

Chicago Arts Partnerships in Education
International Baccalaureate-Teaching Arts Project
Final Research Report

Chicago Arts Partnerships in Education
International Baccalaureate Teaching Arts Project (IB-TAP)
Program Evaluation
October 19, 2014

INTERNATIONAL BACCALAUREATE TEACHING ARTS PROJECT (IB-TAP) IB + ARTS INTEGRATION

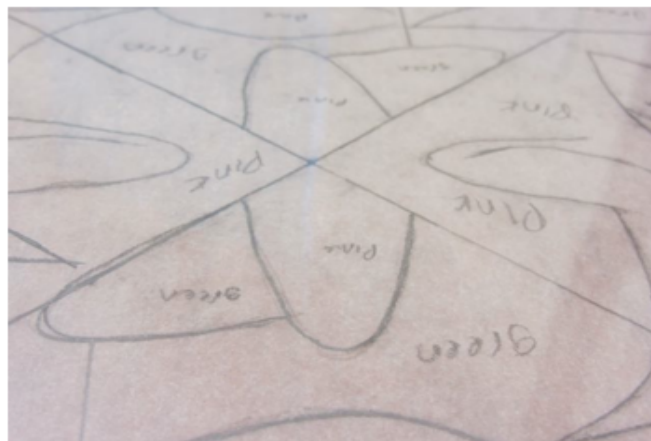
InquireSensePlanCreateEvaluateReflect



Students working together to solve a function.



Student writes her reflection in her Developmental Workbook.



Above: The design with markings of which paint color to use in each section.

Report Submitted to
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I. Introduction

A. Overview

The International Baccalaureate-Teaching Arts Project (IB-TAP), funded by the U.S. Department of Education's Arts in Education Model Development and Dissemination grant program, is a partnership between the Chicago Public Schools (CPS) and Chicago Arts Partnerships in Education (CAPE). IB-TAP is an extensive effort that builds on the CPS IB program to address the needs of students at risk of failure. This effort was made through a bold pedagogical model that has at its center the integration of the arts within a rigorous core academic curriculum, and that balances instruction cognitively, creatively, socially, and emotionally.

CPS IB Middle Years Program

In 1997, CPS adopted the IB Middle Years Program. Research studies on the IB Program indicated that students outperform their peers on state assessments, that IB standards are aligned with best practice in education, that IB has a positive impact on school culture, and that IB students have a higher acceptance rates to colleges and perform better in post-secondary education than their peers (ibo.org, 2005). Recognizing this potential for student learning, CPS has adopted the International Baccalaureate Middle Years Programme (IB-MYP) in 24 non-selective enrollment neighborhood public schools.

The IB program, reaching all students in CPS IB designated schools, works toward the education of the whole person. This is manifested through all domains of knowledge involving learning in languages, humanities, sciences, mathematics, and the arts. Furthermore, the IB program requires study across a broad range of subjects drawing on content from educational cultures across the world, gives special emphasis to language acquisition and development, encourages learning across disciplines, focuses on developing the skills of learning including the study of individual subjects and of trans-disciplinary areas, provides students with opportunities for individual and collaborative planning and research, and includes a community service component requiring action and reflection. By focusing on the dynamic combination of these elements, the IB program brings increased academic rigor to challenged schools.

CAPE

The Chicago Public Schools has also made a commitment to arts integration through its multifaceted partnerships with the Chicago Arts Partnership in Education (CAPE). CAPE works toward a future in which young people are empowered, through education and the arts, to fully realize their academic, creative and personal potential. CAPE's mission is to increase students' academic success, critical thinking and creativity through research-based, arts driven education. Based on its current research, CAPE is contributing to the educational field clear evidence that an arts integrated curriculum can significantly impact the achievement of low-income, at-risk students (Catterall 1999; Burnaford & Scripp, 2011).

Even with a strong alliance between the CPS and CAPE, arts programming does not reach every school, classroom, or student. A disparity of arts opportunities exist, particularly in low performing schools (The Chicago Community Trust, 2003). Additionally, the IB-MYP program in Chicago struggles with fully implementing the IB program's approaches to creating inter-disciplinary and thematic curriculum, meeting the IB-MYP requirements for hours of arts instruction, and producing student art work that fully represents the IB creative cycle. While "some degree of curriculum integration occurs in schools, this is still an area in need of improvement," with more advanced levels not being apparent (About Learning, 2005).

IB-TAP: A Synthesis of IB and CAPE Methodologies

The IB-TAP program was designed to address this need by building on the strengths of two pedagogical models. One model is CAPE's inquiry based arts integrated model in which "the processes often embodied in the art forms are used as tools" for arts and academic learning (Burnaford, Aprill & Weiss, p. 13-14). The other model is the IB Design Cycle through which students design artworks, inventions and products. Students also maintain process portfolios to guide their creations.

The IB-TAP project rests upon the CAPE-developed arts-integration model that will strengthen the IB framework, moving schools forward in the full realization of the IB frameworks and priorities. CAPE brings to IB-TAP a tested approach that emphasized professional collaboration in developing integrated curriculum based on arts and academic learning standards. The collaborative planning approach (classroom teachers, arts specialists, and visiting artists) was designed to develop leadership and instructional effectiveness. Through collaboration, participants move beyond "arts activities" into arts integrated instruction that incorporates disciplined reflection on teacher practice and student achievement. The results of this approach have been demonstrated to have measurable positive impacts on both student achievement and teaching practice (Catterall and Waldorf, 1999, DeMoss and Morris, 2002).

In the IB-TAP program, both IB's and CAPE's distinct but complimentary approaches are synthesized into the "IB-TAP Creative Cycle", an inquiry based approach that emphasizes creative and metacognitive process. The seven phases of the IB-TAP Creative Cycle are Inquiry, Sense, Plan, Create, Document, Evaluate, and Reflect. This model provides classroom teachers, arts teachers, and teaching artists with a practical and research-based framework for designing arts integrated curriculum.

The IB-TAP Creative Cycle is implemented through a portfolio process. Teachers and students developed Arts-Integrated Developmental Workbooks (AI-DW) that documented the processes and artifacts created during implementation of the IB-TAP curriculum units. The AI-DW portfolios are organized through the IB-TAP Creative Cycle and include the following aspects:

Inquiry: Teachers, teaching artists and students develop an initial inquiry that may evolve over the course of the project. The inquiry can be related to a content area concept or theme, an arts theme/process or skill, a social cultural issue or a personal/reflective theme. Inquiry questions might stem from the teacher/teaching artist inquiry question for the unit, or the students' own.

Sense: Students actively engage in research as a vehicle for further developing their ideas for a culminating creative product that may be group or individually created. Student research may focus on personal areas of interest related to unit inquiry questions as well as potential artmaking processes.

Plan: Students document, plan and define strategies in order to develop their work of creation.

Create: Students create artwork, make connections related to unit inquiries, and share their knowledge using multiple media.

Document: students track their growth and progress through multi-media documentation (photo, video, writing, art work, compositions, etc.)

Evaluate: Students self assess and search for evidence of their learning and growth.

Reflect. Students complete a reflection based upon their original inquiry questions.

This IB-TAP pedagogical model is facilitated through a rigorous program of ongoing teacher professional development, collaborative planning opportunities for teachers and teaching artist to co develop and implement arts integrated curriculum, and mentoring for IB-TAP teachers from experienced arts integration practitioners.

The IB-TAP program was implemented in 6 treatment schools and 4 control schools. 6th, 7th and 8th grade IB classrooms participated for three consecutive academic years: 2010-2011; 2011-2012; and 2012-2013.

B. Relevant Review of the Literature

Arts Integration

Many have advocated that the arts are an essential component of the educational process (Eisner, 1982; Bresler, 1995; Burnaford, Aprill and Weiss, 2001, Gardner, 2006;) and

research has documented the potential of the arts to impact student learning. Findings include academic gains in language arts as well as mathematics by students involved in the arts compared with their peers in traditional classrooms with no arts involvement (Scripp, et. al, in press; Walker, Tabone, Weltseck, 2011).

Multiple aspects of arts integration settings foster these gains. Arts integration provides opportunities for students to fully investigate the world of knowledge and express themselves in similar ways inside the classroom. Two important conceptual ideas are foundational to the transformative aspects of arts integration. First, arts integration is an inquiry-based approach. As such, it “modifies conventional notions of art practice as self expression or object making to cast it primarily as an exercise in knowledge construction: a process of coming to know” (Marshall, 2007, pg. 24). The IB-TAP creative cycle exemplifies this inquiry-based approach. It fosters a “constructivist, reflective practice where the artist-practitioner shapes findings” (Gray & Malins, in Marshall, pg. 24) in order to make meaning.

Second, arts integration practices are also based upon sociocultural theories of learning which emphasize the important roles that social interaction and collaboration play in fostering knowledge acquisition. In highly collaborative classrooms, communities of practice naturally develop as individuals create social networks through common goals and practices (Wenger, 1998). Through IB-TAP, these communities had the potential to develop rapidly in the context of teacher/artist and student collaboration as they engage in the IB-TAP Creative Cycle. These communities of practice foster learning because each individual who creates the learning community also has the potential to be transformed by it, through changes in each individual’s knowledge and practices (Wenger, 1998).

Professional Development

A core aspect of IB-TAP is continuous professional learning. Research indicates that teachers are most likely to improve practice when they: plan their own learning activities, have opportunities to engage in on-going dialogue about their work with mentors and colleagues, receive follow-up support, and can observe the teaching of colleagues to deepen their professional knowledge (Danielson, 2000; Odell & Huling, 2001). Oreck (2004) reports that teachers practicing arts integration require professional development that strengthens their self-efficacy relative to the arts, develops their understanding of the arts, and improves their art-making capacities. The development of teachers in the use of the arts, collaborative curriculum development, and the partnering of community resources are all inter-related processes that grow over time (Horowitz, 2004).

Another hallmark of the IB-TAP program is collaborative practice between teachers, school arts teachers and teaching artists. The IB-TAP residency model is based on CAPE’s approach to connecting teaching artists to schools as documented in *Putting Arts in the Picture: Reframing Education in the 21st Century* (Rabkin & Redmond 2005). The strengths of this approach are as follows: (1) ample planning time for the school-based teams to develop, implement, and refine arts integrated curricula; (2) structured

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collaboration for teaching artists and teachers supported by site-based facilitation; and (3) arts integrated curriculum models that align with the Illinois Learning Standards and address IB MYP priorities.

Research indicates that collaborative practices through arts partnerships impact both teacher retention and whole school reform. CPS statistics indicate a teacher attrition rate of 32 percent over the first five years. This factor negatively impacts the continuity of instruction within schools and creates a need for support systems and incentives to motivate teachers to stay in the profession. Recent studies indicate that teachers who integrate the arts into their teaching practices undergo positive changes in their attitudes towards the profession (Deasy 2002). These teachers found that integrating the arts increased their enjoyment of teaching and enthusiasm and commitment to the profession. The ideal environment would enable teachers to collaborate with each other, with teachers from other disciplines, with artists, and other arts providers (Burton, Horowitz, & Abeles, 1999). Studies have shown that arts education partnerships play valuable roles in sustaining whole school reform (Horowitz, 2004). As a result, teachers became more sophisticated at working with visiting artists and coordinating their curriculum with artists and other partners (Horowitz, 2005). Partnerships also significantly impact art partners. Waldorf (2000) examined the teaching artists' perspectives on participation in CAPE partnerships. The artists reported that they are most effective when they have close relationships with teachers and clear understandings of academic goals. As such, these collaborative practices enhance the potential for mentorships to develop. Mentoring relationships establish reciprocal learning communities that serve as professional development for teachers and teaching artists (Weiss and Lichtenstein 2008). IB-TAP offers a "new vision for mentoring where mentors are focused on educative mentoring and critical perspectives; they are viewed as inquirers and learners; seen as change agents and leaders; and their work is shaped by professional knowledge based on the needs of 21st century new teachers and schools" (Achinstein and Athanesis 2006). Coaching and mentoring allows "teachers to make their work public and assist in the reconstruction of the profession...as guides for new teachers and as agents for re-culturing schools" (Lieberman & Miller 2004).

C. IB-TAP Professional Development Program Description

Professional Development in IB-TAP was facilitated by ongoing workshops and mentoring relationships between teaching artists and classroom teachers. Each of these will be described and the resulting teacher outcome variables used for multivariate research methodology will be discussed on pages 12-13.

Professional Development Workshop Topics

Year	Topic	Big Ideas
I: September 2010	CAPE Methodology and IB	<ul style="list-style-type: none"> Interdisciplinary Learning/planning interdisciplinary units

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		<ul style="list-style-type: none"> Processes of collaboration and co-teaching
I: March 2011	Developmental Workbooks	<ul style="list-style-type: none"> What is Documentation IB-TAP Creative Cycle
I: May 2011	Year One Reflections	<ul style="list-style-type: none"> Sharing Year One Projects through Teacher AIDW's
II: November 2011	The Arts Integrated Developmental Workbook as a Tool for Learning	<ul style="list-style-type: none"> Inquiry and Evidence Using the IB-TAP creative cycle to organize documentation
II: February 2012	IB-TAP Portfolio Conferences	<ul style="list-style-type: none"> The IB-TAP Portfolio Conference process The potential for portfolio interviews to reveal student learning
II: March 2012	Inquiry and Artmaking	<ul style="list-style-type: none"> Relationships between artmaking, inquiry and learning. Analyzing Artifacts to illuminate creative processes
II: June 2012	Sharing Developmental Workbooks	<ul style="list-style-type: none"> Analyzing units to articulate implications for Year III curriculum
III: November 2012	Developing a sense of IB-TAP Ownership	<ul style="list-style-type: none"> Articulating IB-TAP achievements and challenges Re-envisioning IB-TAP Units
III: January 2013	Plans for Exhibition/Sharing	<ul style="list-style-type: none"> How will planning exhibitions/installations and performances contribute to IB-TAP participants professional learning
III: June 2013	Telling the Story of Teaching and Learning in IB-TAP	<ul style="list-style-type: none"> Analyzing units to capture teacher and student learning in IB-TAP.

During Year One, professional development workshops aimed to strengthen participants' abilities to plan interdisciplinary curriculum; to increase their knowledge of collaboration and co-teaching strategies; and to increase their understanding of documentation and portfolio processes. Specific topics included employing the IB-TAP creative cycle for curriculum development, developing curricular inquiries, assessing student artifacts created during IB-TAP units, and methods for teacher/teaching artist collaboration.

Year Two professional development focused on the use of documentation and portfolio processes. Participants deepened their knowledge and application of the student and teacher AIDW portfolios and learned a variety of strategies for analyzing IB-TAP unit artifacts and their students' AIDW portfolios.

Participants engaged in guided reflection during Year Three professional development. They systematically analyzed their curriculum units, re-envisioning their plans based upon what they had learned from two years of implementation with multiple groups of students. Teachers and teaching artists explored strategies for disseminating their work on a larger scale in a way to reveal their own and their students' learning. They also received information about how to stay connected with CAPE and arts integrated resources available to them.

Teaching artists were also an effective source of professional learning for IB-TAP teachers. Through a focus group with seven out of eleven IB-TAP teaching artists, they articulated the following learning goals for their teacher collaborators:

- Teaching artists' initial learning goals for the teachers was for them to achieve a level of comfort within an arts integrated instructional context. As one teaching artist noted: *I think the first step is to not have them be scared of the art. I would say the majority of my teachers were like it's your thing, and they were fine with being learners at the time, but not necessarily taking it on as teaching it.* Another stated: *My goal was basically like opening them up to what art actually could be.*
- Teaching artists wanted the classroom teachers to learn about and teach artistic processes with them. As one teaching artist stated: *I wanted them to not only teach their aspect, but when we had those combined sessions, that they would also be teaching the artistic process as well.*
- Teaching artists wanted the IB-TAP teachers to incorporate artistic processes in their units independently, and to *get deeper into the CAPE methodology*, as noted by comments such as this one: *I think I wanted them to have more independence.* Multiple teaching artists noted that during the final year, this was achieved: *And I have to say that happened over time. For example, within the third year we did the same block print project. My co-teacher was actually showing them how to carve at that point. She knew what to do, and that was...then I could leave the room and go print with students and she could help them continue carving if they were doing that, for example. Or the math teacher was able to show some painting techniques as well.*

The workshop topics, experiences and learning relationships with teaching artists provided an environment conducive to teacher learning and transformation of teachers' instructional practices. Specific areas of practice included collaboration, arts integration, documentation and reflection. These areas of practice will be emphasized in this report.

D. Overview of Report Contents

This report format will include the following:

- An Introduction including a brief overview of IB-TAP, a brief literature review of the most significant prior research related to this research, a comprehensive description of the IB-TAP professional development program and overview of report contents. Pages 3-10.
- An Overview of the Research, including the purpose of the evaluation, the research questions, and audiences for the report. Page 11.
- A Research Design section, including the research design, data collection procedures, and analytic techniques employed to illuminate findings and interpretations. Pages 12-16.
- The Presentation of Research Results for each teacher outcome variable, including Interpretations. Pages 17-68.
- Rankings of Teacher Outcome Variables for Multivariate Analysis. Pages 69-91.
- Findings and Conclusions. Pages 92-95
- References. Page 96
- Appendices: Following page 96

II. Overview of the IB-TAP Research

A. Purpose of the Evaluation and Research Questions

The purpose of the IB-TAP research is to assess how arts learning supports teacher professional development and student academic achievement. The research questions are:

1. How does arts integration, combined with the IB Middle Years Programme, improve educators' instructional practices?
2. How does arts integration, combined with the IB Middle Years Programme, impact the development of high-quality arts integrated curriculum?
3. How does arts integration, combined with the IB Middle Years Programme, impact student achievement in the arts and other academic areas?

The research is quasi-experimental in nature. Evaluation was accomplished through a time-series model, using mixed methods to assess teachers' and students' growth. Comparisons were drawn between six randomly selected treatment group schools and four matched control-group schools that are not participating in the project.

B. Audience

The audience for this research is diverse. Specific audiences include Chicago Public Schools administrators, teachers and parents, the international network of IB school educators, and local and national arts integration specialists. Other audiences include local and national policymakers interested in practices supporting increased student learning; charitable foundations supporting education; and educators interested in interdisciplinary curriculum and arts learning.

III. Research Design

A. Overview

IB-TAP research was conducted at ten schools (six Treatment and four Control) in 6th, 7th and 8th grade classrooms. 32 Treatment teachers, 45 Control teachers, and their students were the primary participants.

B. Research Design

The IB-TAP project used a Quasi-Experimental Design to assess progress, provide feedback for program modification, and explore the impact of an arts integrated curriculum on the growth of teachers and students.

The Independent Variables related to aspects of the IB-TAP Program, including the following:

- Professional development opportunities through ongoing workshops and teacher/teaching artist partnerships.
- Development and implementation of arts integrated curriculum units inclusive of academic content areas such as language arts and science with artforms such as visual arts, performing arts, and musical composition.
- Portfolio practices designed to provide a narrative of the curriculum, refine teaching, set direction for the design or culminating artifacts, and capture personal learning.
- Dissemination of practices by sharing curriculum units, artifacts and lessons learned.

The dependent variables were teacher and student outcomes. Teacher outcomes included collaboration/ partnership skills, arts learning, arts integrated instructional practices, documentation skills and reflection. Student outcomes included achievement test scores, arts learning and academic learning.

The specific teacher outcome variables, derived from an analysis of professional development workshop artifacts and a teaching artist focus group, included:

- Collaboration between IB-Teachers and External Arts Partner Teaching Artists. In the IB-TAP program, teachers and teaching artists collaborated to address academic and artistic questions and challenges, and incorporated these ideas into the planning, implementation, and evaluation of the arts integrated curriculum.
- Arts Integration. Building on collaborative ideas, teachers and teaching artists developed arts-integrated curricula that drew connections between arts and non-arts subject matter in subjects such as math, science, technology, humanities,

English language arts, Spanish, and French. The artist and teacher then worked together with the students, co-teaching and co-experimenting throughout their partnership. In general, teacher and teaching artist teams remained intact over the three years. Each IB-TAP teacher created 2 units each year, respectively with a different teaching artist.

- Documentation consisted of multimedia artifacts to create narratives of the curriculum and capture evidence of teacher and student learning.
- Reflection on teaching and learning in order to refine curriculum, note teacher professional learning, and better understand students as learners.

Formative evaluation was conducted on an annual basis.

C. Data Collection Instruments and Procedures

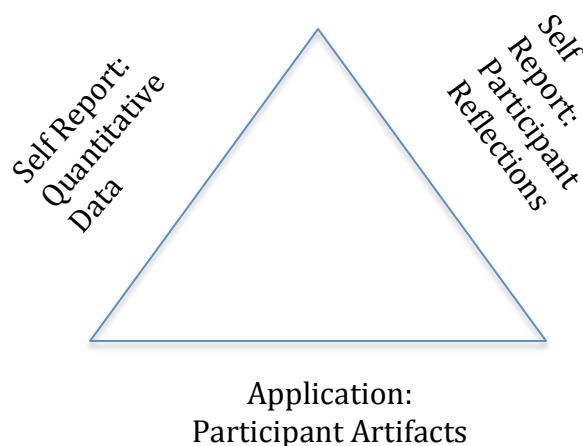
Research must systematically capture the arts integrated context through tools designed to illuminate *how* arts integration fosters teachers' transformative classroom practices and growth in student achievement. Because communities of practice are complex and relational, learning outcomes are best investigated through connected research designs (Smolin & Lawless, 2011). For example, Burnaford (2006) describes layered research, a connected research model in which teachers are "engaged in documenting and investigating their work with respect to student learning and their own professional development" and the curricular decisions that they make (Burnaford, 2006, p. 2). Through the "culture of evidence" that teachers and researchers create, educators can learn whether and how "arts integration enhances specific learning in nonarts disciplines"(35).

