sup> of professional development in which each day focuses upon one stage of AI (Discover, Dream, Design, Destiny).
  - b. Identify a clear goal (an affirmative goal for ATL) and a set of guiding questions and objectives for this undertaking; guiding questions and goals need to be aligned with AI stages and ATL goal(s) (i.e. the ATL goal spans the year and the guiding questions and objectives are specific to each AI stage/day).
  - c. Plan to use instructional strategies that are respectful of adult learners.
  - d. Create dynamic materials and activities to support each stage of AI inquiry into ATL. Ideally literacy-based strategies are used to inform the development of materials and activities and to encourage teachers to make visible their understanding as it develops and emerges during workshops. Ideally, packets of materials are created for teachers which include overall goals, guiding questions, objectives, workshop agendas, glossary of terms for AI-based vocabulary, and lists of resources (books, videos, websites etc.).
  - e. Develop bridging activities in between each workshop where teachers are accountable for and encouraged to gather evidence that demonstrates ATL. These

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<sup>19</sup> If four days are not possible, the professional development may be planned over two days Day 1: Discover and Dream and Day 2: Design and Destiny.

ATL artifacts are in relation to each AI stage and are to be shared as part of workshop activities.

- f. Ensure that the context for the professional development is comfortable and that excellent food/beverages will be provided.
5. **Prepare:** Prepare teachers for the ATL professional development events. This entails communicating information about overall goals, guiding questions, objectives, and any ATL artifacts that teachers are encouraged to bring in addition to dates, time frames, and locations.

#### *Evaluating AI-informed ATL Professional Development*

1. **Evaluation of individual workshops:** Evaluate each session; analyze these results to inform the planning of the next workshop as aligned with the AI stage.
2. **Evaluation of the overall series of workshops:** Evaluate the overall process at the end of the workshop series.
3. **Analyze:** Analyze the results and mindfully consider teacher actions plans that were developed during the latter workshops (i.e. Stages: Design and Destiny). This information may be considered for continued documentation of ATL as well as the development of new ATL goals.
4. **Celebrate:** Celebrate the progress that has been achieved; focus on small measurable achievements and view these successes as entry points for more complex ATL undertakings.
5. **Schedule:** Schedule follow up collaboration and opportunities.

#### **6.4 Closing Thoughts: Learning from the Nova Scotia Context**

NS offers a unique opportunity to understand the phenomenon of ATL in DPs due to the number of DPs in the province, the support of the NS DoEECD, and the commitment of Coordinators, Teachers, and Administrators involved in the DP. When conducting this research on the impact of AI informed professional development upon DP Coordinators and IB Teachers' understanding of ATL, attending to how participants responded to the design and principles of AI was pivotal. Participants' positive emotions offered us insights into how AI fostered a collective willingness amongst the group to identify their ATL knowledge, and limitations, their goals for further enhancing ATL in their DPs, as well as their commitment to learning, and doing, more related to ATL. Participants recognized the importance of coming to terms with the complexity of ATL not

only for the purposes of personal teaching practices, but also in how their knowledge might support colleagues, and overall coordination ATL across the DP, with the aim of deepening student learning. All of the participants viewed the design and principles of AI as a way in which they might foster greater buy-in for ATL amongst IB Teachers as well as amongst Administrators and non-IB Teachers. Overwhelmingly, participants emphasized the importance of collaboration for the purposes of ATL education and saw school Administrators as playing a crucial role in making this happen. It is clear throughout this study that interpretations of ATL vary across schools, DP Coordinators and IB Teachers; this particular point shines light on the significance of time for collaboration and ongoing professional learning for the purposes of ATL in DPs. DP Coordinators and IB Teachers in NS are hungry for further ATL professional development and have the potential to lead new understanding of ATL pedagogy for the IBO. It is our hope and intent that the forthcoming IB ATL Conference in July 2019 will become a regular event in which the IB Educators of this province will have the opportunity to showcase their knowledge and skills.

Respectfully submitted,

Dr. Jennifer Mitton-Kükner  
*St. Francis Xavier University*

Heather Michael  
*Citadel High School, IB World School*

Cindy Tully  
Mary MacDonald  
*Nova Scotia Department of Education and Early Childhood Development*

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## Appendix A: School Board Permissions: Timeline of Events

To provide some context for the amount of time it took to secure permissions from each school board, the chart below depicts a timeline of when approvals were received and the number of participants who agreed to participate.