Desimone (2009) also advocates connected approach to research that conjoins teacher professional learning with teacher practice and student learning outcomes because they are inextricably bound. She maintains that by examining patterns and ideas that thread through professional development workshops and classroom contexts, researchers can better establish relationships between teacher learning, its impact on their classroom practices and resultant student learning outcomes.

Connected research should soften boundaries between research and practice settings. The IB-TAP Creative Cycle achieved this because it provided a common framework for teachers, teaching artists, students and researchers. Analytic tools emphasizing the seven phases of the IB-TAP creative cycle provided the operational definitions common to implementing and documenting units; teacher and student reflection of their experiences; and researchers instruments. These protocols included document analysis, observation scales and pre/post surveys. The IB-TAP Creative Cycle facilitated common knowledge among professional developers, artists, teachers, students and researchers through shared vocabulary, joint creative production and linking of professional practices.

The research participants for this current study were 32 Treatment and 45 Control classroom teachers in 10 urban IB schools.

To measure the teacher outcome variables of collaboration, arts integration, documentation and reflection triangulated data sources were analyzed. The following model depicts these categories of data:



Self-Report Data collection tools included:

- IB-TAP Teacher Pre/Post Survey: This survey contains open and closed ended items. It is administered to teachers in both treatment and control school classrooms. It was designed to investigate the instructional conditions in which the IB-TAP arts integrated interdisciplinary units unfolds to compare the treatment classroom teachers' knowledge, attitudes and behaviors concerning IB-TAP program concepts at various points in the program and to compare treatment and control classroom teachers' practices. This survey was administered to the sample of teachers in treatment and control classrooms/schools prior to and following the implementation of the IB-TAP arts integrated interdisciplinary units in Years 1 through 3. The teacher surveys provided a format to track how IB-TAP professional and curriculum development impacted teachers' knowledge, beliefs and application of arts integration. Paired sample t test statistics were used as an indicator of treatment schoolteachers' professional growth during the IB-TAP program, and independent samples t test statistics were used to compare treatment and control teachers' group means.
- IB-TAP Professional Development (PD) Exit Surveys: This survey contained open and closed ended items and was administered to teachers in treatment schools. Following each IB-TAP professional development session, participants rated the extent to which they incorporate IB-TAP instructional practices into

their current instructional practices. Questions on the survey reflected the program constructs, including collaboration and the IB-TAP Creative Cycle.

- IB-TAP Teacher Interview Protocol: This semi structured interview protocol was designed as a follow-up to the IB-TAP Pre/Post surveys. The sample of 23 IB-TAP teachers in treatment schools was requested to discuss and detail insights and examples they had drawn from the IB-TAP Pre/Post Survey protocol. Interviews were transcribed and the research team accomplished a thematic analysis based upon the constructs of collaboration and the IB-TAP creative cycle.

Tools that systematically measured teachers' application of IB-TAP program concepts included:

- The IB-TAP Effective Teaching and Student Engagement Observation Protocol. This tool consisted of closed ended items designed to record and analyze two lessons (beginning and end) in each treatment teachers' classrooms over the course of their IB-TAP Arts Integrated Interdisciplinary Units. The constructs that enabled a consistent look of creative teaching across IB-TAP classrooms included the IB-TAP Creative Cycle (Page 4) and constructs adapted from the Center for Research on Education, Diversity and additional items adapted from the Center for Research on Education, Diversity and Excellence's (CREDE) Observation Protocol. This protocol highlights effective research based teaching practices found to facilitate student engagement, including collaborative teaching and learning: Working Together, Connecting instruction to students' lives, and providing challenging activities.
- Teacher AIDW Artifact Analysis Tool with Rubric and Scoring Guide. Curriculum artifacts were analyzed to evaluate artifacts such as the MYP curriculum planning documents and the Teacher AIDW's. An associated rubric and scoring guide were developed in order to analyze these curriculum artifacts.
- AI-DW Portfolio Conferences. IB-TAP Teachers and Students in Treatment school classrooms participated in the student AI-DW portfolio conferences. A group of three students were pre-selected for each interview based on their baseline ISAT scores: one high scoring student, one average scoring student, and one low scoring student are asked to present their IBTAP AI-DW's and demonstrate their knowledge of the arts integrated concepts explored in their IBTAP projects. Following student presentations, Teachers discussed the student work they observed during the conferences through a post-session interview.
- The Arts Integration Performance Assessment Interview (AIPAI) gauged the potential difference in arts and arts integration understanding between

control and treatment students. The AIPAI was administered to a stratified sample of IB-TAP central cohort students in treatment and control schools (grade 8) in the final year of the project.

Please refer to appendices A through H to review the IB-TAP Research Tools.

D. Analysis of Data

The following analysis were conducted to arrive at the research results:

- Descriptive Statistics were gathered to describe patterns related to teachers' collaboration skills, arts integrated practices, documentation of IB-TAP curriculum, and systematic reflection on their own and their students' growth.
- Independent Sample t testing was accomplished annually to compare treatment and control teachers' results on the IB-TAP Pre/post Teacher Survey. Pre/post surveys were designed to examine outcome variables such as partnership skills, curriculum integration, reflection and documentation.
- Paired Sample T-testing was accomplished annually to compare treatment classroom teachers' outcome variables at the beginning of the program (baseline) and annually following their first, second and third year of participation in IB-TAP. This analysis was accomplished for the IB-TAP Pre/Post Teacher Survey, the IB-TAP ET Classroom Observation Protocol, and the IB-TAP PD Exit Surveys.
- Content analysis techniques were used to describe patterns that emerged in teachers' open-ended responses on the IB-TAP Pre/Post Surveys, IB-TAP PD Exit Surveys, and annual IB-TAP Teacher Interviews.
- Content Analysis Techniques and paired sample t-testing on the AIDW Rubric Scores were conducted annually to analyze teachers' AIDW Digital Curriculum Templates.

IV. Presentation of Research Results

Overview

In this section, research results related to IB-TAP teacher practice variables are shared. Each variable contains summaries drawn from the annual formative evaluation findings, and incorporate a range of data sources. *Text appearing in italics signifies the participants' own words.*

A. Variable 1: Collaboration and Partnership

(Relates to Research Question 1: How does arts integration, combined with the IB Middle Years Programme, improve educators' instructional practices?)

Partnership and collaboration are core IB-TAP values. These values were addressed in professional development workshops and were a key feature of IB-TAP program implementation in each of the IB-TAP treatment schools. In IB-TAP classrooms IB teachers and CAPE's teaching artists collaboratively planned, implemented and evaluated each IB-TAP curriculum unit. The Chart below summarizes the teachers' growth trajectory over the projects' three years.

YEAR ONE	YEAR TWO	YEAR THREE
<p>IB-TAP teachers prepare to collaborate</p> <p>IB-TAP teachers have more experiences co-planning rather than co-teaching</p> <p>IB-TAP Teachers value collaboration and planning</p> <ul style="list-style-type: none"> • <u>Hi scale responses</u>: Preparing for collaboration: Teachers brainstorm ideas prior to meeting with teaching artists. • <u>Low scale responses</u>: teachers and teaching artists collaborate during class time/intra school collaboration between IB-tap and non ib-tap teachers. <p>Teachers reported learning more about collaboration thru:</p> <ul style="list-style-type: none"> • PD workshops • Planning with a teaching artist 	<p>Teachers deepen their collaboration and there are significant differences in collaborative instruction from year 1 to Year 2</p> <p>Collaboration between teachers and teaching artists was observed more frequently at the end of units as compared to when they began teaching their units.</p> <p>Teachers report collaboration is a considerable focus that frequently happens.</p> <p>All teachers interviewed (20) indicated that they were co-teaching with teaching artists. They described the various co-teaching strategies they implemented.</p> <p>Teachers report they better understand what teaching artists bring to the curriculum.</p> <p>Teachers report student collaboration is more prevalent.</p>	<p>Teachers developed instructional ideas from the collaborative modeling and sharing that occurred in pd sessions</p> <p>Teachers increased research efforts of both arts and academic content as they collaboratively developed units.</p> <p>Teachers described the methods they used to collaborate with teaching artists.</p> <p>Teachers explicitly modeled collaborative behaviors to increase student collaboration.</p>

Participating teachers entered the IB-TAP program valuing collaboration. They reported having more experience co-planning with their peers than actually co-teaching. Following IB-TAP Year 2, IB-TAP teachers evidenced an increase in collaborative instruction and co-teaching. With a greater understanding of their teaching artists' creative processes and teaching methods, teachers became more capable of incorporating academics within the integrated units. In Year 3, teachers acquired content area knowledge in both arts and academics as a result of collaborating with teaching artists and IB-TAP teachers in other treatment schools.

1. Year One: Establishing the Baseline of IB-TAP teachers Partnership and Collaboration Skills.

... if I was doing a project in math that also might involve art, so then I would meet with the art teacher and we would figure out what I would want to get out of the project and what she would like to get out of the project, and then we would kind of share resources, and she would enhance what I do in the classroom.

IB-TAP 6th Grade Teacher

This quote succinctly describes how teachers' collaborated prior to their IB-TAP involvement. While they co-planned interdisciplinary units with other IB teachers, collaboration occurred mostly for planning and not co-teaching.

YEAR ONE
<p>IB-TAP teachers prepare to collaborate</p> <p>IB-TAP teachers have more experiences co-planning rather than co-teaching</p> <p>IB-TAP Teachers value collaboration and planning</p> <ul style="list-style-type: none"> • <u>Hi scale responses</u>: Preparing for collaboration: Teachers brainstorm ideas prior to meeting with teaching artists. • <u>Low scale responses</u>: teachers and teaching artists collaborate during class time/intra school collaboration between IB-tap and non ib-tap teachers. <p>Teachers reported learning more about collaboration thru:</p> <ul style="list-style-type: none"> • PD workshops • Planning with a teaching artist

During Year One, IB-TAP treatment schoolteachers and teacher artists prepared to co-plan and co-teach their first arts integrated units. Overall, IB-TAP teachers entered the program valuing collaboration. They had more experience co-planning with other teachers and less experience co-teaching. They believed that collaboration plays an important role in their professional growth and in their students' development. These values and skills served as a foundation for teachers' involvement in the IB-TAP program.

Relevant Findings

Teacher Interviews: In their first year, 18 out of 23 teachers were interviewed, representing 78% of IB-TAP teachers. Results indicated that they had experiences collaborating with other teachers, particularly to insure students learned from a balanced curriculum. Most teachers indicated that collaboration helped them to coordinate and balance curriculum. They served as resources for one another when problem-solving student issues. Additionally, teachers helped one another to decide *what students need to work on, what didn't go well, and what we need to change for next year.*

Some teachers indicated that they collaboratively created integrated units across subject areas. They did not report co-teaching these units, rather they taught the content relevant to their disciplines during their respective classes. These integrated units helped them to *balance their strengths as well as to see which area we might be best able to enrich the project or event, making sure to use our strengths to teach whatever aspect we have.* One teacher explained:

I actually did a project last year with them relating to math and angles, and then she (the art teacher) actually had the Mondrian side of things, and that is kind of what was the stimulus for it.

PD Exit Surveys: IB-TAP teachers and teaching artists attended three professional development sessions during Year One. Following the first professional development session, 50% of IB-TAP teachers indicated that communication and collaboration were somewhat a part of their work or a definite focus of their work (mean = 3.3 to 4.8 on a 6 pt. scale). On open-ended items IB-TAP teachers reported that they prepared for meetings with IB-TAP Teaching Artists. This indicated their intention to take an active and shared role in the curriculum development process rather than relying solely on the teaching artist to plan student learning experiences.

The open-ended section of the PD Exit Survey requested that teachers discuss what they hoped to apply in their classrooms and what questions the workshop session answered for them. Participants indicated that they learned more about collaboration and would impact their teaching. As an example, one respondent reflected: *this is an equal partnership and collaborating in front of students is an excellent modeling.*

IB TAP Pre Post Teacher Survey: This survey was administered once to treatment and control school teachers during Year One.

Independent sample *t* testing was accomplished to compare the mean scores of teachers in treatment and control schools. Eleven teachers in treatment schools and twenty-five teachers in control schools completed the survey. Significant differences were noted between these groups for the following items:

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- While an art specialist/teaching artist is in the classroom teaching, I more frequently contribute to classroom planning, co-teaching, documentation and assessment issues rather than only focusing on classroom management issues.
- At planning meetings, teachers and art specialist/teaching artist increasingly take time to explore a wide range of interests and ideas about teaching and learning, even those that at first may seem unfamiliar, uncomfortable, or even irrelevant.

One would expect these difference between comparison groups to occur, because only the teachers in treatment schools are involved in IB-Tap and working with teaching artists.

Year One Pre/Post Comparison Paired sample *t* test statistics were used to compare group means on PD Exit Surveys following the first and final PD sessions. Results indicated no significant differences. This interpretation was made with caution as only 7 to 9 participants out of the sample of 23 IB-TAP teachers completed questions on both PD exit surveys.

While not statistically significant, the following mean score differences indicated collaborative behaviors that teachers reported learning:

Item/N	September 2011 PD Mean	March 2011 PD Mean
When the teaching artist is in my classroom, we exchange ideas in front of the students/7	3.3	5.1
The teaching artist and I engage in arts and content research in order to further develop ideas for our collaborative MYP unit/7	3.3	4.1
IB-TAP teachers from other grade levels and I discuss the project to see how the curriculum can continue and increase student learning from year to year/9	3.3	4.2

On the open-ended section of the final PD Exit Survey respondents indicated they gained insights about collaborating with teaching artists. They reported developing *a better understanding of how best to work with a performance artist*, and that *planning with the teaching artist is important*. Another indicated that *I would take away how to collaborate efficiently with my artist and begin to know what questions and concepts need to be addressed*.

As a baseline, IB-TAP teachers entered the program valuing collaboration yet having more experiences co-planning than co-teaching. This was also evident in their relationships with IB-TAP teaching artists. While no significant differences in teachers'

collaborative practices were noted between the first and final PD sessions, they did report an increase in exchanging ideas with teaching artists during lessons and activities; collaborative planning; and debriefing with other IB-TAP teachers in their schools.

2. Year Two: Teachers increase their co-teaching and collaborative instruction

...when I found the opportunity to make sure that students were aware of what they needed to do in terms of content, I kind of jumped in there, and likewise, when they needed to do the artistic piece, they (the artist) seemed to take over, and it wasn't something that was, all right, now it's my turn.

8th Grade IB-TAP Teacher

This comment describes co-teaching and an organic relationship that fosters flexible and emergent co-teaching.

YEAR TWO
Teachers deepen their collaboration and there are significant differences in collaborative instruction from year 1 to Year 2
Collaboration between teachers and teaching artists was observed more frequently at the end of units as compared to when they began teaching their units.
Teachers report collaboration is a considerable focus that frequently happens.
All teachers interviewed (20) indicated that they were co-teaching with teaching artists. They described the various co-teaching strategies they implemented.
Teachers report they better understand what teaching artists bring to the curriculum.
Teachers report student collaboration is more prevalent.

In Year Two, co-teaching became a more frequent feature of IB-TAP teachers' instructional practices during IB-TAP units. The experiences that the teachers accrued during Year One helped them to better understand the role of IB-TAP teaching artists and an arts integrated curriculum. Teachers could describe strategies that they used to co-teach. They also noted that student collaboration became more prevalent during Year Two.

IB-TAP ET Observations: t-testing statistics were used to compare the observations of teachers' practices from the end of Year One to the beginning of Year Two. At the start of Year 2, there were no significant differences in observed collaborative strategies as compared to the end of Year One. The following data relates to how collaboration was observed at the beginning of Year 2:

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Used with little emphasis
Teachers and teaching artists co-teach
Instruction is collaborative
Students are adapting and modifying their ideas according to feedback

Did not use in the lesson
Teachers and Teaching Artists model collaboration techniques for students
Students critique and provide feedback for one another
Student documentation is used to facilitate learning in classrooms.
Students ask one another questions about what their work communicates.
Students are analyzing their own and each other's work.
Students are engaging with peers.
Students are requesting and offering feedback on their work.

Collaborative Teaching at the beginning of Year 2

However, paired-samples t test indicated significant changes in IB-TAP teachers' collaborative teaching from the beginning to the end of Year Two. Results indicated that the mean for collaborative instruction at the end of Year 2 ($M=1.75$, $SD=1.02$, $N=20$) was significantly greater than the mean for the beginning of Year 2 ($M=1.25$, $SD=.79$, $N=20$). During beginning classroom sessions, collaboration was not observed, and during the final sessions, collaboration between teachers and teaching artists was becoming a part of the classroom culture.

IB-TAP Teacher Interviews: IB-TAP teachers described co-teaching as a supportive relationship, with teachers *bouncing ideas off of one another* and insuring that students understood the lead teacher. Many teachers noted that co-teaching facilitates student group work that requires collaboration. For example, one teacher stated *if there's another adult in the classroom, that's a really good opportunity for the students to be able to work cooperatively and collaborate on a project or on an assignment, because it helps the groups to maintain some of that focus.*

Teachers discussed co-teaching strategies that evolved as they collaboratively taught with their fellow teaching artists. One teacher noted: *I'll jump in and help out or clarify things a bit more.* Another stated that when the other teacher introduced a concept, *I would walk around and help the students. I would jump in and provide examples, or if a student's not understanding, I would clarify in a different way. So that helped out a lot because the kids actually heard things two ways, at times.* Another teacher described a division of labor with each teacher working with a different small group of students.

IB-TAP teachers noted the impact of collaborative instruction on their students: *when they see that we are all working together, they see that we're a united front and that if I ask them to work harder in a subject that I don't teach that they should work harder in that subject as well.* Additionally, teachers reported intentionally modeling collaboration for their students. *If you don't model and show the kids what you expect, they're not going to get it, so modeling has a huge effect.* One teacher noted: *Kids take their cues*

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from you. When you're teaching your modeling shows that how flexible you are as the adult will help how flexible they are as a kid. He further described, I think kids will pick up from us that we view each other as equals. I think a sense of equality is really an important strategy for them to know, that all teachers and subject areas carry an equal importance to their education.

One teacher noted how collaboration is modeled for students:

if there was an end project that we were trying to get accomplished, then we would show how maybe I did one portion of it and the other teacher did another portion of it. That would be one possibility. Or to identify roles within a group of students. If this is your strength, if you are the artistic person in the group and there's some kind of artistic end, who can write the neatest, that'll be the person, so identifying roles that give them strength.

Another teacher believed that *collaboration between children is natural* and that the content area often lends itself to collaboration. *They like working together. They like sharing their ideas, sharing their thoughts and their feelings and explaining why. You know, in humanities it it's easy for them to collaborate all the time.*

Year One and Year Two Interview transcripts were compared and the following growth teacher growth trajectories were noted:

	BASELINE: YEAR ONE	YEAR TWO
Purpose of collaboration	<u>Planning Outside the Classroom</u> Planning occurs between teachers but outside the classroom and it is Content/Subject centered.	<u>Planning and Implementing both Outside and Inside the Classroom</u> Often, teachers and teaching artists would informally plan changes to the curriculum during instruction in order to better meet the needs of the students or strengthen disciplinary content. Teachers and teaching artists developed interdisciplinary curriculum, achieving a more fluid balance between arts and non-arts content.
Curriculum Development	<u>Collaboration is a Formal Event:</u> Teachers participated in structured grade level and subject area meetings	<u>Collaboration is both Formal and Informal. It is an Ongoing process.</u> Structured planning meetings occur between teachers and teaching artists and are more frequent. They also informally discuss and modify curriculum during implementation by reflecting on student response.
Teaching	<u>Some teachers co-teach:</u> Collaborative units are planned but taught separately across subject areas. Teachers do not take an active teaching role while teaching artists are teaching.	<u>All teachers reported co-teaching</u> Teachers and teaching artists are more flexible with their roles in the classroom.

As this chart indicates all teachers reported that their involvement in Year One activities such as IB-TAP workshops and developing units helped them better understand how teaching artists' work and contribute to classroom curriculum.

- The purpose for collaborating moved beyond planning to also encompass implementation

To further summarize during year one, teachers reported that they collaborated in order to plan interdisciplinary curriculum and to create a shared assignment that students would work on in each teacher's classroom. The subject areas were taught separately within each respective classroom.

In year two, IB-TAP teachers reported a better understanding of what teaching artists bring to the curriculum, and in year two built upon that:

It helped me to be able to think more like how I could use the teaching artists— So it was just much easier because I had more of an idea of what they were bringing to me; the ideas kind of pop up just from talking to each other; the teaching artist was so comfortable with it and was able to take that kind of fear away from me, and also from the students about this new technology pieces and artistic pieces that we're going to use...that was great.

- Collaboration became both a formal event and an informal, ongoing process Teachers and teaching artists dialogued more frequently about the curriculum and the students, strengthening their collaboration. *It reflected more of an ongoing this is what we've got, this is what the student response was, we need more time to go back and teach this, we need less time to bothered with this.*

- Co-teaching became more prevalent During Year Two, teachers describe that they and the teaching artists each taught within their own subject areas. However, most reported a more flexible division of responsibilities: *It was just something that kind of played off of each other very well.*

Teachers discussed a range of co-teaching strategies. These included teachers focusing on the academic subject area taught when the artist was not present; academics taught in the first part of class and arts taught during the remainder of class time; and academics and arts taught equally throughout the entire class session. For example, one teacher stated: *I taught most of the math stuff beforehand so they had the basis in finding the area, the volume, the perimeter, measuring things, that kind of stuff.*

- Student collaboration became more prevalent As students worked in groups to develop artifacts, teachers noted: *They really grew as collaborators. One teacher stated students became braver, getting in front of the kids and just speaking. That transcended into their involvement inside the classroom, asking questions, becoming more vocal, pushing on me.*

PD Exit Surveys: A paired-samples t test was conducted to evaluate whether teachers' collaborative practices had changed from the baseline year. The results indicated that the mean for collaboration during planning meetings during Year 2 (M=5.71, SD=. 49, n=7) was significantly greater than the mean for the Baseline Year (M=4.14, SD=1.34, N=7). Teachers reported that collaboration during planning is a major focus and always happens. They also reported that collaboration ranged from a definite focus of their work to a considerable focus that frequently happens.

Overall, teachers' collaborative skills progressed during Year 2 of the IB-TAP program. Their co planning with teaching artists grew in frequency and flexibility. They developed useful collaborative strategies that deepened the IB-TAP curriculum. Collaboration between teachers and teaching artists became an ongoing process, the arts integrated curriculum became increasingly interdisciplinary, and IB-TAP teachers accrued more experience and comfort levels with the creative processes being integrated into their classrooms.

3. Year 3: Teachers report their learning

...This year was just obviously better, but from a standpoint of how I felt, I felt great. There was no feelings of inadequacy or those feelings. It was just I took a seat from a learning perspective and I learned a lot about art this year. It was fun.

IB-TAP 7th Grade Teacher

This teacher notes that opportunities for personal learning are a positive outcome of a mature collaboration. Trusting his teaching artist and being familiar with the curriculum, this teacher can focus attention on his own professional learning.

YEAR THREE
Teachers developed instructional ideas from the collaborative modeling and sharing that occurred in pd sessions
Teachers increased research efforts of both arts and academic content as they collaboratively developed units.
Teachers described the methods they used to collaborate with teaching artists.
Teachers explicitly modeled collaborative behaviors to increase student collaboration.

With increasing familiarity of their IB-TAP units and stronger footing co-teaching with teaching artists, teachers shifted focus to their own learning. They delved into interdisciplinary content area research, enriching their curriculum units. They continued to explore co-teaching strategies. Finally, they sought to model collaboration for their students with more intention.

IB-TAP PD Exit Surveys: On Likert Scale items, teachers significantly increased their research efforts for both arts and academic content as they collaboratively developed units. While not statistically significant, participants also noted the following increases in their collaboration from Year I to Year 3.

- Teaching artists and I plan together (outside of classroom time) on the project: 27% increase, from a definite focus to a considerable focus that frequently happens.
- At planning meetings, ideas from both teaching artists and teachers are discussed and shared equally: 14% increase, from a definite focus to a considerable focus that frequently happens.

On the open-ended section of the IB-TAP PD Exit Survey, teachers reported they learned from the ideas that were shared during PD workshops. Specifically, they increased their understanding of collaboration, integrated instruction and instructional strategies.

COLLABORATION (Frequency: 8 comments)

Cross Curriculum, Reflection

All of the schools are creating wonderful projects. I would like to use some of the lesson ideas at my school.

Teachers reported subthemes related to cross-curricular collaboration. As teachers across schools shared their IB-TAP units, they reported developing ideas for integrating other subject areas into their lessons. They also noted that listening to other teachers instructional ideas prompted them to reflect on their own classrooms.

INTEGRATED INSTRUCTION (Frequency: 9 comments)

Curriculum Integration, Connecting to students' lives, Arts Integration

I enjoyed the art project and developed broad ideas about art integration; I felt like maybe I could even use the project myself as a teacher

Teachers reported that they increased their understandings of art integration and opportunities for integrating creative process into their curriculum. They also developed ideas for connecting learning activities to their students' lifeworlds.

INSTRUCTIONAL STRATEGIES (Frequency: 15 comments)

Instruction, Critique, Student-Centered Instruction

I learned methods to get students to do their own thinking

Teachers most frequently discussed IB-TAP instructional strategies they learned to implement. They described the opportunities they provided for students to critique their own and their peers' artifacts. They also reported that they were pushing curricular boundaries and raising expectations for their students to think critically and creatively.

IB-TAP Teacher Interviews: Nineteen out of 23 teachers were interviewed during Year 3.

Eighteen of the 19 teachers interviews commented about their collaborations with the teaching artist, how they modeled these collaborations for students, and the student-to-student collaborations.

Teachers continued to describe their relationships with their teaching artists: *she is a partner in the classroom. She'll say something, I'll pick up on it; we're the left and right hands.*

Teachers described how they and their teaching artists intentionally modeled behaviors they wanted to encourage among their students: *I think that having that in the same room is very beneficial to the students because they see, you know. And I will...she'll make a statement and I will comment on how, oh, I didn't know that, so they see that I'm learning from what she's saying, too. So I think that gives them a respect of the arts and that gives them a respect of adults trying to get the same thing from the students.*

During Year 3 professional development workshops, IB-TAP teachers became active students. They reflected on and developed greater confidence in their students. They prompting encouraged their students to take more control of their own creations. Through their insights, teachers generated possibilities for developing additional arts integrated units. They attributed their professional growth to the models that IB-TAP program staff provided.

B: Variable 2: Arts Integration

(Relates to research Question 2: How does arts integration, combined with the IB Middle Years Programme, impact the development of high-quality arts integrated curriculum?)

In IB-TAP, teachers and teaching artists together addressed academic and artistic questions and challenges. Building on their ideas, they planned arts-integrated curriculum units that drew connections between arts and non-arts subject matter such as math, science, technology, humanities, English language arts, Spanish, and French. The artist and teacher then co-taught and with their students, co-experimented throughout their partnership. Each IB-TAP teacher created 2 units every year with 2 teaching artists. In general, teacher and teaching artist teams remained intact over the three years.

The Chart below summarizes the teachers' effective and creative teaching practices over the projects' three years.

YEAR ONE	YEAR TWO	YEAR THREE
<p>Arts integrated developmental workbooks were not a part of IB-TAP teachers' instruction.</p> <p>Reflection on teaching practice is a considerable or major focus of IB-TAP teachers' work.</p> <p>Pre/post assessments <i>became</i> a feature of IB-TAP teachers' work.</p> <p>Teachers reported a deeper understanding of interdisciplinary curriculum.</p> <p>Teachers recognized the importance of documentation.</p> <p>Differences were noted between treatment and control teachers:</p> <ul style="list-style-type: none"> How arts and academic teaching reinforce each other. Integrated units help treatment teachers learn more about their subject area. <p>Analysis of teacher artifacts</p>	<p>Teachers were not using student artifacts to inform curricular decisions or provide evidence of student learning. However, in PD Exit Surveys, teachers self reported that this was a definite focus of their work.</p> <p>Analysis of Teacher AIDW's indicated that these documents provided a narrative of the unfolding curriculum.</p> <p>In PD exit surveys, changes were noted year one to two with respect to critique:</p> <ul style="list-style-type: none"> Critique had become a definite focus of the teachers' work. <p>Through ET Observations, increase in use of critique was noted:</p> <ul style="list-style-type: none"> Critique and feedback had significantly increased from beginning to end observations. <p>Increase in use of student documentation was noted on end observations.</p> <p>Significant changes were noted</p>	<p>Teachers reported gains in the following areas:</p> <ul style="list-style-type: none"> Their understandings of and beliefs in the advantages of an arts integrated curriculum, An increase in their use of effective teaching practices, including: <ul style="list-style-type: none"> Various student grouping techniques Incorporating opportunities for student reflection in lessons. <p>During interviews and written reflections, teachers provided examples of student growth, including:</p> <ul style="list-style-type: none"> Increased autonomy when working on IB-TAP artifacts Increased engagement in learning activities.

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indicated their strength in creating IB-TAP Unit Inquiry questions.	with respect to Year one to Year Two Teacher AIDW's for the following constructs: Sense, Create, Document and Reflect. For Year 2, Range is between 2.6 (Plan) to 3.3 (Document)	
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Participating teachers were not implementing student portfolios such as the IB Developmental Workbook system prior to the IB-TAP program. They were proficient developing inquiry questions to anchor their curriculum units. They considered reflection to be a part of their instructional practices. Through IB-TAP's teacher and student portfolio processes during Year 2, documenting their curriculum became a part of their practice. At this point in time, their purpose for documentation was to provide a multimedia narrative of the curriculum. They were not systematically analyzing the artifacts they collected to refine their curriculum or provide evidence of student learning. During instruction, teachers offered increased opportunities for their students to critique their own work and the work of their peers. In Year 3, teachers grew in their understandings of what it means to approach subject matter creatively. Their strength continued to be developing rich inquiries to anchor curriculum. Teachers described a range of *creative* teaching practices they were developing including: documentation; reflection; and various student-grouping strategies. Teachers also described what they were learning from Teaching Artists and their students. For example, several described changing their expectations of some of their students as they reviewed their students' AIDW portfolios.

1. Year One: Establishing the Baseline of IB-TAP teachers Arts Integration Skills.

From implementing the IB-TAP curriculum I learned that art and history are incredibly similar in the way that they both tell stories. It was amazing to come to the natural realization that art is a wonderful, creative, engaging, and powerful outlet to learn about history and to tell a story of a people and the times they lived in.

7th Grade IB-TAP Teacher

This teacher cogently describes that art is more than a diversion: rather it is a mediator for learning about history.

YEAR ONE
Arts integrated developmental workbooks were not a part of IB-TAP teachers' instruction.
Teachers reported that reflection on their teaching practices was a considerable or major focus of their work.
Pre/post assessments <i>became</i> a feature of IB-TAP teachers' work.
Teachers reported a deeper understanding of interdisciplinary curriculum.

Teachers recognized the importance of documentation.

Differences were noted between treatment and control teachers:

- How arts and academic teaching reinforce each other.
- Integrated units help treatment teachers learn more about their subject area.

Analysis of teacher artifacts indicated their strength in creating IB-TAP Unit Inquiry questions.

During Year One, IB-TAP teachers were inducted into the world of arts integration. Teachers were already familiar with developing inquiry questions to anchor their curriculum and began to integrate arts processes into their academic curriculum. At the beginning of year one, the use of arts integrated portfolios was not a feature of their teaching. At the conclusion of Year 1 and compared with the control group, IB-TAP teachers reported learning how arts can reinforce academic concepts. Teachers in treatment school classrooms also reported that integrated units helped them to learn more about their own subject areas. The teachers reported an increase their use of pre and post assessments of student learning during arts integrated activities. They also reporting better understanding interdisciplinary curriculum and were interested in developing more integrated curriculum.

Relevant Findings:

IB-TAP PD Exit Surveys: 15/23 teachers attended the September PD and completed the exit survey. The key and results of that survey appear below:

(Key:

1 = not a focus, never happens

2 = a slight focus, rarely happens

3 = somewhat a focus

4 = a definite focus in my work

5 = a considerable focus, frequently happens

6 = a major focus; always happens)

IB-TAP Creative Cycle Indicator: Inquiry and Create		
Operational Definition (plus Survey Item Number)	N	Mean
Big Ideas or Essential Questions used in curriculum development (8)	14	4.6429
Inquiry questions to explore teaching and student learning (9)	14	4.6429
Teacher insures students understand IB-TAP curriculum academic content (10)	12	3.1667
Teacher attended professional development focusing on curriculum integration (11)	13	4.7692

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Teacher Developed an arts integrated multi-disciplinary project with other IB teachers. (12)	13	3.4615
After any project is finished, teacher uses Teacher AI-DW to discover what was missing or successful in the curriculum. (21)	12	2.7500

- The following Arts Integration processes were a definite focus of their work:
 - Use of essential questions and inquiry questions for curriculum development and teacher/student learning (items 8 and 9)
 - Attending professional development related to curriculum integration (item 11)
- Arts Integration items that were Somewhat a Focus of IB-TAP Teachers' work included:
 - Teachers' supporting students' understanding of an IB-TAP unit's academic content (item 10)
 - Teachers developed an arts integrated unit with other IB teachers (item 12)
- Arts Integration aspects that were a Slight Focus of their work included:
 - Teachers use of documentation to analyze and refine curriculum (Item 21)

IB-TAP Pre/Post Teacher Survey:

Independent sample *t* testing was accomplished to compare the score means of IB-TAP teachers in treatment and control schools. Thirteen teachers in treatment schools and twenty-five teachers in control schools completed the survey. Significant differences were noted between these groups for the following items:

- I have a thorough plan of how the arts and academic teaching and learning goals will reinforce each other, as well as how learning outcomes can be documented and assessed as the plan is implemented.

Teachers in the treatment group indicated this is often true, while those in the control group indicated that this is decreasingly true of them.

- By teaching integrated units, I am increasingly learning more about my specific MYP subject area criteria that I teach.

While both treatment and control teachers indicated that this was often true of them, the strength of the differences between the group means was significant, indicating that this is more reflective of the treatment group. IB-TAP (Treatment) Teachers PD exit survey responses, reported above support this conclusion, as well. Teaching integrated units helped teachers to better understand their content area.

- I present the integrated curriculum to IB teachers who are not from my school

Teachers in the treatment group indicated that this activity is not true of them, while control group teachers indicated that it is decreasingly true of them. As it stands, neither group reports sharing curriculum across schools.

- I have developed some type of public material (flyer, handout, etc.) to share this arts integrated work

As above, while differences exist between the groups mean scores, neither group reported creating materials to share their work.

This comparison of treatment and control teacher groups indicated that at the end of Year One, the IB-TAP program was making inroads into participating teachers' knowledge about their own disciplinary subject as well the potential for arts integration to enhance their content area. No significant differences concerning documentation and dissemination were found between treatment and control groups.

Artifact Analysis: Middle Year Planners (MYP): Teachers' Middle Year Unit Plans were analyzed for the Year One evaluation. IB teachers develop curriculum around broad conceptual ideas rather than discrete facts. Teachers describe the unit academic goals, learning activities and methods of student assessment, insuring alignment between these three aspects of curriculum. Following implementation, IB teachers are to reflect on their units and evaluate the curriculum. Through reflection, it is hoped that teachers are in a better position to refine the planned curriculum and generate new instructional possibilities to potentially strengthen student learning.

Inquiry: Teachers and teaching artists frame inquiry questions to anchor instruction

The AIDW Artifact Analysis Tool was used to analyze IB-TAP teachers' Middle Year Unit Plans. A 4-point rubric and corresponding scoring guide measured these teachers' documents. Please see Appendix F for the full scoring guide. Descriptions of the levels as they relate to the Inquiry construct, are described below.

AIDW Artifact Analysis Scoring Guide: Inquiry

1 = The artifact is irrelevant, generic or does not exemplify the quality described.

2 = The artifact is one-dimensional. It addresses the description but in a superficial manner.

Description of Levels 1 and 2: Quality of the inquiry question framing the unit does not reflect a broad, big idea that supports the potential for critical thought and original student research. The inquiry is literal or concrete. The inquiry does not facilitate connections between students' worlds and prior experiences. The inquiry does not lead to multiple perspectives or solutions. Transdisciplinary learning, particularly arts and

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non-arts, is not specifically stated nor would it be easy to facilitate this through the stated inquiry. There are not explicit connections between the inquiry and the learning activities.

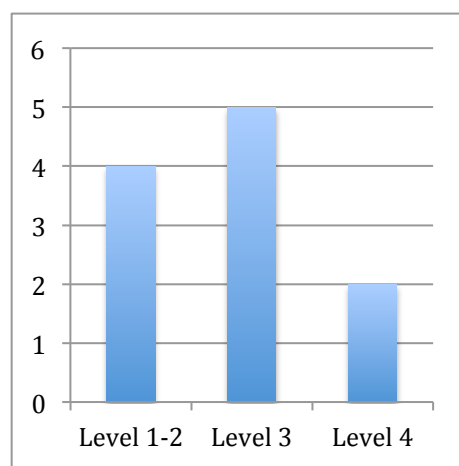
3 = The artifact fully encompasses the ideas expressed in the description.

Description: The quality of the inquiry question framing the unit reflects a broad, big idea that supports the potential for critical thought. The inquiry is sufficiently abstract to facilitate original student research. The unit inquiry and activities provide transdisciplinary learning opportunities. Coherence between the inquiry question and unit activities are evident, even if not explicitly mentioned.

4 = artifact represents a level of sophistication and a complex articulation of the quality.

Description: The quality of the inquiry states a broad, big idea. The inquiry is sufficiently abstract to facilitate critical thought and original student research. Transdisciplinary learning is explicitly planned for. Original student research drives the learning activities. There is explicit mention of the connection between the inquiry and the learning activities.

The following chart displays the results of the unit inquiry question analysis:



Of the 11 teachers who submitted MYP's, two teachers' unit inquiries were reflective of a Level 4. For example one unit began with the inquiry: *What role should government play in our lives? Students using digital cameras will document how society as a whole has been affected by the great recession. Students may document their own community or conduct interviews with family or friends in order to share how their family has been negatively affected by the slow down in our economy. Using their reflective journals students will also sketch out their community and people who have been affected. Students will document how the nation has been affected through research, and compare/contrast today's current crises with the Great depression. All photos/sketches and reflections/interviews will be stored in their journals.* During this curriculum unit, students engaged in original research, using both historical and artistic processes of oral history and documentation to develop an understanding of how government plays an important role in their lives. The connection between learning activities and the inquiry question is explicitly stated.

Five teachers' framed unit inquiries at a Level 3. For example, one unit inquiry posed the idea: *How does organization create meaning? Students will research the work of mobile artists such as Calder and then create a hanging mobile that represents students understanding of the three forms of self in the French language. Then students will fill a space in the school with their mobiles as an exhibit and will include a museum tag that describes the work.* In this unit, both arts and non-arts content are represented and the student research supports the planning and creation of their artwork.

In another unit, students were asked to explore: *How does my heritage influence my evolving self? Through the use of a linoleum block printing method, students will create their own coat of arms that represents their heritage. In order to create this work of art, students will complete a family survey and learn the techniques of linoleum block printing.* This unit encouraged students to engage in original research that is reflective of their own inquiries. Students used techniques such as oral history (interviews) and research (symbols) to support their artistic processes (block printing).

Four teachers inquiry questions reflected Levels 1 to 2. The quality of their inquiry questions did not reflect broad concepts and ideas that would support the potential for critical thought and original student research. Their inquiries tended to be literal or concrete. The inquiries did not facilitate connections between students' worlds and their prior experiences. Transdisciplinary learning, particularly arts and non-arts, was not specifically stated nor would it be easy to facilitate through the stated inquiry. There were no explicit connections between the inquiry and the learning activities. Rather than framing inquiries, some teachers listed topic areas to be addressed. One curricular topic was the following: *The 1932 Presidential election of Franklin D. Roosevelt-A new direction and policy for the American government.* This curricular topic/inquiry reflected a fact-based approach, in which breadth of coverage is valued over depth of understanding. In another unit, students explored: *How far can I go in my space and still not invade others? In this unit, student will use mathematical concepts and skills to solve problems in both familiar and unfamiliar situations, including those in real life contexts.* This inquiry question does not specify learning experiences or project artifacts. Qualities such as transdisciplinary learning, multiple solutions, critical thought or student research are not discussed or described.

Inquiry is a part of the fabric of both the Middle Years Programme as well as CAPE's Arts Integration Methodology. The IB-TAP curriculum unit inquiries provided evidence that most IB-TAP teachers understood how to shape curriculum by framing inquiry questions.

Sense: Varieties of Research Processes in Middle Year Planners.

In the IB-TAP Creative Cycle, the Sense construct refers to how research helps students generate ideas for their artifacts and art products. The one quality that was used to evaluate this construct within the MYPs was whether or not the teacher stated or

described the research process that the students use to create unit artifacts. Of the 16 MYP's, 14 teachers described how students would engage in research. The following chart identifies the various research processes used in IB-TAP units:

Plans for Student Research Processes in IB-TAP Units
Note taking about a novel in journals to be used for writing character sketches and creating personal art projects.
Glossaries and dictionaries for writing a book and translating a book
Internet research, newspapers and magazine ads for creating videos, three dimensional structures and writing essays.
Reading/listening to stories from various cultures and comparing how they create to units covered.
Using Primary Source documents, images and interviews, keeping a reflective journal about impact of the Great Depression and to design/improve a technology invention.
Noting trends and group think through Instant Polling.

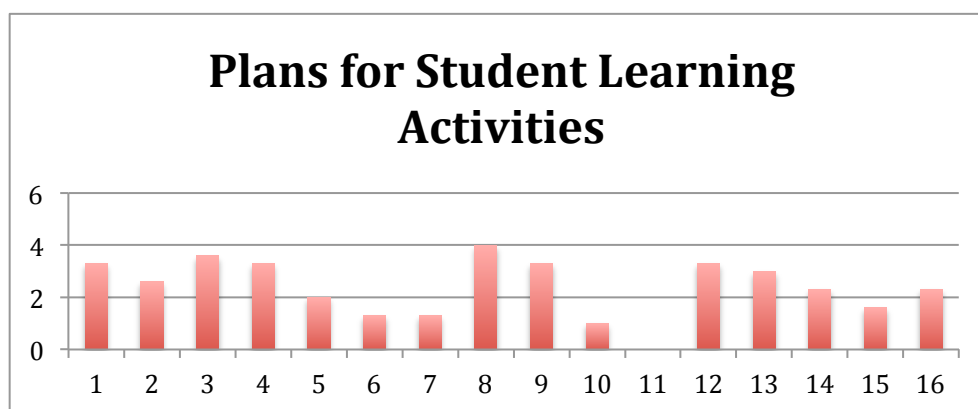
Research was an integral component of the IB-TAP units. Student research was designed to be purposeful. Many projects incorporated traditional internet research. Some units required student research as preparation for making judgments and comparisons, prepare for interviews, and create products such as public service announcements and sculptural mobiles.