<b>School Board/Location*</b> <i>*Names removed for purposes of anonymity</i>	<b>Dates of Application: 2017</b>	<b>Approval Received: 2017</b>	<b>Request to Contact Principal: 2017</b>	<b>Participant response to invitation/Role in DP</b>
School board 1 Rural	Application 1: Jan. 13 Application 2: Mar. 31 Inquiry on June 20 (affirmative reply)	September 11	<ul style="list-style-type: none"> <li>• Required</li> <li>• Permission granted September 13</li> </ul>	Yes: 1 Coordinator
School board 2 Rural/Urban	Application 1: Jan. 13 Application 2: Mar. 31 Application 3: June 9	No response	N/A	N/A
School board 3 Rural/Urban	Application 1: Jan. 13 Application 2: Mar. 31	April 19	N/A (handled internally by board)	Yes: 5 3 Coordinators and 2 Teachers
School board 4 Rural/Urban	Application 1: Jan. 13 Application 2: Mar. 31	June 20	<ul style="list-style-type: none"> <li>• Required</li> <li>• Permission granted June 22</li> </ul>	No: 1 Coordinator
School board 5 Urban	Application 1: Jan. 13 Application 2: Mar. 31	April 7	<ul style="list-style-type: none"> <li>• Required for 5 schools</li> <li>• Permission granted by 4 schools; permissions arrived between the months of June to September</li> </ul>	Yes: 5 3 Coordinators and 2 Teachers  No: 4 2 Coordinators and 2 Teachers
School board 6 Rural	Application 1: Jan. 13 Application 2: Mar. 31	April 18	<ul style="list-style-type: none"> <li>• Required</li> <li>• Permission granted April 24</li> </ul>	Yes: 2 1 Coordinator and 1 Teacher
School board 7 Rural	Application 1: Jan. 13 Application 2: Mar. 31	<ul style="list-style-type: none"> <li>• Research denied: April 19</li> <li>• Decision reversed; approval granted: October 3</li> </ul>	<ul style="list-style-type: none"> <li>• Required</li> <li>• Permission granted October 4</li> </ul>	Yes: 1 Coordinator
School board 8 Rural	Application 1: Jan. 13 Application 2: Mar. 31	April 3, 2017	N/A (handled internally by board)	Yes: 1 Coordinator
Total Number of Participants (11 Coordinators + 4 Teachers)				15 <sup>20</sup> Total

<sup>20</sup> At the outset of the study, 14 participants were interviewed between June to October 2017. In early January 2018 and March 2018, two participants withdrew from the study due to family responsibilities. In addition, one participant was added to the study in January 2018. The final number of participants who took part in this study was 13. The results of this study are based on these 13 individuals.

## **Appendix B: Interview Questions: Entrance Interview (June-October 2017)**

1. For the purposes of the recording, could you state your name, years of teaching, years you have been involved with the IBDP, and the present position you hold.
  - a. I am unfamiliar with [name of school], as an outsider to the school, what kinds of things should I know? How might you explain to others who are not from the school?
  - b. Tell me about your beginnings with the IBDP.
  - c. Describe a peak experience about your work in the IBDP.
  - d. What do you value most about yourself? About the teachers you work with? About the administration? About the students? About the school? About the IBDP?
2. Can you describe the school's educational beliefs and values? How do they align with the IB philosophy?
3. Can you describe the organization of the school and its the implementation of the IBDP?
4. Curriculum:
  - a. Can you describe the collaborative initiatives used to support the implementation of the IBDP?
  - b. In what ways, does the written curriculum of the school reflect the IB philosophy?
  - c. In what ways, does teaching and learning reflect the IB philosophy?
  - d. In what ways, does assessment at the school reflect the IB assessment philosophy?
5. Describe what you particularly value about your school. What and/or whom makes it unique?
  - a. Describe a specific time when you felt especially good about working in the IBDP, a high point. A time when you felt your work in the DP and the school were particularly successful.
  - b. What elements contributed to that success?
  - c. What is your understanding of ATL in the DP?
  - d. Describe a specific time when you felt especially good about ATL in the IBDP, a high point. A time when you felt ATL in the DP and the school were particularly successful.
  - e. What elements contributed to that success?
  - f. What hopes do you have by taking part in the appreciative inquiry workshops related to ATL in the DP?
  - g. What topics do you feel are of strategic importance to your school? To the IBDP?

**Appendix C: Focus Group Interview Questions: AI Workshop 1**  
**October 13, 2017**

**Discovery phase: Focus group interview (morning)**

1. What are your impressions of the stories that were shared?
2. What did you learn about ATL during the interviews?
3. How is the everyday of ATL happening in NS DP schools?
4. What are the “root causes” of the ATL successes happening in NS DP schools?
5. What exemplary actions in yours and others’ schools have caught your attention?
6. In response to what you have learned, what do you imagine is possible?

**Dream phase: Focus group interview (afternoon)**

1. What did you learn about the possibilities of ATL during this process?
2. What are your impressions of the ideas that were shared in the opportunity map?
3. What do ATL possibilities look like?
4. How will you know if these ATL possibilities are happening in your DP?
5. What ideas caught your attention?
6. In response to what you have learned, what do you imagine is possible?
7. What would you like to add to the opportunity map?

**Appendix D: Focus Group Interview Questions: AI Workshop 2**  
**January 9, 2018**

**Design and Destiny phases: Focus group interview (afternoon)**

1. What did you learn about the possibilities of ATL during the design process?
2. What did you learn about the possibilities of ATL during the destiny process?
3. What are your impressions of the ideas that were shared in the provocative statements?
4. What do the design elements of making ATL palpable presence look like in your school's DP?
5. What are you designing? Who needs to be involved? How do you describe this ideal process?
6. What are your short-term goals/actions? Mid-term goals/actions? Long-term goals/actions? How will you know they are happening in your DP?
7. What feedback from the group resonated with you?
8. In response to what you have learned, what individual commitment have you identified?
9. What do you hope to achieve by March?