Plan: The specification of learning activities

The following characteristics were used to evaluate how teachers prepared student-learning activities:

- The teachers' plans for student activities, plans and strategies are stated.
- Possibilities for or examples of how students will engage in arts integration are incorporated into the MYP.
- The teacher plans for student collaboration

Teachers' plans for learning activities were analyzed using the AIDW Rubric and Scoring Guide. The chart below provides the results:



Of the 16 units evaluated, five were reflective of Levels 0-1, four were reflective of Level 2, six were reflective of Level 3, and one was reflective of Level 4.

In plans reflective of a Level 1, Student activities were not described or were too generic to specify *how* students learn content. An example statement is: *Students will learn skills by using the text and will then apply them to the unit question provided. Students will learn from discussing answers collectively as we work through the textbook and supplemental materials. These new ideas will generate improvements in their work. Students will transfer new ideas and inspiration from enriching discussions in class to their written output.* This example is generic and does not describe how students will apply the unit question, what they will be writing, and what will be emphasized in order to generate improvements in student work. There is no description about the types of group activities used for class discussion. No mention is made of arts processes or products created during this unit.

For plans reflective of a Level 2, student activities are generally or superficially described. Possibilities for arts integration might be stated, but *no* specifics are provided. Little or no information is provided concerning approaches students may use to collaborate. An example of a Level 2 activities description follows: *Students will read about the events prior to WWI that led to the catalyst of WWI starting. They will also be given notes from the teacher. Students will research the topic as well as take notes from the teacher's discussion. Students will show that they have understood the topic by writing an essay to answer the question. This unit could possibly be integrated with Art. Students can express their ideas through art and also view art pictures from WWI.* Here, the basic learning activities are noted but generic. Many logistics are not described. How will students engage in research? Will they first brainstorm fruitful avenues to explore? Will primary and secondary sources be incorporated? No discussion about collaboration or group processes is offered. Art is mentioned, but only superficially described.

In Level 3 learning plans, student activities are described in sufficient detail. Arts processes or art pieces that students will create are explicitly identified. Collaborative processes or group activities specified. For example: *Students using digital cameras will document how society as a whole has been effected by the Great Recession. Students may document their own community or conduct interviews with family or friends. Using reflective journals students will also sketch out their community and people who have been affected. Students will also compare and contrast today's current crises with the Great Depression. In addition, all photos/sketches along with reflections/interviews will be stored in their journals.* In this plan, the activities are well described and collaboration is a part of the fabric of the unit, through students' interactions with the community and their families. Arts processes are incorporated for purposes of documentation and reflection.

Level 4 plans provide elegant and explicit detail. The descriptions represent a level of sophistication and a complex articulation of arts integration. The unit holistically incorporates arts processes and products, and affords a need for students to engage with academic content. Collaboration and group processes are inherently important to the success of the unit and the products created. For example: *Students will reflect on the importance of carrying on the oral tradition. Students will compare and contrast the written story with an oral story. In small groups of 3-4, students will create and put to music an original story of the oral tradition genre and will tell the story to his/her classmates in a recorded performance.* This project seamlessly connected academics and the arts. The integrity of each discipline is apparent. Student collaboration and grouping reflects a “real world” application: planning and staging a performance.

Artifact Analysis: Teacher Arts-Integrated Developmental Workbooks (T-AIDW)
IB-TAP teachers’ digital documentation was analyzed. The table below compares the mean scores of teacher’s Middle Year Planners with the mean scores of the Teacher AIDW’s. Please refer to Appendix F for the AIDW Rubric and Scoring Guide.

Table 1: IB-TAP Curriculum Units

	Inquiry	Sense	Plan	Create	Document	Evaluate	Reflect
<u>MYP</u>	3.0	2.9	2.5				
<u>AIDW</u>	3.1	1.5	1.9	1.8	2.1	1.6	1.2

These results indicated that the inquiry questions used to plan units were sufficiently robust to support the actual implementation of the unit. The inquiry questions that were incorporated into the actual units contained broad, big ideas. They were sufficiently abstract to facilitate critical thought and original student research. Transdisciplinary learning was evident. Teachers provided examples of how unit inquiries facilitated arts integration and student learning. For example, one teacher/teaching artist team noted:

***Why did you both choose to focus on this inquiry?
What will it help you to learn? What need is it
addressing?***

Pat and I chose this inquiry because the concepts of focus and isolation naturally linked our two subjects. The title of the unit, 'Focus on Your Frame' refers to both the body frame and the camera frame. Isolating exercises to a particular muscle group should help to students to gain a better understanding of the structure and function of a specific muscle group, as well as to analyze an exercise that effectively focuses on that muscle group in the areas of strength, flexibility and/or endurance. Discussing what to isolate within the camera frame will hopefully teach the students how to focus their viewers' attention on what is important within the fitness video narrative. Focus on a specific muscle group from a scientific vantage point allows the student to be more effective in presenting that exercise as part of the exercise video or exercise board.

Less relationship between Middle Year Planners and AIDW's was evident with respect to other constructs of the IB-TAP Creative Cycle. Teachers were more specific in their plans for student research (in MYP's) than documenting how students actually engaged in research (AIDW). They also provided less documentation concerning students' planning processes; difficulties that students encountered; and how students adapted or modified their ideas.

Summary: Results of the AIDW analysis indicated that teachers used student artifacts to provide a narrative of the unfolding curriculum. However, during the first year of implementation, teachers were not *using* student artifacts to record and reflect on what was learned. Neither did they attempt to use artifacts to inform their decisions concerning future curriculum adaptations.

Year One Pre/Post Comparison

Closed Ended PD Exit Surveys: 17/23 teachers attended the March PD. The PD Exit Surveys were analyzed and compared to the first September PD Exit survey using paired sample *t* test statistics. Results indicated a significant difference in scores for the following items:

When the teaching artist is not there, I make sure my students understand that parts of my academic content curriculum also relate to IB-TAP.

In September, teachers noted that this was a slight focus that rarely happens. In March, they indicated that this is a considerable focus that frequently happens. This indicates that teachers took ownership of the IB-TAP curriculum, committing time to assure their students understood the academic aspects of the unit.

Critique sessions or student conferences, where the students explain and receive feedback on their work, take place during the school year.

Participants reported in September that this was a definite focus of their work; while during this reporting period they noted that it was somewhat a focus of their work.

I make pre and post assessments to see what my students are learning through an art-integrated activity

September results indicated that this was a slight focus of teacher's work that rarely occurred, whereas in March they indicated it is a considerable focus that frequently happens.

The open-ended section of the survey provided teachers descriptions of their learning and what they planned to apply in their classrooms. Two main areas of teacher growth were evident:

- Understanding and planning interdisciplinary curriculum

For example, one teacher stated now knowing *how to apply artistic concepts and mathematical*

concepts **together** to enhance student understanding.

- The importance of documentation.

Many teachers commented that they understood how to document the curriculum and had developed strategies for doing so. One example teacher comment was: *documentation provides a way to better understand the process that goes into the finished product.*

Through reflections such as the above teachers reported that they were learning how to implement interdisciplinary curriculum and the importance of documentation. They noted that integrating and documenting the curriculum was facilitating their assessment of student learning.

Year One Summary

Participating teachers had prior knowledge and experiences creating and implementing inquiry-based curriculum. The analysis of IB-TAP teachers' MYP curriculum plans and Teacher AIDW's provided evidence that at the start of Year One, teachers understood how inquiries shape curriculum. This makes sense, as inquiry is a part of the fabric of both the Middle Years Programme and CAPE's Arts Integration Methodology. Therefore teachers and teaching artists entered the program familiar with inquiry-based curriculum. Most units provided students with ample opportunity to engage in research with a purpose: to create a product.

Teachers were less experienced with other aspects of arts integration, and there was wide variation in how teachers planned for arts process and arts integration in their units. Some teachers did not mention how artistic processes or products were to be incorporated into the curriculum. Others reflected a fully integrated project with artistic and academic processes fully described. There was variation concerning how specifically teachers planned unit learning activities, how artistic processes and products were planned for, and how collaboration could foster student engagement.

At the end of the first year, teachers increased their investment in IB-TAP. They insured that students understood the academic aspects of the IB-TAP units. They also reported better understanding interdisciplinary curriculum and the use of documentation.

2. Year 2: Teachers become experienced with creativity and arts integration.

I felt like we were kind of just told to just do this unit with this artist, go. And we were like, what? Wait, I don't even want to do it. But then after we did it, it was like, okay, now that I see what's happening there, we can kind of plan it out. They're (the artists) really talented, and I give them credit. I would not have done what M did, no way. I wouldn't have come in there with paintbrushes, grid paper, watercolors, all these colored pencils she bought, all the compasses she bought to teach them a math concept. I would never have done it. But since she did it, I'm like, okay, well, we could maybe sort of – like I'm not going to be able to do the whole thing – but I can do some of that. So I think

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it's a really great concept, but the comfort level definitely was not there last year, for me, at least.

6th Grade teacher, Year 3

Most teachers did not self-select to participate in IB-TAP; rather IB Coordinators and building principals appointed them. Many teachers, like the one above, found this problematic. However, teachers' understandings of arts integration and the work of teaching artists developed through their first year. As a result, they became much more receptive to adopting the creative teaching practices modeled by their teaching artists.

YEAR TWO
Teachers were not using student artifacts to inform curricular decisions or provide evidence of student learning. However, in PD Exit Surveys, teachers self reported that this was a definite focus o their work.
Analysis of Teacher AIDW's indicated that these documents provided a narrative of the unfolding curriculum.
In PD exit surveys, changes were noted year one to two with respect to critique: <ul style="list-style-type: none"> • Critique had become a definite focus of the teachers' work. Through ET Observations, increase in use of critique was noted: <ul style="list-style-type: none"> • Critique and feedback had significantly increased from beginning to end observations.
Increase in use of student documentation was noted on end observations.
Significant changes were noted with respect to Year one to Year Two Teacher AIDW's for the following constructs: Sense, Create, Document and Reflect. For Year 2, Range is between 2.6 (Plan) to 3.3 (Document)

Having established collaborative relationships with their teaching artists, IB-TAP teachers more confidently delved into their arts integrated units. Creative processes, such as student self and peer critique, were becoming a feature of classroom lessons. Teachers took more ownership towards documenting their curriculum, and described their planning process as well as the unfolding of curriculum lessons. At this point in the program, they were not using their collected student artifacts to make decisions about their curriculum or to better understand their students' learning.

IB-TAP PD Exit Surveys: 83 % of teachers in treatment schools participated in the final IB-TAP professional development session and completed the survey. Their results were compared to the first Year One IB-TAP PD Exit Survey results. The means for each category of creative process were calculated, and then compared from Year One to Year Two. Results are depicted in Table 1 below.

IB-TAP Creative Process	Percent Increase Year One to Year Two
Inquiry and Interdisciplinary Learning	44%
Documentation and evidence of student learning	32%
Evaluation and Dissemination	35%

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Teachers reported a greater understanding of arts integrated learning as well as how to document the curriculum. Specifically, they reported an increase in their understandings of creative practices such as critique. Results of *t* testing indicated that the mean for critique sessions or student conferences during Year 2 ($M=4.1$, $SD=1.4$) was greater than the mean for the Baseline year ($M=2.71$, $SD=1.1$).

In sharing their IB-TAP units in professional development settings as well as at each of their respective schools, the participating teachers were involved in disseminating their efforts, making it possible to share their units with other teachers both in and outside of the IB-TAP program.

While not statistically significant, teachers indicated an increase in the following practices related to the IB-TAP arts integrated curriculum:

Creative Process	Baseline Year	Year Two
When the teaching artist is not there, I make sure my students understand that parts of my academic content curriculum also relate to IB-TAP.	Slight Focus that rarely happens	Considerable Focus that frequently happens
After any project is finished, I look back at the student work in the AI-DW to discover what was missing or successful in the curriculum.	Slight Focus that rarely happens	Definite Focus
After any project is finished, I look back at my work in the teacher AI-DW to discover what was missing or successful in the curriculum.	Slight Focus that rarely happens	Definite Focus
I utilize multimedia documentation to capture student learning in my classroom	Somewhat a Focus	Definite Focus

During Year Two and through their own accounts, teachers were taking greater ownership of the IB-TAP curriculum. They were creating bridges between the arts aspects of the curriculum and their student learning objectives. They also reported a more active use of documentation as a tool to reflect on the curriculum and student learning.

IB-TAP ET Observations: A paired-samples *t* test was conducted to evaluate whether teachers' use of creative processes in the IB-TAP units had changed from the beginning to the end of Year 2. The results indicated that the mean for student use of critique and feedback with one another during the end of the unit ($M=1.70$, $SD=1.03$) was significantly greater than the mean for the beginning of the unit ($M=1.35$, $SD=.75$). While critique was being implemented with little emphasis at that point, it was nonetheless present in classroom activities during Year 2.

Documentation was becoming a feature used in classrooms as well. Specifically, as teachers were in their second year implementing the Student AIDW portfolios, changes in the use of student documentation were also observed ($M=1.3$, $SD=.73$ from $M=.95$, $SD=.22$). At this point, portfolio documentation was often incorporated into the end of

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class periods. Therefore, the students' efforts to record their creative processes and reflect on their products were constrained by time.

Other creative processes were observed, although the changes were not statistically significant. The chart below depicts increases in several arts integrated processes:

Creative Process	Percent Increase Year One to Year Two
Students support the specific choices they have made about their work and any insights learned from those choices.	74%
Classroom teacher takes up newly learned arts skills and vocabulary	39%
Arts and non-arts specific concepts are used in an interdependent way by teachers and/or students.	37%
Students continually appraise their own work on an ongoing basis.	37%

Classroom teachers were using arts vocabulary, making it a part of the classroom discourse. They were also supporting student voice and choice, providing opportunities for students to critique and reflect on their artistic creations.

Artifact Analysis: Teacher Arts-Integrated Developmental Workbooks (T-AIDW)

The chart below displays the Year 1 and Year 2 teachers' AIDW rubric scores. Little change was noted in year 2. Teachers continued to show strengths discussing the unit inquiry questions in their AIDW portfolios.

Although teachers reported taking more ownership in implementing their IB-TAP units as noted in their PD Exit Surveys, and evidence of creative processes such as critique

	Inquiry	Sense	Plan	Create	Document	Evaluate	Reflect
<u>AIDW Year 1</u>	3.1	1.5	1.9	1.8	2.1	1.6	1.2
<u>AIDW Year 2</u>	3.3	1.4	2.0	1.8	2.1	1.4	1.1

were documented in classroom observations, the teachers appeared to be implementing their AIDW portfolios in much the same way as in Year 1. They did not appear to be using their portfolios to evaluate and modify their curriculum or to reflect on their own and their students' learning.

3. Year 3: Teachers develop arts integrated practices

This is not just for fun and games. There is a connection with what we're doing in math class, why we're doing improv acting, why we're doing these silly games. There is meaning behind everything. What sometimes can be perceived as fun and games actually is meaningful and educational.

7th grade teacher Year 3

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This teacher contends there is a connection between math and the arts. He understands that arts integration provides avenues for meaningful and creative instruction.

YEAR THREE
<p>Teachers reported gains in the following areas:</p> <ul style="list-style-type: none"> • Their understandings of and beliefs in the advantages of an arts integrated curriculum, • An increase in their use of effective teaching practices, including: <ul style="list-style-type: none"> ○ Various student grouping techniques ○ Incorporating opportunities for student reflection in lessons. <p>During interviews and written reflections, teachers provided examples of student growth, including:</p> <ul style="list-style-type: none"> • Increased autonomy when working on IB-TAP artifacts • Increased engagement in learning activities.

Teachers' artifacts and their comments during interviews provided examples of how they grew during their final year in IB-TAP. Their reflections were replete with insights about arts integrated lessons and their documentation provided rich examples of how the curriculum was implemented. They were providing more opportunities for students to document their work. Through these artifacts, teachers were learning much about their students. For example, during interviews, several teachers described their expectations of selected students had changed based upon the students' contributions in the IB-TAP units and their student portfolios.

Artifact Analysis: Teacher AIDW Portfolios: The chart below provides a 3 year summary of teachers' AIDW Rubric scores. Results indicated changes in every construct with the exception of Inquiry, which was a consistent strength over the three years.

	Inquiry	Sense	Plan	Create	Document	Evaluate	Reflect
<u>AIDW</u> <u>Year 1</u>	3.1	1.5	1.9	1.8	2.1	1.6	1.2
<u>AIDW</u> <u>Year 2</u>	3.3	1.4	2.0	1.8	2.1	1.4	1.1
<u>AIDW</u> <u>Year 3</u>	3.1	2.7	2.6	3.1	3.3	2.8	2.8

t testing was accomplished to note whether these changes in teacher performance were significant. Results indicated significant changes for the following construct areas.

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Construct	Percentage Change: Year 2 to Year 3
Sense	93%
Create	72%
Document	57%
Reflect	154%

Significant Changes in Teachers' AIDW Portfolios

These results indicated that IB-TAP program positively impacted participants' abilities to demonstrate their students' growth through artifact selection and multimedia documentation. In particular, their reflections indicated they were developing new insights about their students and modifying their curriculum accordingly. For example, one 6th grade teacher commented in her AIDW Portfolio: *Ironically, the groups with students who were considered above-average, had as many arguments as the groups with below-average reading scores. High achievers had huge egos and often did not want to compromise. This problem was resolved with several mini-lessons on problem-solving techniques in addition to instructor acting as mediator.* Another stated: *One of the adjustments we made occurred because it was determined that many students needed more help grasping the vocabulary for the unit. After direct instruction in the classroom, the students were prompted to include words and definitions in their performances to reinforce the classroom learning.*

Teachers became much more specific as they discussed their plans, how students were to engage in activities, and what future modifications might be helpful. For example, one teacher noted: *For the most part, throughout the project, the plan was maintained. The original focus was on integrating tessellation with scale and measurement. Students began with a simple tessellation, not related to the final project, to teach them the process. Then they began to create their model according to the scale. Difficulties arose when they had to transfer the model to the actual materials. When creating the model, students didn't understand the challenges they would face when translating their model to the actual materials, and therefore, created quite artistic renditions that were a bit out of their scope, despite the continuing direction given by the artist and teacher. When the translation process began and the students realized how time-consuming their design would be, they created a more simplified version with the guidance of the artist and teacher which caused the time line to be a bit elongated. Presenting a sample of a finished product at this early stage might help the students visualize the complexity of the translation.* Detailed descriptions of unit plans are important as they can potentially sustain IB-TAP teachers' implementation of arts integrated units beyond the grant period, and be disseminated to others as well.

IB-TAP Teacher Interviews: During the final year of the project, teachers were requested to bring in their own and their students' artifacts to discuss with researchers. The main themes related to arts integration that emerged from the interview data are depicted

below. These included continuation after IB-TAP Ends, Creative Curriculum, Dissemination, Effective Teaching Practices, Teacher Learning, and Student Learning. The number of teachers and number of comments appear in parenthesis following the themes labels.

- Continuation after IB-TAP Ends (8, 8): Several teachers mentioned that they felt better able to carry out similar projects based on their experiences with the IB-TAP project.
- Curriculum (19, 223): All 19 teachers commented on various aspects of curriculum including arts-integration, connections to the discipline content, meaningful curriculum for students, often with real-life connections, and uses of technology. Through discussions with researchers, the teachers discussed several arts-integrated curricular aspects that enhanced their teaching. These included:
 - An inquiry orientation. Several teachers referred to their units' overarching Inquiry questions and how they function in their units. One teacher described that inquiry questions contain big ideas can be chunked so that *students can articulate and think about it and discuss*. One teacher described how she helped students engage in the unit inquiry: *I rewrote the questions to apply to the specific unit. And so I asked them about their inquiry, sense, plan, create, evaluate and reflection, but I gave specific questions under those categories that applied to this unit. Can primary books teach young and old students Spanish? [Like] I reminded them of the question. Why do you think this question was chosen? Why is it interesting?*
 - Connecting thinking and doing, contexts in which students connect *what they read and what they experience* in creating art and performances.
 - Material Resources. Artistic processes expanded the *limited resources* available to them.
- Effective Teaching Practices (18, 81): Teachers described a range of teaching practices including practices they deemed creative, documentation, reflection, and various student grouping strategies. *Now it seems second nature and the nature of teaching, too. It's leaning way more towards show us the evidence and show us the reflections, so it's been very helpful in terms of, over time, having that become part of your practice, which spills over into anything that you do, anything you teach.*

Teachers helped students engage in aspects of the IB-TAP creative cycle. One mathematics teacher described her practice of helping students document their own process, teaching students to write "notes-to-self" in the process of creation of study guides written in their spiral notebooks: *Their spiral is the most important part of their materials for this year. And we go over it together, and they make what I call "notes to*

self.” We’ll stop at intervals along the way and I’ll say, okay, take some notes to self now, and I might give some examples. Notes to self might mean “don’t forget to check that integer sign.”

Teachers described that integrating content and the arts provides hands-on opportunities that are beneficial for students. As one science teacher stated: *I just felt that taking a simple topic...space exploration or a river system...when I do lab experiments for my kids, when you’re explaining something to them, they just don’t get the concept, but when they actually sit and do the activity and then they reflect on what they learned, then you can actually see, oh, when you’re reading their reflection, oh, okay, well, they actually used the vocabulary words, they actually tied in the art activity with the science concepts that I’m trying to teach.*

- Teacher Learning (16, 36): Teachers stated that they learned from the teaching artists and from their students as well. They developed an appreciation of what the Teaching Artists bring to their students and assimilating some of what they observed. One teacher noted: *I think adding [the Teaching Artist’s] expertise and her knowledge of artists and art is something that I am getting better with, but I’m not an expert at. We have two...whether you’d call me an expert or not, I’ve got the math and the understanding of the math curriculum, and she has an understanding of the arts. Another poignantly described her willingness to learn from the teaching artist: Just because I’m the math teacher, I don’t know everything. I have a lot that I can learn.*

Teachers grew in their understandings of what it means to approach subject matter creatively. One mathematics teacher described the difference between doing mathematics procedurally and being creative in mathematics to help students reach conceptual understanding: *There’s the person who is really good at math because they can follow steps really well, and a lot of times they’re really good students in general, and in math. And I appreciate them, they’re awesome. And then that’s one level, sort of, of accomplishment in math. And then when you’re given a random problem, just an out of the blue problem, maybe a non-routine problem, and you only know how to follow steps to solve a routine problem similar to the ones you previously did, or very slightly different, you really haven’t reached that next level. The next level is going to be where you’re being flexible, let’s say. I would say creative and flexible in using the different maybe routine things you did, but in different ways, or combining them in unusual ways.*

Through the IB-TAP curriculum, teachers more clearly understood their students’ capabilities and their student perspectives had changed. Several described changing their expectations: *One thing is that it does open my eyes to see the students in a different way. And you know how sometimes that can have an effect, like your own expectations have an effect on the student.* They discussed these new understandings. For example, one teacher powerfully stated: *after I kind of saw this other side of her...let me put it this way,...but I had a little more faith in her... okay, she can do a lot more than what I’m*

usually seeing. Another mentioned you really get to see the creativity of the students, how they work together, and their thought processes. Finally, one teacher expressed renewed curiosity about students: I was very surprised how many opinions that they did have, and I wondered a lot where they got them from, if they were things that they discussed at home.

Teachers commented on how the arts provides students with another modality in which to effectively express themselves, and that this impacts their confidence: *“what amazed me is that the students who weren’t as comfortable in the past were ready to jump in by mid to end of the year; “you see art all over the school, because I think a lot of kids, when they have a difficult time expressing themselves verbally, they find other ways to express themselves”.*

They recognized that other teachers do not always have the opportunity to gain these perspectives. For example, one teacher acknowledged that many colleagues describe students negatively: *“a lot of times you hear teachers say the students can’t handle that, the students can’t handle this.* These teachers did not have the opportunities that he had to see students from different perspectives.

Students’ Learning (15, 73): Teachers described evidence of students’ learning from Teaching Artists, and increased autonomy and engagement. For example, one noted: *The kids felt more... I mean, they were making their own problems up, so they were more invested in the actual process and the work and their outcome, which gave them more interest, versus me just saying, okay, here’s a story, or here’s the word problem. They seemed to be more invested in it.* Another teacher described student engagement during IB-TAP lessons: *So it did bring it more to life, and they are more engaged, and they have more fun, and it’s not just working out, on a piece of paper, their equations.* Another teacher described how critique sessions helped one student: *she said that her views changed... that feedback helped her out.*

In summary, the IB-TAP teachers found that arts-integrated curriculum and collaboration with teaching artists had impacted their learning and teaching practices. They noticed student-learning outcomes as well. Their collaborations with Teaching Artists (discussed in Variable 1 above, pages xxx) led to fresh approaches to teaching standards-based content. During Year 3, teachers cogently articulated the benefits of integrating creative processes into their classrooms, such as providing their students with hands-on opportunities, fostering flexible thinking and enhancing students’ conceptual understandings. As teachers’ reflections on their documentation grew, they gained deeper understandings of their students’ capabilities. Many teachers expressed changed expectations for many underperforming students. Teachers noted that as their students documented their efforts and shared their contributions with classmates and the larger school community, these students were making the curriculum *their own* and they could *contribute* what they learned to an audience. As a result the teachers noted multiple

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student outcomes including increased involvement; self-direction through planning, creating, and reflecting; and ownership, heard in comments such as: *I did this*.


C: Variable 3: Documentation of Curriculum, teacher growth and student learning (Relates to research Question 2: How does arts integration, combined with the IB Middle Years Programme, impact the development of high-quality arts integrated curriculum?)

Documentation has multiple functions within both arts integrated contexts and the IB Middle Years Program.


Historically, CAPE has defined documentation as “the recording of what you, the students, and all arts participants do, think, and feel” (Burnaford, et. al, pg. 166. Documentation also connects teaching and learning by helping educators get a fuller picture of how an individual student is or is not learning and growing. Examining the documentation aids teachers and artists not only in student assessment, but as they use that student information to refine curriculum, as they reflect on what is and isn’t working in their instruction.

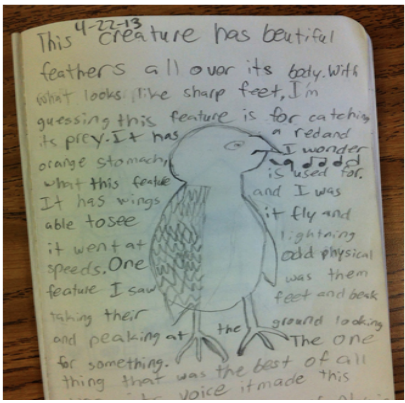
The IB Middle Years Program documents student work as well. As part of an IB external assessment process, teachers have the opportunity to collect and document samples of student products created during curriculum units.

The IB-TAP program incorporates these aspects of documentation. During the three years of IB-TAP project teachers, teaching artists and students documented the implementation of their arts integrated curriculum through products such as: (1) curriculum maps and assessment tools, (2) multi-media documentation of curriculum units, lesson plans and resources, (3) portfolios of students’ artwork. This documentation was called the Arts Integrated Development Workbook (AIDW). Teachers’ portfolios (T-AIDW) were online, digital, multimedia formats, and student portfolios (S-AIDW) were folder and paper/pencil systems. The image below displays the format for the teachers’ digital AIDW portfolios.



Josephine Locke Elementary
7th Grade
Following the Footsteps of Lewis and Clark



Inquiry	Sense and Plan	Create	Evaluate	Reflect
<p>Spaces to record reflections</p> <p>As I mentioned, Brad Parker and I developed this project 3 years ago. It has evolved over the years to give the students new challenges, but at its core the project has remained the same - Physical, Social, and Political Observations of our Surroundings.</p> <p>Students really seem to respond to this project. It gives them a chance to write in their own words, what they see. Even those students that have trepidation about writing and drawing find the project opens their eyes and minds to a new way of moving through this world - with more courtesy and alertness.</p> <p>Edgar has expertly carried on the tradition of this project and expanded the ideas involved in creating a journey. Working with Edgar is transparent - we allow the students to see the process and involve them in decision making. The students themselves made all of the decisions in their journals. They decided how much effort, how much detail, and how many drawings to include. Some students went above and beyond the requirements and it was evident that they took this "assignment" as more</p>	<div style="text-align: center;">  </div>			

←

Folders in which to organize text and upload multimedia

←

Areas to upload media

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Portfolio cultures provide opportunities for teachers and “students to learn how to examine their own work and participate in the entire literacy/learning process” (Graves & Sunstein, 1992, pg. 4). The following data sources provide information as to how teachers developed and used their own portfolios, and provided opportunities for the students to do the same. The chart below displays pertinent data concerning teachers’ use of portfolios within the IB-TAP curriculum.

YEAR ONE	YEAR TWO	YEAR THREE
Teacher AIDW Rubric Score averages 2.1: Documentation uses multimedia and tells the story of the IB-TAP project. Teachers were not using student artifacts to inform curricular decisions or provide evidence of student learning. However, teachers reported in PD exit surveys that this was a definite focus o their work.	Teacher AIDW Rubric Score averages 2.1: Documentation uses multimedia and tells the story of the IB-TAP project. On PD Exit Surveys the mean for teachers and/or students documenting their learning processes during Year 2 was less than the mean for the Baseline Year In interviews, teachers report using the documentation to modify curriculum.	Teacher AIDW Rubric Score averages 3.3: Documentation shows variety in the types of artifacts selected. Documentation tells the story of the IB-TAP project. Documentation is written in the student voice.

During Year 1, teachers collected relevant curricular artifacts to provide a narrative of their curriculum units. These artifacts provided explanations of the inquiry questions guiding the units; descriptions of the lessons, materials and exemplars of student interactions; indications of how lessons were taught; and reflections on challenges and successes. At this point, they were not systematically assessing student artifacts nor using that information to refine the curriculum. Their documentation efforts were much the same during Year 2. In Year 3, the teachers’ portfolio practices grew, as they provided variety in the types of artifacts selected in order to better capture the teaching and learning context. Teachers’ efforts to incorporate students’ voices into their documentation also increased.

1. Year 1: Learning about documentation

I think that when we were going through step-by-step in terms of the sense, create, the plan, that we had good examples, even though we may not have had perfect projects. And so by looking at that and going back and looking at it once you’re finished, it looks far better than what you thought. So I think that I’m just a harsher critic in terms of the complete project, and that if students are learning process that it doesn’t need to be perfect.
7th grade teacher year

Relevant Findings

PD Exit Survey

IB-TAP Creative Cycle Indicator: Document and Evaluate		
Teacher thinks of what the student work would look like in order to facilitate curriculum planning (13)	14	4.5714
Teachers and/or students document their learning processes (14)	14	4.1429
Teacher uses Developmental Workbooks outside of the IB-TAP project (15)	13	3.2308
Teacher utilizes multimedia documentation to capture student learning in my classroom. (16)	14	3.4286
After any project is finished, teacher uses AI-DW to discover what was missing or successful in the curriculum. (20)	13	2.8462

As indicated by the final Year 1 PD Exit Survey, IB-TAP treatment school teachers had some familiarity with documentation upon entering the IB-TAP program. They indicated that they think about student work as they are planning curriculum (item 13 above). It is likely that their curriculum planning documents (MYP's) facilitate their thinking. The MYP documents incorporate a backward design process similar to that advocated by Wiggins & McTigue (1998). Teachers begin by with the curriculum unit inquiry question and develop an assessment plan for evaluating student learning. They then plan learning activities that are consistent with unit assessment and inquiry questions.

IB-TAP teachers also indicated that teacher and/or student documentation is a definite focus of their work. However, formalized approaches such as the IB developmental workbooks or the use of multimedia to document student work were somewhat a focus of their work. Use of the IB-TAP AIDW's was not a focus of their work at that time (see item 20 above).

Artifact Analysis: Teacher AIDW's:

The mean score for teachers' AIDW's was 2.1 during this first year. Not all teachers units' were documented. Many units documented were one-dimensional. They addressed the themes or prompts provided, but often using singular responses with minimal reflection.

For example, in the photo below images are the only sources of documentation used in the "Reflection" section. These images depict a student showing one of the curriculum artifacts produced, as well as final products. There is no annotation that describes the work, the various ways in which students' engaged in the artistic process, nor teacher description of how these images might reflect their own learning or insights.

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Inquiry	Sense and Plan	Create	Evaluate	Reflect
<p>Give us a snapshot of the classroom teacher and teaching artist(s) reflections from the unit. If you are having trouble deciding what to write, use the below prompts to help you. Just one caveat in this section, you have to answer the state standards question:</p> <p>What state standards from multiple disciplines were most emphasized?</p> <p><i>What do you think you learned from implementing the IB-TAP curriculum? Please provide artifacts that describe evidence of that learning.</i></p> <p><i>What do you think was successful about the collaboration between you and the teaching artist? What could have been improved?</i></p> <p><i>How did you ask your students to reflect (i.e. journaling, photo narratives, presentations, etc)? Were those approaches appropriate for the materials, concepts, and skills involved in the IB-TAP project? Why or why not?</i></p> <p><i>Did attributes of the learner profile emerge through this unit? What were they and why?</i></p> <p><i>How did you share your reflections with others (teachers in school or at other schools, family, administration)? Why was this valuable?</i></p>		 		

Image showing pictures without description or reflection

Another example below shows the use of images and text. Images are labeled, but not annotated. The authors respond to the question prompts, but reflections are minimal.

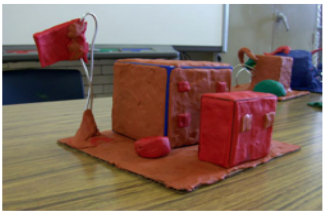
<p>What state standards from multiple disciplines were most emphasized?</p> <p>For the visual art portion of the project, the following state standards were emphasized.</p> <p>STATE GOAL 26: Through creating and performing, understand how works of art are produced.</p> <p>26.A.3e Visual Arts: Describe how the choices of tools/technologies and processes are used to create specific effects in the arts.</p> <p>26.B.3d Visual Arts: Demonstrate knowledge and skills to create 2- and 3-dimensional works abstract and functional.</p> <p>What do you think was successful about the collaboration between you and the teaching artist? What could have been improved?</p> <p>We had a success during the art portions of the project because both teachers were co-teaching during the sessions. For the future work on this project, we will need to make sure there isn't such a big gap between the two portions of the project. Having done the unit, we now know how to schedule for next year.</p> <p>How did you share your reflections with others (teachers in school or at other schools, family, administration)? Why was this valuable?</p> <p>The 8th grade students had the opportunity to share their work with the 6th and 7th grade classes as well as some parents and Kellogg administrators. One 8th grade student explained the project to the audience which was gathered in the gym. Then the audience moved to the second floor to see the maps and sculptural projects.</p>	<p>8th grade sculptures</p>  
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Image showing pictures and text

There was some range in documentation during this first year. For example, the image below portrays dynamic images and annotations that convey the processes students'

engaged in. Both the teacher and teaching artist respond thoughtfully to the prompts, providing their rationale for why the unit's focus is important to this group of students.


<p>Why did you both choose to focus on this inquiry? What will it help you to learn? What need is it addressing?</p> <p>Ellen: Looking at self is always a great way to enter into the creative process for students because they have the knowledge of themselves that is familiar and comfortable as a starting point. However, when concept of self is expanded further to the student's own family history, students have the opportunity to learn more about themselves through others.</p> <p>Jenny: Examining one's own culture and traditions is important in order to become more knowledgeable about another's culture and traditions, the foundation of the IB program.</p> <p>What other inquiries arose during your unit? How did you address them?</p> <p>Jenny and Ellen: Students struggled with symbols to represent family heritage and values. Brainstorming and sketching examples helped them flush out ideas and move forward.</p>	 <p>Students creating symbols for their coat of arms. The students referenced their family interviews to help them decide on the symbols that best represented their family's characteristics.</p>
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Image with pictures, annotations, and thoughtful reflections

Teacher Interviews:

During the Year 1 teacher interviews, teachers noted the ways in which they document student work:

- To showcase student work: *placing student work around the room; sharing with parents*
- As a record of their own teaching: *Keeping originals of student work, and curriculum materials. So there's original things, like the class work, homework, bell ringers, and the final projects, so this is how I document. Now, I document also the work of the students. Yes, I mean, Well, I keep the originals.*
- Providing opportunities for students to keep process journals: *I've been using it these last five years, a process journal where they explain to me the planning stages, I call it the developmental stages. The first one is the planning stage, okay, after they get the planning together. It's a thorough process. You explain to me what did you do, so it's several pages where they actually write down what they plan to do, how they plan to do it.*
- Using student work as exemplars during instruction: *But an example would be taking some of those extended responses that were outstanding and one that was average and putting them on the overhead and highlighting. We go through and we highlight, okay, where did this person use the text to answer? And we'll use a*

certain color highlighter, and we'll say, well, where did they put their own ideas? Let's highlight that with a different color. And is it balanced? Are they the same? Is there about the same amount of this and that? So then using that as a model, definitely I do that.

- *Conferring with parents: The recordkeeping is something that has been ongoing with us, since we are an IB school, and it's a very valuable tool. It's a wonderful thing to sit and show a parent at a report card pickup. For me to see a before and after, this is what you did and 11 sessions later this is how much deeper, it just helps guide your future instruction for what made things more meaningful for the kids.*

IB-TAP Portfolio Conference Interviews:

During the annual Student Portfolio conferences, teachers were interviewed about various aspects of the IB-TAP Project. During year one teachers' comments indicated that they understood the process of documentation and why it is important: *when you look at something that you did in the past and you have to sort of reprocess what you did and why you did it, and what was this, and why did we even do this, especially if you have to articulate it, you have to process it yet again, and so I think that's extremely helpful for them, and for all of us when we're learning something.* One teacher also described that students were also familiar with the process of documentation: *So by the time M came along, they had already completed some tech design cycles with Ms. B for the IB class, and then they had already completed the tech design cycle with me for humanities,...they had some comfort level as far as being able to talk about what it is that you're supposed to be doing, reword it, what are your goals, what do you need to complete this assignment, and how do you feel as you are doing this assignment, and what did you get out of it. So they have some comfort level on being able to do this at this point.*

However, many teachers were dealing with logistical challenges. For example, one teacher recognized that students should have ownership of their portfolios, but students often lost them: *Well, you definitely took the word "cumbersome" right out of my mouth. We're having a little bit of an issue with keeping track of them. The kids want to take them, and we initially wanted them to take them because they're supposed to sort of have ownership of it and be able to put things in and take them out. And they were getting lost at such a high rate, and we had to replace a lot of them, and then, well, there went the stuff that was in them.* Another noted that a lot of the time it's a mental note, just because I'm so much on the fly and it's hard to document, on paper, everything.

Solutions to challenges were discovered. One teacher described her solution: *So I've actually just begun keeping them in my classroom, so they're more like a file folder that the teacher would keep, which is really useful to have the work the for them to look over it. It's not as great as it would be if they could always take it with them. But I think having a collection of their work is really important, and that's why teachers keep folders. And so this is kind of similar in concept.*

Lack of preparation was noted as a challenge: *I mean, I think the biggest problem with that is we weren't walked through it to begin with, so we were kind of just thrown it at the end and trying to kind of backtrack, and then nothing saved.*

2. Year 2: Continuing the learning

I was looking through the pictures,like the reflection...having the documentation helped me a lot, the photographs and the artwork and everything that they did. I was able to realize — that what they actually did was kind of good, but I'm not sure if I totally got it or they totally got it, or even if the artist totally got it until I was able to sort of step back from it and go, okay, now that the ISAT is over and now that the school year is over, and now that I don't have to worry about how I'm going to grade them and all this other stuff, okay, I see what was really good about this.

6th grade teacher year 2

Despite the challenges that teachers noted during Year 1, they did find their AIDW portfolios to be helpful. They garnered some insights, particularly related to student learning. However, their documentation processes were similar to Year One.

PD Exit Survey: A paired-samples *t* test was conducted to evaluate whether teachers' creative practices had changed from the baseline year. The results indicated that the mean for teachers and/or students documenting their learning processes during Year 2 ($M=4.57$, $SD=.97$) was less than the mean for the Baseline Year ($M=5.42$, $SD=.53$, $N=7$). These interpretations should be guarded, as the sample size was quite small. However, the results can be thought of as practically, rather than statistically significant. This change in the teachers' self reports about their uses of documentation could have been a reflection of their growing understanding of how to use documentation as a learning tool. During Year One interviews, teachers described multiple reasons for their documentation practices, including showcasing student work, using student artifacts as instructional exemplars, and sharing progress with parents.

However, the IB-TAP program stresses using documentation to reflect on and provide evidence of student learning and for teachers to detail their own professional growth. This is a different approach for IB teachers and Year 2 professional development workshops immersed them in this approach. As one teacher noted, they had the opportunity to more systematically inspect student artifacts in order to evaluate and refine their curriculum units: *And so I know that I went back and looked at some of the things that I had written for the computer thing, and went back, used the pictures, went through them and just looked through I even looked through the portfolios, which, some of the kids don't use them as much, but the ones that had stuff in them, and I was like, okay. I was able to really say what we could improve, what went well, what we already improved. I found it extremely helpful.*

More purposeful or pointed processes: *last year I was using a camera and I was trying to document way too much. I was trying to document a lot, which meant that it took a long*

time to download. And with this I can look at the parts that I need to look at and focus on those little sections at a time, and I can – whatever I document that I really want to keep,

3. Year 3: Documentation becomes second nature

Teachers' use of documentation became a feature of their practice as they used images, video, and text to capture student effort, reflect on student interactions and evaluate their curriculum in greater detail.