## Appendix E: Focus Group Interview Questions: AI Workshop 3

March 2, 2018

### Consolidation phase: Focus group interview (afternoon)

1. What did you learn about the possibilities of ATL during this process (since October)?
2. What are your impressions of the ideas that were shared throughout the day?
3. What progress have you experienced in making ATL palpable presence in your school's DP?
  - a. What was designed?
  - b. Who has been involved?
4. Do you have any further short-term goals/actions?
  - a. If yes, what?
  - b. Who will be involved?
5. What are your Mid-term goals/actions (2-12 months)?
  - a. How will you know they are happening in your DP?
6. Long-term goals/actions (1+ year)?
  - a. How will you know they are happening in your DP?
7. In response to what you have learned, what individual commitment(s) have you identified?
8. Do you see any possibilities for implementing an AI framework targeting ATL in the DP with the teachers you work?
  - a. If so, what might this look like?
9. Can you identify potential ways that time for collaboration can be created in your specific school?
10. What teacher/coordinator support materials in implementing/incorporating ATL would you like to see developed?
11. What would you like to see happen next?

## **Appendix F: Interview questions: Exit Interview (March-April 2018)**

1. For the purposes of the recording, could you state your name, years of teaching, years you have been involved with the IBDP, and the present position you hold.
2. What did you learn about the possibilities of ATL during these AI workshops (since October)?
3. Describe what you particularly valued about the AI workshops which targeted ATL.
4. Do you see any possibilities for implementing an AI framework targeting ATL in the DP with the teachers you work? If so, what might this look like?
5. Thinking about what you have learned, what is your understanding of ATL in the DP?
  - a. Describe a specific time when you felt especially good about ATL in the IBDP, a high point. A time when you felt ATL in the DP and the school were particularly successful.
  - b. What elements contributed to that success?
6. How do you know they are happening in your DP?
7. What attributes of the learner profile do you see present in ATL?
8. In response to what you have learned, what individual commitment(s) have you identified?
9. If you were to answer a question about ATL for the purposes of the five-year review, how would you answer it?
10. What progress have you experienced in making ATL palpable presence in your school's DP? (What was designed?/Who has been involved?)
11. What are your next steps in the school (mid/long term goals/actions)?
12. Can you identify potential ways that time for collaboration can be created in your specific school?
13. What teacher/coordinator support materials in implementing/incorporating ATL would you like to see developed?
14. What would you like to see happen next?

## **Appendix G: AI Workshop 1 Agenda (Discovery and Dream): October 13, 2017**

### **Discovery phase: Morning (9:00-12:00)**

1. Warm up
2. Brief introduction to Appreciative Inquiry and the 4-D process: Assumptions of AI
3. Setting an Affirmative Focus
4. Pair interviews
5. Sharing stories
6. Focus group interview

### **Dream phase: Afternoon (12:30-3:30)**

1. Reflecting on the focal question
2. Pairs: Dialogue
3. Groups: Collage creation
4. Opportunity mapping
5. Focus group interview
6. Looking ahead: 5-year review
7. Review of the day
8. Bridging “assignment”: Preparing for January gathering

## **Appendix H: AI Workshop 2 Agenda (Design and Destiny): January 9, 2018**

### **Design phase: Morning (9:00-12:00)**

1. Warm up
2. Review: Appreciative Inquiry and the 4-D process: Assumptions of AI
3. Review Affirmative focus
4. Review of findings: Discover (best of ATL and how it exists in one's school) and Dream phase (common aspirations of the group)
5. Introduction: provocative statements
6. Analyzing provocative statements
7. Designing provocative statements

### **Destiny phase: Afternoon (12:30-3:30)**

1. Reflecting on provocative statements
2. Identifying design elements
3. Identifying short-, mid-, and long-term goals and actions
4. Gallery walk
5. Presentations
6. Focus group interview
7. Looking ahead: 5-year review
8. Review of the day
9. Bridging "assignment": Preparing for March gathering

## **Appendix I: AI Workshop 3 Agenda (Consolidation): March 2, 2018**

### **Consolidation phase 1: Morning (9:00-12:00)**

1. Warm up
2. Review: Appreciative Inquiry and the 4-D process: Assumptions of AI
3. Review Affirmative focus
4. Review of findings: Design (Making ATL a palpable presence in the DP) and Destiny phase (identifying short-, mid-, long-term goals and actions)
5. Artifact sharing
6. Artifact display

### **Consolidation phase 2: Afternoon (12:30-3:30)**

1. Community circle
2. Identifying mid- and long-term goals and actions
3. Identifying professional learning opportunities using AI
4. Focus group interview
5. Individual Commitment statements
6. Looking ahead