Teacher Interviews:

Teachers discussed their evolving ideas about documentation during their annual interviews. Their comments detail their deepening practices. *It's made a huge impact because making sure that you're always taking pictures of the work, showing...you always think about it after the fact, and so it's made us put into practice doing it ongoing so that you're taking pictures.*

One teacher observed how the habit of documenting and reflecting on student work connects to other aspects of her teaching: *But now it seems second nature and the nature of teaching, too, in terms of evaluations and that. It's leaning way more towards show us the evidence and show us the reflections, so it's been very helpful in terms of, over time, having that become part of your practice, which spills over into anything that you do, anything you teach.*

Another teacher realized how the practice of documentation helps her to more fully understand her students' thinking: *There's a value not just for me, but for them as well. I think sometimes as teachers we get so caught up in have the kids to write it down or do it because they need it or we need to turn it in or show it to someone. But the value was bigger than that. We needed that documentation. We needed to see the thought process on paper.* One teacher detailed that using documentation helps her better understand her students and their learning needs: *And having the documentation, you can pay attention to what that personality is and what their needs are, and knowing sometimes we had to go back over some things.*

Teachers improved their efforts to help students engage in process documentation. One mathematics teacher described her practice of teaching students to write "notes-to-self" in their journals that become study guides: *Their spiral is the most important part of their materials for this year. And we go over it together, and they make what I call "notes to self." We'll stop at intervals along the way and I'll say, okay, take some notes to self now, and I might give some examples. Notes to self might mean "don't forget to check that integer sign.*

Many teachers observed that as students shared their documentation with the larger school community, their peers' interest was sparked: *at the end of the year we had to do a culminating presentation. We had to present some of our best of projects to the entire*

program, sixth, seventh, and eighth grade. And when I presented this and some others, the kids in seventh grade came up to me and asked me about the project. Said, "I want to do that project."

Not all IB teachers expressed positive attitudes towards documentation. One teacher was more receptive to student documentation than to her own: *I think it was pretty okay. I mean, the student part of it was definitely okay. I mean, it was pretty self-explanatory for them. And they're used to it with IB stuff, so they know how to plan, research and plan and reflect and all that stuff.* When asked about teacher documentation, this teacher noted: *To be honest, E(the teaching artist) did a lot of the computer work, so I don't know. I know that this time when we do it I have to be more of a presence for that part.* Another stated: *It's just more paperwork. I think it was more a matter of just whatever they wrote down, whatever they were brainstorming and that, I took, and it wasn't just always, like, oh, I wouldn't want that. I just took it all and then I'll decide what they should keep and that kind of thing.*

Artifact Analysis: Teacher AIDW's

The mean score for the Teacher AIDW's in Year 3 was 3.3. Their documentation continues to provide a narrative of the IB-TAP unit, but shows greater variety in the types of artifacts selected to do so. These include planning documents, videos of student created projects, samples from students' process journals and their written reflections.

Teachers focused their image capturing efforts in order to exemplify the creative processes students engaged in to create their final products. The image below depicts the sketching process students' used to create final block prints

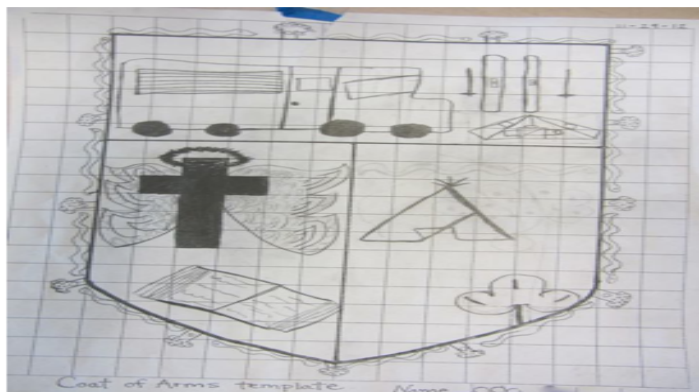
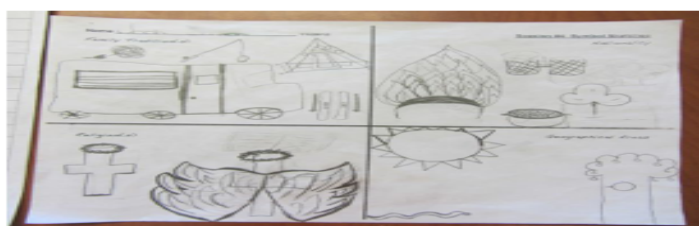


Figure 1: A student's symbol sketches and final coat of arms template drawing.

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The image below portrays the journaling process another group of students used to replicate processes used by the Lewis and Clark expedition.

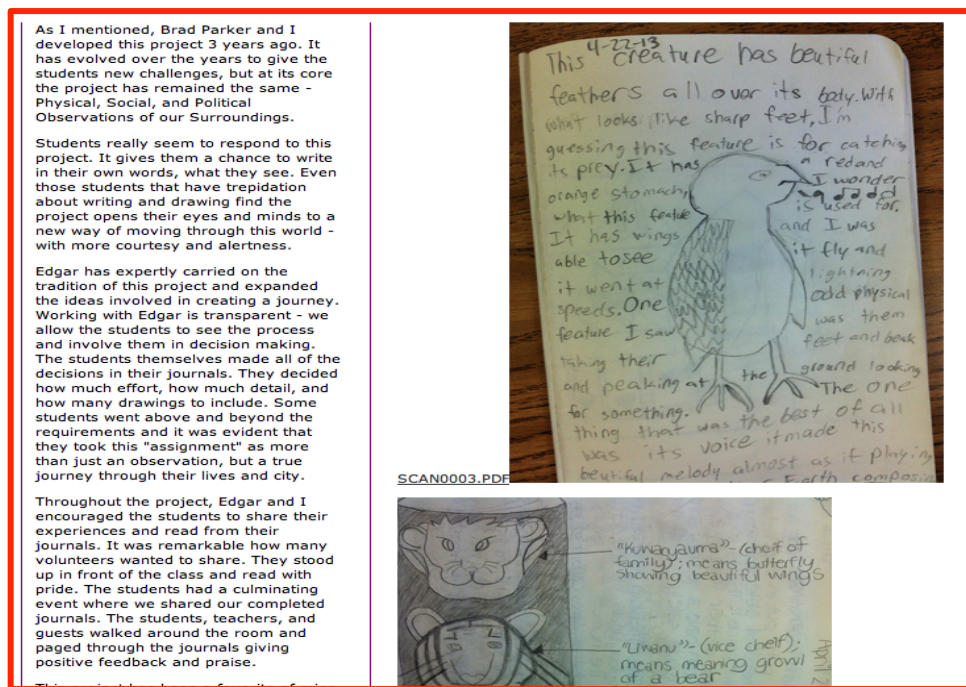
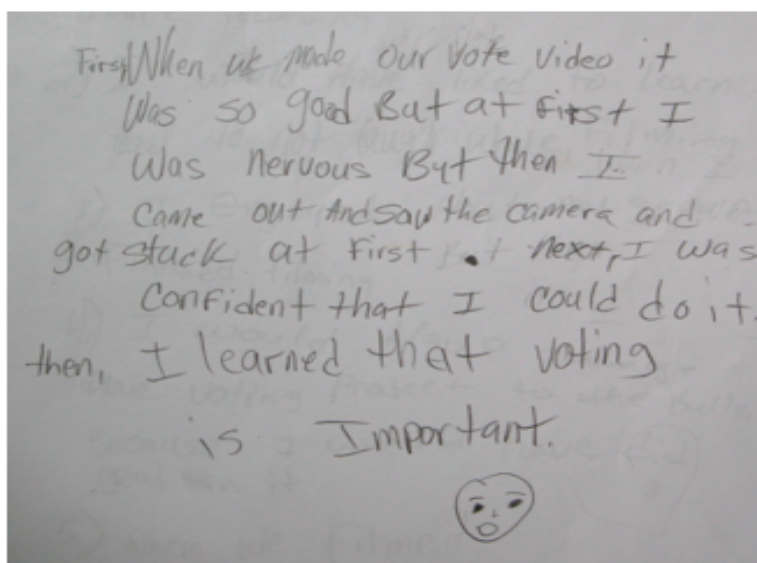


Image showing pictures of student journals

Many teachers AIDW's contained ideas and examples of student voice. In one humanities project, a teaching artist poignantly describes the nature of a student centered curriculum: *It is one thing for a teacher and a teaching artist to present facts and ask students to simply replicate an art form through projects... it is an entirely different experience when students make the decisions along the way. They define their own content. They define how they will present their information. They decide what issues are important and worth fighting for. And they decide how to convince not only their peers, but the community that their Amendment deserves recognition.*

Other examples conveyed how teachers earnestly provided curricular space for students to share their voices and reflect on their experiences. The image below shows an example of how one student describes changes in her confidence.



First I was nervous...next I was confident....then I learned voting is important.

Finally, another student described not only what but *how* she learned: she didn't just learn facts but the curriculum *gave her the experience to explore*. In addition to learning about exploration, the unit helped this student to raise questions, such as *how was America* and what was life like without technology. Through these she can shape future historical inquiries.

In summary, teachers made notable growth in their efforts to document their IB-TAP units during Year Three. During Years One and Two they collected relevant curricular artifacts to provide a narrative of their curriculum units. They were not systematically assessing student artifacts nor using that information to refine the curriculum. In Year 3, the teachers' portfolio practices grew, as they provided variety in the types of artifacts selected in order to better capture the teaching and learning context. Teachers' efforts to incorporate students' voices into their documentation also increased.

D: Variable 4: Reflection and Use of Student Artifacts to improve curriculum and instruction (Relates to research Question 2: How does arts integration, combined with the IB Middle Years Programme, impact the development of high-quality arts integrated curriculum?).

Reflection and evaluation are complimentary processes. In IB-TAP, students and teachers are encouraged to “take stock” of their planning efforts, how their inquiries are evolving, their interactions with their peers, and their production of artifacts. Reflection and evaluation help IB-TAP teachers and students to capture insights, set new directions for artifact creation, and make decisions about their work. Students are invited to include their own critical reflections that inform the process of their making artifacts, capturing the discoveries and insights they made, and discuss the their strengths and weaknesses of both the process of making and of their completed artwork. As noted by Gardner, “Reflection means to be able to step back from both your production and your perceptions, and say, "What am I doing? Why am I doing it? What am I learning? What am I trying to achieve? Am I being successful? How can I revise my performance in a desirable way?" (Gardner, quoted in Brandt, 1988 pg. 32). Both teachers and students grapple with questions such as these in their curriculum units and the IB-TAP creative cycle.

The table below displays some of the AIDW question prompts that fostered teachers’ evaluation and reflection of the IB TAP curriculum units, their learning, and student learning.

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Curriculum and Teacher Learning Questions	Student Learning Questions
Did the course of the curriculum change? If yes, how did it change? If no, why not?	How did you see your students researching, exploring ideas, and planning a course of action for this project? <u>Provide exemplars</u> of student work when possible.
What assessments did you use?	
Did you think The IB-TAP curriculum was successful? What artifacts demonstrate this?	What do you think was the quality of student reflections made during this IB-TAP curriculum project?
How did you ask your students to reflect (i.e. journaling, photo narratives, presentations, etc)? Were those approaches appropriate for the materials, concepts, and skills involved in the IB-TAP project? Why or why not?	What were some of the difficulties and challenges that students encountered during this curriculum project? How did you help them address these? What solutions emerged?
What do you think you learned from implementing the IB-TAP curriculum? <u>Please provide artifacts</u> that describe evidence of that learning.	What are some examples of how students modified and adapted their original ideas?
	How did you see your students react to new materials? New Ideas?
	At what point were they able to solve a problem? How do you think they were able to reach that point?
	How did you ask your students to be critical (critique) of their own work?

Questions such as these invited teachers to step back, to look over student artifacts, and to evaluate with their teaching artists the success of the curriculum units and strategies for improving future units. Teachers' comments varied. The table below offers exemplars of the range of response to curriculum reflection and evaluation questions.

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Did you think The IB-TAP curriculum was successful? What artifacts demonstrate this?		
Response is generic (1 pt. on AIDW Rubric)	Response is one-dimensional/ It addresses the question but only reflects a singular answer (2 pts. On AIDW Rubric)	Response represents connected thinking across disciplines (3 pts. On AIDW Rubric)
<i>This was very successful as evidenced by the beautiful scrolls the students created.</i>	<i>I felt the unit was a success. This is a group of math students who need a lot of repetition and different modes of learning to recall and understand. They really aced the information and remembered it in detail even on the last day of school.</i>	<i>We felt that this IB-TAP unit was a complete success. The family interviews, the sketches, the carved Soft-Kut blocks and the final prints demonstrate the successful understanding of the concepts and goals of this unit. This opportunity allowed students to discover through inquiry more about their family heritage. It successfully integrated two IB subject areas meeting the aims and objectives of both. In addition to their final prints, their interviews, sketches, templates and Soft-Kut blocks are all artifacts demonstrating their knowledge of this process.</i>

The comment in the left-hand column is limited in its scope. It references student artifacts, but does not describe or point to examples of how they reflect the intended outcomes of the project or growth in student artmaking. The teacher whose comment appears in the middle column points to a student outcome indicating a successful curriculum (acing the information, remembering details of unit) but in a very general, non-specific way. Finally the teacher whose statement appears in the right-hand column is noting cross-disciplinary activities designed to engage students in an inquiry process such as interviewing family members, sketches, and templates. These processes facilitate inquiries in humanities (oral history), technology (design) and artmaking (blockprinting).

Teachers' comments about their own learning varied as well, as exemplified below.

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What do you think you learned from implementing the IB-TAP curriculum? Please provide artifacts that describe evidence of that learning.		
Response is generic (1 pt. on AIDW Rubric)	Response is one-dimensional/ It addresses the question but only reflects a singular answer (2 pts. On AIDW Rubric)	Response represents connected thinking across disciplines (3 pts. On AIDW Rubric)
<i>Students love incorporating artwork with Humanities</i>	<i>As a result of this project I was personally amazed at how resilient students were able to overcome the various problems they encountered. In addition, students were able to use their high order thinking skills that allowed to solve their various problems and implement a working solution to them.</i>	<i>I learned more about the arts and how they impact our lives. I learned that students need explicit guidance when using new materials. I learned from the teaching artist that having the days' lesson and the purpose of the session clearly posted allowed students to understand the plan for the day. As a result I felt that this years work provided a greater depth and showed student understanding. I learned that working in a smaller groups allows for more opportunity to interact with students and assist with the process.</i>

The comment in the left-hand column is a generic and surface level reflection. This teacher has not attempted to detail what aspects of artwork or media do they particularly enjoy. No thought is given to why incorporating artwork is important to students academically and socially. Nor does this teacher think about how the arts integrated experiences help her to better observe and understand her students as learners. The teacher comment in the second/middle column has clearly reported new insights about the students: they are resilient and can apply higher order thinking skills to solve problems. However, this assessment was not supported by any evidence or examination of artifacts. The final comment in the right-hand column specifically details one teacher's learning about the arts, about her students, and about effective curriculum.

Teachers' own reflections, as well as the opportunities they provided for their students to reflect, evolved during their 3-year involvement in IB-TAP. Overall, teachers' made significant gains with respect to reflection in Year 3 of the project, as indicated in the table below.

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YEAR ONE	YEAR TWO	YEAR THREE
<p>Teacher AIDW Evaluation Construct Rubric Score averages 1.6 Teacher AIDW Reflection AIDW score averages 1.2.</p> <p>Teachers indicated that reflection to be a major focus of their work.</p> <p>Teachers indicated that student-centered practices, including encouraging student feedback in order to inform their curriculum and providing students with opportunities to critique their work was a definite focus of their work.</p> <p>Assessing student work in arts integrated contexts was “somewhat” a focus of their work.</p>	<p>Teacher AIDW Evaluation Construct Rubric Score averages 1.4 Teacher AIDW Reflection AIDW score averages 1.1</p> <p>In interviews, some teachers note that looking at student artifacts helps them to better assess what students learned.</p>	<p>Teacher AIDW Evaluation Construct Rubric Score averages 2.8 Teacher AIDW Reflection AIDW score averages 2.8</p> <p>Many teachers (17/19) note that systematic reflection helps them to better understand students.</p>

During Year One, teachers reported valuing reflection but characterized their reflective practices as informal. They also supported student centered practices such as providing opportunities for students to critique their work. The reflection and evaluation practices present in the teacher portfolios (AIDW’s) were typically generic during years one and two. In these portfolios the teachers were not systematically analyzing student work or results on any teacher created assessments of their units. However, collecting images of the unfolding curriculum appeared to help them informally assess what students were learning. In Year 3, teachers made significant gains with respect to evaluation and reflection. As teachers were committed to capturing student artifacts over the years and more systematically analyzed them as they created their portfolios, they reported insights related to their students’ capabilities and potential.

Multiple data sources were analyzed using grounded theory techniques to identify several themes related to teachers’ reflective practices. These included the PD exit surveys, annual teacher interviews and portfolio conference data, as well as the AIDW rubric scores. The predominant themes that emerged are discussed below.

Theme One: Teachers’ reflective practices:

IB-TAP Creative Cycle Indicator: Reflection and Evaluation (item number in parenthesis)		
Item	N	Mean
Teacher reflects on his/her teaching practice on a continual basis. (22)	12	5.4167
Teachers make pre and post assessments to assess student learning in an art-integrated activity. (19)	14	3.1429

During Year one, IB-TAP teachers entered the program valuing reflection, and they reported that reflecting on their practice on a continual basis was a considerable focus of their work. Using systematic means such as pre and post assessments was not as emphasized, as they noted it was somewhat a focus of their reflective practice. This is reiterated in their interviews, as most teachers shared that their reflective practices were informal. For example, one teacher noted:*there is reflection informal. I don't write anything down [on what] you can check on what I'm doing. I guess as I see things that work, I keep them, and if they don't work, I pitch them.*

Informal reflection also occurs between teachers: one teacher described *I don't think we do too much formal reflection. At the end of a project or unit, in particular, I will go back and with the – if it's math, I'll work with the other two teachers and we'll talk about what worked and what didn't work, and how did you approach this, and this is what I did, and I don't think it worked, and so we have discussions among ourselves.*

In Year 2, this teacher realized that systematic reflection using artifacts has great benefits: *I was looking through the pictures, and it really did....like the reflection...having the documentation helped me a lot, the photographs and the artwork and everything that they did. I was able to realize – this is one of the things that I told you before – that what they actually did was kind of good, but I'm not sure if I totally got it or they totally got it, or even if the artist totally got it until I was able to sort of step back from it and go, okay, now that the ISAT is over and now that the school year is over, and now that I don't have to worry about how I'm going to grade them and all this other stuff, okay, I see what was really good about this.*

During their Year 3 interviews, many teachers gained experience with formal reflection through IB-TAP's documentation processes. They shared that this systematic reflection helped them to see their students with new eyes: *One thing is that it does open my eyes to see the students in a different way. And you know how sometimes that can have an effect, like your own expectations have an effect on the student. So, for example, this student, she's, I'm going to say, a little below average in her math achievement. She doesn't really struggle a lot, but a little below average, and lots of repetition is needed to try to get her to do something, and then she gets it. But after I kind of saw this other side of her, and I kind of like, maybe like...let me put it this way. I might be exaggerating a little, but I had a little more faith in her, let's put it that way, that, like, okay, she can do a lot more than what I'm usually seeing.*

Theme Two: Student reflections guide teachers' curricular refinements

IB-TAP Creative Cycle Indicator: Reflection and Evaluation (item number in parenthesis)		
Item	N	Mean
Teacher uses students' feedback to co-create curriculum that is student centered. (17)	12	4.7500

On PD exit surveys, teachers indicated that using student feedback to refine curriculum was a definite to considerable focus of their work. They shared their insights during interviews. One teacher noted that listening to students helps her better gauge their understanding of concepts taught in a unit: *I always use the students' reflections, yes. I have to because then that will kind of guide me the next time she comes, or even with any unit that I do. If I read and see that they didn't understand or they didn't really grasp the essential question, the unit question, then we'll go back and then I'll review for them. I don't like to just give them my opinion all the time. I like to hear what they have to say. So I definitely use the student reflections to guide me in my units.*

Teachers discussed ways in which they invite students to share their opinions about the IB-TAP curriculum. One teacher shared that student feedback helped her to critique the curriculum: *After almost every single class, especially at the end of each year or each unit, each unit we had this, we talked about, all right, this worked well this year, let's remember that idea for next year going into it. Like now that we have these organized worksheets and stuff like this. This came about because of our discussions from the previous year. As student voice became a more predominant feature of classroom instruction during IB-TAP, their confidence increased. Student became more insistent on helping teachers improve activities. Bravery. Getting in front of the kids and just speaking. That transcended into just their involvement inside the classroom, asking questions, becoming more vocal, pushing on me.*

Theme 3: As students' reflect, they set their own learning pathways

IB-TAP Creative Cycle Indicator: Reflection and Evaluation (item number in parenthesis)		
Item	N	Mean
Teacher implements critique sessions or student conferences, where the students explain and receive feedback on their work (18)	13	4.3077

On PD exit surveys, teachers indicated that critique sessions or student conferences, where the students explain and receive feedback on their work, was a definite focus of their work.

Some teachers felt that critique was a “habit of mind” stressed within a particular content area. One teacher noted: *we can talk about it in a number of ways, but just maybe in the humanities there's something about critical reflection or critique and analysis or something like that that they might be learning some of the same steps or similar steps in math.*

Many teachers made reflection a purposeful component of the curriculum. *We're going to make it official, and our ideal goal is to have them start it in sixth grade, year one in*

the program, and this traveling portfolio grows and grows, and by the end of eighth grade, they have three years of reflection. And the quote that we put on here, "What we are today comes from our reflections of yesterday and our present thoughts build our life of tomorrow" is kind of to give them an idea that everything you do, you do for a reason, and it will help prepare you for what's to come. Teachers found reflection to be a viable teaching tool: So they were given the opportunity to pick three from their portfolios, three artifacts to include in their portfolios, and those were the reflection pieces for each of their activities. So when you're sitting and discussing and reflecting on the lesson, sometimes I don't even have to bring up the vocabulary; they will bring it up. You know, so that's why I know they make a connection. So that was, like I said, another teaching moment.

Students learned lessons about leadership and group dynamics as they reflected on their lessons. One teacher noted: *there were two young girls who took over the group. They made the decisions. And they made all the wrong decisions. I mean, horrible, horrible choices. But they were a force where they wouldn't let the other people in the group speak; they wouldn't let them make choices and decisions if they spoke up. And it was so difficult until the end. But that last day when we talked and we did our reflection, one of the main girls who was doing all the leading, all the talking, she hung her head low and she said, "I messed up".* Another teacher noted a similar situation: *I did notice that, you know, in their reflection pieces they did talk about, like one day we couldn't even continue because we had a couple of kids that were very disruptive and they wouldn't listen, and they weren't cooperative. So some of the kids, most of the kids were very disappointed in that day, and I think they expressed that in their writing.*

Some teachers felt that that students were not always honest nor did they provided effective critique to their peers: As one teacher noted: *But I think they have a really hard time critiquing each other because even with the comments, they'll say "he did a great job, he really helped me a lot, the best time I ever had." And they don't look at it the way we, I guess, as adults, want them to critique themselves, and be honest about what could I have done better.*

While teachers encouraged their students to reflect, they recognized that students required help and intentional instruction on how to effectively critique artistic and academic work.

Theme 4: Teachers explore strategies to facilitate student reflection

Many teachers described strategies that provided curricular space for their students to reflect on their learning experiences. The table below identifies those strategies and provides representative exemplars in the teachers' own words.

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Reflection Strategy	Teacher Exemplars
<p><u>Questioning</u></p> <p>Teachers raised questions for students to think and write about. These ranged from generic questions such as <i>tell me something that you did that was good</i>, to very specific such as the examples in the right-hand column.</p>	<p><i>I asked my students to critique their own work through their reflections in their AI-DW binders. We also had an oral discussion of "what worked" and what needed improvement for next year. Students reflected on the performance and sharing experience with the Kindergarten and first grade students. Some of the questions for reflection include: What was your student's name? What worked well? Describe in detail. What needs improvement? What would you change? Was the time with the younger students sufficient? Did you need to borrow additional books from your classmates? Was the reading level too easy or difficult? What changes would you make for next year?</i></p>
<p><u>Debriefing</u></p> <p>Teachers provide opportunities for the entire class to discuss their reactions to project activities.</p>	<p><i>I ask them to do reflections, we sit and we discuss what do they think they learned today and how is it beneficial to their learning.</i></p>
<p><u>Revisiting Unit Inquiry Questions</u></p> <p>Teachers prompt students to revisit unit inquiry questions through class discussion or in writing.</p>	<p><i>There's always a reflection in the unit that they have to cover. And their reflection is always how can we learn to conserve? Okay, what can you do to make a difference in conserving? What have you begun in your home that you can reflect on that will help conserve, your part in conserving electricity?</i></p>
<p><u>Dialogic practices</u></p> <p>Students are encouraged to raise questions and discuss their work with one another and with teachers and teaching artists.</p>	<p><i>So when I see some of these kids who learn the other way... by hands-on and by being able to talk to other kids, I think there's definitely room in it for learning</i></p>
<p><u>Planning and noting process</u></p> <p>Teachers provide reflective strategies for students to plan their artifacts and reflect on the creative processes required to achieve their project goals.</p>	<p><i>We asked our students to reflect by taking notes on large white construction paper with black Sharpie markers. This was the first step in the creative process for the students and also allowed them to plan and reflect on the process of creating the project. Students wrote their reflection on the creation process of their visual art project on the construction paper.</i></p>

Reflection Strategies and Exemplars

Summary

Teachers entered the IB-TAP program valuing reflection but did indicate any particular strategies for systematically engaging in reflection. The reflection and evaluation practices present in their teacher portfolios were generic during Years One and Two. They were not systematically analyzing student work to facilitate their reflections. In Year 3, teachers made significant gains with respect to evaluation and reflection. They were committed to capturing and analyzing student artifacts. They discussed insights related to their students' capabilities and potential in their AIDW portfolios. They also incorporated specific strategies and opportunities for students to reflect. Through these opportunities, students' voices became a valued feature of classroom instruction.

V. Ranking of Teacher Independent or Treatment Variables for Multivariate Analysis

Introduction

The previous section reported the IB-TAP teachers' growth as a group. Teachers entered the program valuing collaboration but had more experiences co-planning rather than co-teaching. Their arts integration experiences were minimal. During Year Two, the teachers' relationships with their teaching artists' intensified and their collaboration became increasingly effective. This resulted in more efficient curriculum planning between the partners and greater interdependency when co-teaching. The interdisciplinary focus of the IB-TAP curriculum units showed greater sophistication as teachers developed insights about the potential of artistic practices, such as critique, to enhance student learning. Finally, during Year Three, teachers' systematic documentation of their curriculum and reflections on students' learning were evident in their artifacts and interview discussions.

While these patterns of growth are advantageous and conducive to teacher development, the question remains whether and how these teacher changes impact student learning. This question has programmatic implications for both CPS and CAPE. The implications can also be farther reaching, important to urban school districts nationwide, arts organizations who partner with schools, and the fields of arts integration, curriculum policy and teacher professional development.

The objective of this aspect of IB-TAP research was to examine relationships between teacher variables and student outcome variables. The research questions guiding this aspect of IB-TAP research were:

- Which IB-TAP teacher variables predict student academic outcomes?
- Which IB-TAP teacher variables predict student arts learning outcomes?

Methodological Strategies for Classifying Teacher Variables:

Identification of Codes:

Multiple data sources were analyzed to specify relevant outcomes of professional growth that teachers' achieved as a result of their participation in IB-TAP. These data sources included

- Annual IB-TAP Teacher Interview transcripts. Each teacher participated in three interviews over the course of his or her three years of participation in IB-TAP.
- IB-TAP Portfolio Conference Teacher Interview transcripts. Each teacher observed one student portfolio conference for each arts integrated unit that was implemented, and participated in one interview before and after the students presented their portfolios to researchers.

- Teacher AIDW Documentation. Each teacher completed an online AIDW digital portfolio for each IB-TAP unit they developed and implemented. Therefore, each teacher should have completed 6 AIDW Portfolios.
- IB-TAP Effective Teaching Observational Data. A member of the research team observed each teacher twice during the course of each curriculum unit each year.

For a complete discussion of these data sources, please see Section III C: Data Collection Instruments and Procedures that begins on Page 10 of this report.

Sample:

Sixteen out of twenty three (70%) IB-TAP teachers in treatment schools comprised the sample for the multivariate analysis. These teachers and their students participated in the IB-TAP Portfolio Conference Interviews. The students comprised the sample investigating student-learning outcomes. Therefore connections between teacher and student data could be made.

Analysis of Data

Through IB-TAP, teachers collaborated with teaching artists, documented their unfolding curriculum, examined student artifacts and reflected on student learning. These activities garnered above rich data sources. Through grounded theory technique *emergent discovery of themes grounded* in the meanings that IB-TAP teachers made of their experiences was made possible. The purpose of engaging in grounded theory analysis was to identify teacher outcome variables that could theoretically explain whether and which teacher qualities predict student learning outcomes, and how they do so.

The process began by coding the above data sources. The conceptual framework used to initially code the data was derived from a content analysis of IB-TAP professional development materials and a focus group with teaching artists (see section xxx). Through constant comparison (Glaser & Strauss, 1967) a core set of codes was specified. As each artifact was analyzed, the corresponding codes were compared to those already identified, and as new themes (codes) emerged these were added to the core set.

Additional codes were then incorporated within this framework as they emerged from a subsample of seven out of the sixteen teachers. Year Two data was analyzed for this sample because the most complete data was obtained during that year. As 7th grade teachers participated in the portfolio conferences during Year Two, these teachers became the subsample. Additionally, these teachers had been in the program in both Years One and Two. The resulting codes became the final framework for analyzing the remaining sample of 9 teachers from Grades 6 and 8.

The final framework contained sixteen codes reflective of the teachers' artifacts and reflections. Please refer to appendix I, page 130 to view the codebook containing definitions and representative exemplars of each of these themes.

This analytic process insured data saturation. Each sentence spoken or written by the IB-TAP teachers fit into at least one of the codes. The robust sample size (16/23 teachers in treatment schools) and multiple data sets across multiple years reduced the threat of discovery failure, or the possibility that new codes might be discovered in the larger population not sampled.

Teacher Rankings for Multivariate Analysis: Predicting Student Learning from Teacher Variables

Drawing upon the codes, a teacher ranking system was implemented to facilitate multivariate analysis. Each teacher's comments related to each code were organized into a data summary template. So, for example, the following comment made by Teacher A was placed under the Co:Teaching/Planning code on her data summary template:

We scheduled a planning session after a few lessons. Both of us saw the need to incorporate more mathematical concepts in the unit. Just being more aware of this need drove us to ask mathematical questions during the course of the lessons.

In total, there were sixteen data summary templates, one for each teacher. Only teachers' comments that varied across the sample were included in the ranking schema. Comments that did not vary across teachers were excluded from the ranking schema. For example virtually all of the teachers noted that they modified their curriculum as they collaborated with the teaching artists (Co:Teaching: Modifying Curriculum code), as indicated by comments such as:

Teacher 1: (describing a curriculum unit theme of Family). *We had the students' question: How does my heritage influence me. So in the past I think getting kids to understand what does that mean, it just wasn't a student-friendly question. So we had them come up with some possible questions that they would ask a family member to find out more about their own families. So they each generated questions.*

Teacher 2: (describing a curriculum unit focusing on the book "Esperanza Rising") *And now I'm even thinking of another project to start next week that will align with this, this whole idea of Esperanza's journey and maybe divide the book up and let one group do the beginning of her journey, another group do the middle, and another group who have finished the book, there's a few, and let them do the end, and then compare it to this journey that they've been working on.*

Both of these teachers provide reflections and the ways that they modified or will modify the curriculum. As this theme was prevalent and little to no variance was noted across the sample, it was difficult to rank order teachers' comments and not possible to attribute student-learning outcomes to variance in teacher qualities or actions.

The following comments related to the Co:Teaching/Team Teaching do show a range in quality:

Teacher 1: *I gave him (the teaching artist) a book. He took the book home and he studied it so he had an idea of what the systems were all about. But I gave him full range to do whatever he needed to do. And he starts off with the fun and games, which I think is really a good idea, because it gets the kids excited and motivated....When he's there I let him take over, take the class.*

Teacher 2: *As a teacher I took notes while the artist taught new vocabulary and strategies. I made large scale posters to display around the room.*

Teacher 3: *As we proceeded through the scale drawing, both of us provided instruction on using the scale to reduce the actual size of the desks to the correct size on the scale drawing. Students were exposed the lesson from the mathematical and architectural points of view.*

Each teacher's comment about his/her approaches to co-teaching varies. Teacher 1 fundamentally hands instruction over to the teaching artist. Teacher 2 is not co-teaching when the teaching artist is in the classroom, however she is supporting the teaching artist by taking notes and creating instructional materials to reinforce student learning. Finally, Teacher 3 describes a fully co-taught lesson.

Teachers' comments related to ten of the 16 codes contained enough variance to be considered for a multivariate analysis. Once the data summary templates were completed for each teacher, the researcher compared teachers' comments and ranked each teacher using desired program outcomes as indicators. Teachers were ranked within rather than across grade levels.

These teacher variables will be described, and case studies will be presented to exemplify teachers' ranges of expression.

Discussion of Teacher Variables

The following section describes each of the themes and subthemes, including definitions, exemplars and interpretations.

Case studies of four teachers are discussed. Case study material was drawn from multiple data sources including annual IB-TAP Portfolio Conference Interviews, annual teacher interviews, and written excerpts from IB-TAP Digital Curriculum Templates.



Case studies were chosen to exemplify the range of IB-TAP teacher practices. CAPE's professional development provides each participant with flexibility to problem pose and problem solve his/her own unique approaches to arts integration methodology. CAPE and the IB-TAP program team believe that each teacher makes meaning of CAPE's methodology in his or her own way. Therefore, participants' learning outcomes are varied and not everyone achieves the same levels of sophistication integrating the arts in their

curriculum. Case studies provide a format in which to illustrate ranges of quality in teachers' arts integration practices.

Variable 1: Collaboration

A foundation of the IB-TAP program is partnerships between teaching artists, classroom teachers, IB-Coordinators and CPS students. Through collaboration participants plan instruction, teach, and assess student learning. Students are provided with viable models of collaboration as teachers and teaching artists work together. Students also collaborate with one another to ask and answer questions, work with materials, create artistic products, and reflect on what they had learned. Six codes related to collaboration emerged in the data sources.

The table below provides the Collaboration subthemes along with definitions and representative exemplars depicting ranges in teachers' expression of each subtheme.

	
(Emerging)	(Excelling)
Collaboration Subtheme: Teacher comments on improvement in relationship Classroom teacher describes improvement in TA collaborative relationship	
<i>I was able to....put down my lessons, like the concepts I was trying to teach them that day, and then she was able to add within the classroom or in the classroom.</i>	<i>This year it worked out really well. Last year I had never done it before so I wasn't really sure what to expect. But this year we picked a unit together and we were able to get through what we wanted to get done.</i>
Although both of these teachers' comments depict collaboration, the teacher in the right hand column indicates that knowing what to expect improved her collaborative relationship. The teacher in the left hand column depicts the more discrete roles played by each partner, which limits his opportunities for arts learning.	
Collaboration Subtheme: Planning Teacher describes particulars of how collaborative planning occurred	
<i>But the planning part itself I think was pretty easy ...with K we got together and in one afternoon pretty much laid out what we wanted to do.</i>	<i>We scheduled a planning session after a few lessons. Both of us saw the need to incorporate more mathematical concepts in the unit. Just being more aware of this need drove us to ask mathematical questions during the course of the lessons</i>
In the left hand column, the teacher describes planning as a one-time event. The teacher's comment in the right hand column describes planning that occurred "in the midst" of the curriculum, fostered by reflection on the curriculum as it was being implemented. The teacher and teaching artist's reflections enabled them to improve the academic focus of their unit.	
Collaboration Subtheme: Co-teaching/Team teaching Teacher explicitly describes the co teaching that occurred during classroom instruction	
<i>Well I think when he's there I let him take over, take the class</i>	<i>The students witnessed successful collaboration between the teacher and the visiting artist. My teaching was interspersed with her teaching. Instruction would often transcend to dialogue. Student questions were freely answered by either of</i>

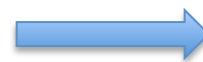
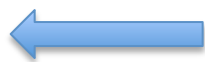
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	<i>us and we learned from each other.</i>
These two comments clearly depict very different approaches to co-teaching. One teacher turns over his class to the teaching artist. The other teacher explicitly describes a dialogic approach in which she and the artist share instruction, discuss aspects of the curriculum as it is being taught, and invite student questions as well. In the process, both teacher and artist have the potential to learn from one another.	
Collaboration Subtheme: Educating One Another	
Teacher makes a statement that they have learned from the TA and/or they specifically describe what they have learned	
<i>M is an expert on art. And by learning from her, I'm like wow, I should have conversations with you weekly throughout my life so I can pull great ideas into my teaching. Because we do learn from each other.</i>	<i>I worked to insure that I used correct terminology as I assisted with the students.</i>
The teacher in the left hand column acknowledges how much she is learning from the teaching artist and the potential that has on her curriculum, yet she does not provide any specifics. In contrast, the teacher in the right hand column has described a strategy she uses to learn and notes that this has positive outcomes for her students. Vocabulary is a fundamental building block of learning a discipline, and this teacher recognizes it is important to not only learn terminology, but to use it correctly with her students.	
Collaboration Subtheme: Benefits of co-teaching for Students	
Teacher recognizes and describes the benefits of a co-taught learning context for students.	
<i>co teaching enables more individualized instruction and personal interactions</i>	<i>...you don't go to the bank/and this is only math. When you write a check you're using all kinds of things to write a check. You need a little math, you need a little reading.</i>
The teacher in the right hand column notes that co-teaching enables instructors to cross disciplinary boundaries, which leads students to better apply concepts learned in real life contexts. The teacher in the left hand column describes another benefit: reducing the teacher/student ratio. While this is important, it does not necessarily foster interdisciplinary learning.	
Collaboration Subtheme: Teacher Growth	
Teacher states he/she learned from the collaboration, and/or specifically describes what was learned.	
<i>...he tried to get the kids involved to critique, and then he critiqued, and of course I would talk to him about what happened.</i>	<i>It really encourages me as a teacher to know that similar connections could most likely be made with other disciplines, such as technology, science, music and more.</i>
The first teacher's comment depicts a mentor/mentee relationship between he and the teaching artist. This is helpful for the teaching artist, yet the teacher does not describe his own potential for learning. The other teacher takes on a learning perspective. He realizes that if connections between disciplines were made in the IB-TAP curriculum, they could be made for other subjects as well.	

Collaboration Subthemes

CASE STUDIES OF COLLABORATION: CO-TEACHING

In the next section, four teachers approaches to co-teaching will be described.



(Emerging)

(Excelling)

Division of Labor:	Teacher as learner:	Dialogic planners:	Equality:
Teachers turn classroom over to teaching artists	Teachers hand over teaching and become active observers and learners of their students and of arts integration	Teachers and teaching artists plan during co-teaching on behalf of improving the curriculum for students	Teachers and teaching artists flexibly share roles and content focus.

DOUGLAS: Equality of roles leads to synergistic connections between art and humanities

Douglas believes that the benefits of having another teacher in the classroom are immeasurable. As he cogently states: *you can't even explain in words how much of a difference that makes. Being able to give kids more individualized attention and an extra body to walk around and have those kind of personal interactions was some fun.* He also maintained that opportunities presented themselves that *wouldn't have happened if I would have had to have 30 kids in a group.*

Douglas arrived at the “elegant fit” of a balanced art and academic curriculum unit through discussion with his teaching artist. This became the foundation for their unit: *So J and I decided she has a cool background in photography, so we kind of put two and two together and the Civil War was the first war that was ever photographed, so all these photos you see of battlefields, no one had ever seen that before.*

Douglas described a rich co-teaching classroom context: *So C (the teaching artist) and I came up with the unit question. On the first day, we shared that with the kids. We talked about what it meant. We kind of gave them little suspenseful details about what they would maybe do or experience.* Douglas’ description reveals that he and his teaching artist created a cohesive partnership in which both teachers share the stage. There was not a division of labor. Rather, Douglas and C take on equal and flexible roles.

Douglas and his teaching artist learned important lessons together: *From collaborating with J we definitely helped open each other's eyes to the limitless connections of art and history. Being able to shoot ideas off one another and collaborate to create such a unique project was definitely a powerful experience. It really encourages me as a teacher to*

know that similar connections could most likely be made with other disciplines, such as technology, science, music, and many more.

Douglas' comments reveal that professional learning is an ongoing outcome of strong partnerships. Douglas' collegiality, receptiveness and flexibility will support his continued professional learning and possibilities for integrating the arts on a larger scale.

ELIZE: Flexible Planning and a Dialogic Classroom Culture

Elize did not have an easy start collaborating in the IB-TAP program, but she reported much growth in this area. For example, she described that their curriculum planning became more efficient and generative: *Well, this year it worked out really well. Last year I had never done it before, so I wasn't really sure what to expect. But this year we picked a unit kind of together, and our planning was a lot more direct, and we were able to get through what we wanted to get done, the concepts we wanted to cover, and I think while we talked to each other, the wheels were turning with both of us. We were coming up with ideas on how to get this point across and how to get the math concepts through with the artwork.* Elize and her teaching artist actively grappled with arts integration. They not only explored scope and sequence, but how to employ the power of the arts to make content accessible for students.

Elize attributes learning about art through the process of planning. *M started out by educating me with the artists, and the idea that she came up with when I talked about scale, and how that fit with the artists. I think that's where the connection was, and that's where it was a little bit different, because I was learning as students learned, I learned just before them about the artists and the work that the artists did, and I saw the scale drawings, the actual scale drawings.* Elize achieved a long standing professional goal: *I have always tried to implement "art" in my units, but working with M gave me a better idea of the right way to do it.*

Elize and her teaching artist's relationship consistently grew. As a result, their planning became an ongoing process in the midst of lessons. *Often we independently recognized that we need to include something or redirect the lesson. Planning was often simply a conversation in which we agreed on what was needed, discussed ideas on how to do it, and determined the course of action to take.*

Elize developed a co-teaching strategy that worked for her particular situation. *I have more of an idea of the working relationship with M, and what she gets out of it. I don't know that jamming the math in before is any better than giving them a little preview and then intertwining it through the lesson, and I think that works really well. M will stop so I can explain something, I'll stop so she can explain something. So I think that's an important part of putting it together*

Dialogue became a feature of Elize's classroom through her recurrent co-teaching practices. *There was more, I think, this year more teaching...my teaching interspersed with her teaching. So she would say something and then I would chime in with a math procedure or idea. The students witnessed successful collaboration between the teacher and the visiting artist. Instruction would often transcend to dialogue. Student questions were freely answered by either of us, and we learned from each other.*

As Elize and M's relationship grew from their co-teaching methods, they also became better at balancing both content areas: *We scheduled a planning session after a few lessons. Both of us saw the need to incorporate more mathematical concepts in the unit. Just being more aware of this need drove us to ask mathematical questions during the course of the lessons. We asked students how to determine the number of bags needed for their section of the fence if three bags created a two-foot braid. Students used proportions. When planning for wrapping the desks, students determined surface area. Having the discussion about including math concepts was all it took to pause during the activities and do some math.*

Elize's case provides a compelling picture of teacher transformation. Both co-teaching and artistic practices were challenging for her, yet she was goal oriented and, like Douglas, receptive. As her partnership deepened, she strengthened her interdisciplinary curriculum. Through her relationships with her teaching artists, the culture of her classroom had changed as well. Dialogic interchanges between teacher and artist were frequent, and students' voices became a valued instructional resource.

SCOTT: Learning from artists

Scott's collaboration with both teaching artists also improved with each successive year. *We were planning last year, but this year was just obviously better. He attributed the artists' willingness to maintain a dual focus on arts and academic content as giving him the freedom to stand back and learn from them: J and M were challenging me. Instead of me being in the driver seat last year, it was nice being in the passenger seat this year....both of them owned it from an artistic standpoint and also kept the mathematical piece in mind. It was more efficient because I was learning from them.*

This team did face some challenges integrating improvisation with math class, particularly *trying to scale it down for children. That was the tough thing.* However, Scott described benefits of the partnership between himself and the teaching artists. *It was a shared, for lack of a better term, power in the class, but the kids saw a relationship that we knew what we were doing, that we were well planned this year. Then I think the children saw us play together in front of each other and act goofy and embarrass one another and then just how much fun we had with it. I think that kind of helped break the ice with the kids with one class and even for the other.* Scott's students witnessed a strong but playful relationship between their teacher and the teaching artists, providing them with models of how to be prepared for learning. It also helped students to unleash their creativity at an age when conformity can constrain learning opportunities.

Scott appreciated the opportunities to learn from the partnership. He also realized that his collaboration with the teaching artists brought some new life into his classroom that challenged the classroom status quo. This was beneficial for his students.

ARTURS: Division of Labor vs. Co Teaching

Arturs and his teaching artists became more effective planners over time. However, the planning only reinforced a division of labor between Arturs and his teaching artist. As he details, *I think last year, since we were new to this, it was like we were planning as we went along, and this year we planned at the start. We got together I think maybe two weeks before we started, really early on, I think, on a Monday morning, and we planned out what we wanted to do. But the planning part itself I think was pretty easy because again, like with K, we got together and in one afternoon pretty much laid out what we wanted to do.*

And we did kind of the same unit that we did last year, we just tweaked it a little bit, and it worked out a little bit better this time because we already had an idea of what we wanted to do. He's a performance artist. This is what he does. And I gave him the aspects of what he needed to know for the science part of it. We started brainstorming what could we do, how can we do this better, how big should the groups be. Should we limit the groups to maybe just six? Should we begin with at least three kids? And so we planned from that aspect, how to create the groups and what was our plan.

Arturs shares his lesson plans so that the teaching artists can keep academics in mind while teaching the IB-TAP unit: *Most of the stuff that we did together was like a Prezi that she was able to get together, and so I was able to go on there and put down my lessons, like the concepts I was trying to teach them that day, and then she was able to add within the classroom or in the classroom. She would ask them questions, like a KWL chart, like what do you know.*

For Arturs, co-planning does not necessarily result in co-teaching. He describes a division of labor with each teacher retaining a focus on their own content. *I gave him a book. He took the book home and he studied it so he had an idea of what the systems were all about. But I gave him full range to do whatever he needed to do. And he starts off with the fun and games, which I think is really a good idea, because it gets the kids excited and motivated, and then we go into the actual performances. When he's there I let him take over, take the class. He doesn't come in every day. He comes in every other day, or sometimes maybe once a week, and that gives me time to work on some of the concepts the kids have to learn.*

With teaching artists present, Arturs became the documentarian. *I would either take pictures or I would take the iPod out and take pictures of them, you know, an iPad and take pictures of them, or the video of it.*

Following lessons, Arturs would critique the teaching artist's instruction. *He would go ahead and critique. And plus he had the class also critique. He would say what did you think about this. And like he said, be nice because you're all gonna get up there and act, but he tried to get the kids involved to critique. and of course I would talk to him about what happened.*

Arturs described that his team teaching depended on the artist and the unit: *Yeah, it depends on the project that you pick. It depends on what is the end game, what you want the kids to get out of it. So it's interesting, with M I would teach the science part of it, and then she would, would put the information (in the organizer), and they could ask me questions, and then M would go ahead and show the images, and then they would look at that and get the perspective and be able to, like, ask questions to her, and we would go back and forth, you know, team teaching. I think I can say that that probably worked out the best between her and I.*

And with K, I kind of like move back and let him do his thing, and I talk separately from him...But I would say probably the majority of the classes I'm actually working in front of a camera, So I more or less taught separate, my concepts and my content, and he taught his acting skills and what he was hoping to get from them.

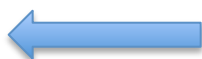
There was a division of labor between Arturs' and his teaching artists, characterized with very defined boundaries and roles. However, he recognized the benefits of an integrated curriculum for his students: *the kids make a connection. You know, they're able to say, hey, this makes sense to what we're doing in reading or what we're doing in science.*

Arturs collaborative practices were not optimal, and they were not in the spirit of the IB-TAP program. He was more tentative towards arts integration methodology and less willing to let-go of his routine teaching practices. He did not easily translate concepts taken from professional development workshops to his classroom. As a result, his professional transformation was minimal.

Variable 2: Arts Integration

Through their collaboration, IB-TAP teachers and teaching artists find a balance between the arts and academic content areas. Teaching artists report that at the very least, they want their teachers to *not be afraid* of exploring the arts. Their ultimate goal is for the teachers to develop confidence with a variety of creative processes, and a level of independence to do so when the teaching artists are not present in the classroom.

The table below explains ranges in teachers' confidence levels, and their strategies for modifying the curriculum to provide greater opportunities for creativity.



(Emerging

Excelling)

Arts Integration Subtheme: Confidence and Independence Classroom teacher reports feeling confident about integrating the arts and creative processes	
<i>I think that's the one thing they got out of it to go on stage, to perform, to be in front of a camera. And we were in front of a camera. I mean, we used our video recorders to record when it happened. And I just have to figure out how to burn that onto a disk and we'll be okay.</i>	<i>I learned a lot about the mathematical piece within art this year and I carried that over.</i>
In the left hand column the teachers describes a learning challenge that could be a barrier to incorporating media in the curriculum. The column in the right hand column describes a teacher who has incorporated that into his curriculum.	
Arts Integration Subtheme: Modifying Curriculum Teacher describes whether and how curriculum was modified to better balance the arts and academic content areas	
<i>They all have their own ability. They all have their own ideas on what they want to do when they grow up. And so maybe you get them involved in something like this (arts integration), maybe that will stimulate them and motivate them to maybe work a little bit harder.</i>	<i>I think they did make the connection. I think that they got the concept, the idea about changing scale. But that takes a lot of practice, and more drilling. Would have to give them more situations where they would use it. I think that's where it might have helped to have the traditional math more.</i>
In the left hand column, the teacher maintains that arts integration might benefit his students in terms of their motivation, but does not describe how he will incorporate creative processes in the curriculum. The comment on the right hand side provides ideas for improving the arts integrated curriculum in the future.	

Arts Integration Subthemes

Case Studies of Arts Integration

Each of the teachers discussed unique perspectives of arts integrated units of instruction that exemplified their differing approaches or access points for implementing their units.

Elize felt that an arts integrated curriculum provides students with authentic learning experiences. She stated: *I think it allows the students to see the actual result of using the math, and the purpose for math. Even not just with the scale drawing itself, but they had to compute how many bags we needed. They had to project for how many students in a group, and how many feet of fence were you responsible for, so they had a lot of other math. They had to do conversions from feet to inches, so there was a lot of other math in between where they actually needed the answer in order to proceed with their project. So I think that made them more conscious of getting an answer that made sense, an answer that they could actually use, not just an answer on a piece of paper with a problem. So I think that's where the connection was valuable, because they needed this information to*

proceed with their own project. For Elize, a math curriculum integrated with the arts is project oriented where students have a “need to know”. They must gather and use information in order to complete their artistic products.

In Douglas’ classroom, arts integrated projects must be goal oriented and provide students with purpose and participation structures. The arts integrated classroom is *a predictable environment where things are consistently they’re forced to be productive. And maybe “forced” isn’t the right word, but the culture is set that you’re here for a reason. This isn’t a babysitting period. There’s a goal for the day, and that’s why I try to start every class by saying, “This is our goal for today.” It just establishes meaning for the class period. It gives them something to kind of work towards. But I would say there’s generally always gonna be instructions or tips, like in the large group, establishing that at the start of every class, even if it is going outside, establishing a rule that you have to be X amount of feet away from people. It’s now your responsibility to do that. So I think starting off the class with very clear well explained, what’s the goal. What is your job today? And if you do a good job of in an engaging way getting them interested in doing it, they’ll do it. They won’t get off task. They won’t get lazy.*

Scott searches for the aesthetic aspects of a math curriculum, and helps his students strengthen the quality of those skills. *I learned a lot about the mathematical piece within art this year and I carried that over.* He emphasized *Measuring, just simply using the tools, measuring, acting precise. Being exact when you measure something. Knowing how to use the tools correctly. Making keys. Just the artistic value that you can place on anything from a daily standpoint in math.*


Arturs did not attempt to explain connections between art and science. Rather, he identifies for his students how science impacts their lives, and looks for artistic experiences that they are familiar with. He stated: *Right now we’re learning about the nervous system, and one of the first things I talked about is how there’s so many disorders and diseases of the nervous system, and things that we take for granted...But it’s all related to science, understanding how science affects your everyday life. And with the arts that we did here, I mean, every student has seen a movie, every student has watched TV, every student knows that there’s a story and a plot line, and just to compare the two, and make them actors. I think that’s the one thing they got out of it to go on stage, to perform, to be in front of a camera.*

Each teacher found “a fit” between his or her own instructional beliefs and practices and the collaborative arts integrated units they implemented in the IB-TAP Program. Through IB-TAP Elize implemented project-based learning. Douglas’ activities occurred inside and outside the classroom walls, and through explicitly stated goals, he helped his students stay on task. Scott articulated the aesthetic aspects of the math curriculum for his students so that they could be accurate, like mathematicians. The arts aspects of Arturs curriculum was an “add on” to his science content, not truly integrated. However,

he did support his students' engagement in the arts, and believed it was important for them to have familiarity with the arts they would be practicing.



Variable 3: Documentation

Teachers and students documented their inquiry questions, their plans for the curriculum as well as artifacts to be produced, the creative processes implemented, and what they each learned. Four codes related to documentation emerged from the data sources. The table below provides the Documentation subthemes along with definitions and representative exemplars depicting ranges in teachers' comments related to each.

	
(Emerging)	(Excelling)
Documentation Subtheme: Media Resources	
A catalogue of the types of media resources that the teacher uses to document units in their T-AIDW's:	
Text only	Video, images and text used to exemplify various aspects of units and student engagement, including planning documents and instructional materials. Teacher uses student artifacts to reflect, describe learning, and make future curriculum adaptations.
There was quite a range in documentation. Some teachers only used text to respond to the various question prompts provided for them. Others used a wide range of media in order to comment on the questions, but to also provide various curriculum artifacts and ideas for curriculum refinements.	
Documentation Subtheme: Completeness	
Quantitative: The number of completed documentation templates year by year. Teachers complete 2 units per year, so each teacher should have a total of 6 units documented.	
One unit or less documented per year.	Four or more units documented over the three year implementation period
Documentation Subtheme: T-AIDW Portfolio Rubric Score	
Quantitative: Scores on T-AIDW Artifact Analysis Protocol	
Each t-AIDW was scored based upon the IB-TAP Artifact Analysis Likert Scale. Rankings were based upon averaged scores of both units (if both documented) or one unit per year.	
Documentation Subtheme: Students Using Documentation	
Teachers describe how students use their own S-AIDW's, or provide explanations of how students review and reflect on their own artifacts.	
<i>We didn't really have, like when you're doing a creative artist art project and you have the first drawing, the first draft or the second draft, you have those artifacts to go back to and say "okay, this is where my kids started, and this is where we are, this is where we ended up.</i>	<i>Within the journal responses throughout the unit, self-evaluation typically took place. Students honestly praised their own successes and just as easily admitted what did not turn out well.</i>
The teacher in the left hand column appears to understand how documentation impacts the creative process, but honestly reports this process was not implemented in the classroom. The teacher in the right hand column does describe students' documentation processes. The students reflected on and appraised their work.	

Documentation Subthemes

CASE STUDIES OF DOCUMENTATION: USE OF MEDIA RESOURCES

			
(Emerging)		Excelling)	
Text Only Aspects of the curriculum are described using text only	Text and Images Texts describes curriculum and images depict students engaged in curriculum activities	Text, Images and Video Multiple media is used to describe the curriculum and provide evidence of student engagement in creative processes	Text, Images, Video, Attachments Multiple media describes the curriculum, provides artifacts such as planning documents, and incorporates student reaction and thoughts.

The richness and purposefulness of documentation can be analyzed by identifying *what* types of media teachers use to document the curriculum. Also important to note is *how* this multimedia functions. For example, multimedia artifacts can

- Describe the scope and sequence of the curriculum.
- Provide examples of instructional materials used to facilitate student engagement and learning.
- Note the significance of images or artifacts related to teacher transformation or student learning.
- Portray a teacher's own growth or that of her students.
- Identify curriculum modifications and highlight the data used to inform instructional decisions.

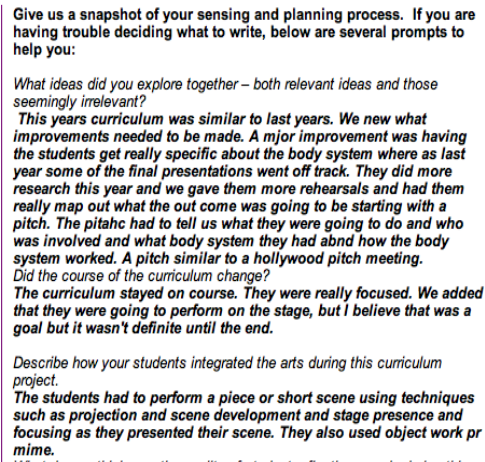
The following case study examples show the wide range of teachers' documentation approaches.

Arturs: Documenting the Curriculum through Text

Arturs reasoned that documentation helps students to learn because it offers them concrete evidence. The artifacts they produce help them to remember their experiences. *I think it's important to document just because of the fact...if they have something in front of them, they can go ahead and refer to it, and it brings back the recollection of what they did.* He noted that documentation is important at this developmental stage in his students' lives: *I know, being a 13-year-old once, that so much happens in your life that something like this seems like it may have happened two or three years ago, just because of the fact that so much does happen in their lives. So I think if we document more, keep it in there, they could just pull it out right now and be able to show it to you, you know.*

Arturs did not document his own teaching practice. In his mind, documentation is for the students: *We took pictures. That's how we documented what they did.*

Arturs and his teaching artists completed 4 out of 6 teacher AIDW portfolios over the course of the three years. Text was the predominant media resource used to provide a running account of the curriculum, as depicted in the image below.



Give us a snapshot of your sensing and planning process. If you are having trouble deciding what to write, below are several prompts to help you:

What ideas did you explore together – both relevant ideas and those seemingly irrelevant?

This years curriculum was similar to last years. We new what improvements needed to be made. A mior improvement was having the students get really specific about the body system where as last year some of the final presentations went off track. They did more research this year and we gave them more rehearsals and had them really map out what the out come was going to be starting with a pitch. The pitahc had to tell us what they were going to do and who was involved and what body system they had abnd how the body system worked. A pitch similar to a hollywood pitch meeting. Did the course of the curriculum change?

The curriculum stayed on course. They were really focused. We added that they were going to perform on the stage, but I believe that was a goal but it wasn't definite until the end.

Describe how your students integrated the arts during this curriculum project.

The students had to perform a piece or short scene using techniques such as projection and scene development and stage presence and focusing as they presented their scene. They also used object work pr mime.

Image of Text Only

Arturs did not offer his reflections or artifacts in his AIDW Portfolio during the first year. Rather, his teaching artists' took ownership of the documentation. At each point along the way, the teaching artists responded to the prompts provided on the IB-TAP portfolios. *MA(Teaching Artist): Given our discussions on "The Guidelines to Better Photographic Composition" and subjects that show visible change, students chose 3 photos that they'd taken which best demonstrated Simplicity, Rule of Thirds, and Lines as well as change over time of a certain subject* (Artifact selection, Year 1 AIDW Portfolio. On the second curriculum project, the teaching artist commented: *I enjoyed working with Mr. A (Arturs) on my first science unit mostly because we were both open to the experience and each other's ideas. I was a little intimidated because I had never incorporated theatre with*

science. In the future there will probably be more planning time. Schedules are challenging on both parts. We worked with them the best we could. I think spending more time reflecting. Initially, it was consistent but that lost steam as we got down to the wire(Artifact Selection, Year 1 AIDW Portfolio).

By the second and third years, Arturs joined in the completion of his AIDW portfolio. The following comment clearly indicates Arturs' authorship and the coordination between the content areas: *Each group had the opportunity to practice and perform in front of their peers several times during the course of the project. K (teaching artist) gave each group direction, praise, and critique on the acting techniques that would improve their project. Also clarification or correction on the science content was given and received. The students provided feedback to each other and wrote reflections throughout the process.*

His reflections, however, were often superficial rather than deeply descriptive or reflective. For example, when asked to describe how his students integrated the arts during this curriculum project, Arturs responded: *Students had to act and practice the techniques that make plays interesting and understandable.* In this comment, little detail is given, nor is there any discussion of connections between the arts and academics such as how the arts reinforces or enriches the academic content area. When asked what approaches were used to help students apply skills and concepts from one subject matter to another, Arturs listed: *Theatre exercises. Ensemble exercises or exercise that made them work in groups. Some discussion and lecture. Lots of movement.* Not much discussion of how these activities facilitate interdisciplinary engagement was offered.

Arturs did not analyze student artifacts in order to assess the curriculum or student learning. For example, when asked to reflect on the success of the IB-TAP curriculum and provide student artifacts showing evidence, Arturs responded: *I think the IB-TAP curriculum is fantastic. The students look forward to collaborating with the teaching artist and with each other. I like how easily they learn how to use technology to create and improve their project. The DVD's they created is proof of how much they enjoyed working together.* In this example, Arturs did not discuss what specific aspects of the student DVD's provided evidence of their enjoyment, nor did he indicate how this impacted student learning outcomes.

Elize: Text and Images Portray Student Engagement

Elize's use of documentation grew during her three years in the program. During the first year only of two projects was documented and only text was used. During the second and third years Elize began to integrate images and text in order to narrate the curriculum and exemplify how students collaborated to problem solve and create materials. In the image below, Elize writes about the project activity and shows students in the midst of planning:

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Inquiry	Sense and Plan	Create	Evaluate	Reflect
<p>During the week before the project was to begin, lessons and activities were based on ratios, rates, proportions, scale drawings and scale factors. Students practiced skills, but had little authentic connection to these concepts. After an informal survey of the class it was determined that the majority had never used a map to help navigate a trip or outing.</p> <p>The students began to see a purpose behind the math skills when they created a technical drawing of their desks. They were excited to create a scale drawing of their desk on grid paper actually used by architects. One student commented that it was almost the same as Christo's work. While the process was difficult and complicated for many of the students, we provided individual or small group instruction and the students helped each other. Before the session was over, all of the students had produced a correct scale drawing.</p> <p>On the day the students wrapped their desks, they arrived with a vision, but they were challenged to see if they could keep the slippery covering from sliding using twine to hold it up. Group members could be observed standing back, doing a self-assessment, collaborating, and redirecting their efforts. When the groups did a gallery walk to view the installations of the other groups, they were surprised at how different each group met the challenge of using the materials, and they became aware of how unique their group's design was.</p>				
				

Image depicting alignment between text and images

Elize aptly described how students' lack of connection to math skills such as scale and proportion changed as they were given an authentic task: *The students began to see a purpose behind the math skills when they created a technical drawing of their desks. They were excited to create a scale drawing of their desk on grid paper actually used by architects. Before the session was over, all of the students had produced a correct scale drawing.* The image below captures students using authentic tools in order to complete this part of their project:

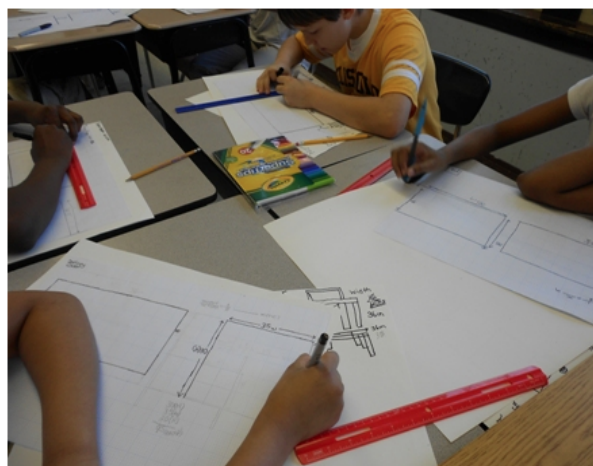


Image depicting students creating scale drawings

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Elize's documentation *coherently* integrated images and text, as she purposefully chooses images that mirror her reflections. The textual and pictorial resources she integrates work together to depict the creative processes students engaged in, their collaboration, and the sequence of curriculum activities they experienced.

Scott: Incorporating the full range of resources to provide evidence of student learning outcomes

Initially, Scott did not document his curriculum. As he noted: *We did not do a good job of that going into this, utilizing it to its full potential.* He was appreciative when others helped him to document: *J and I were so hands-on that whenever K (IB Coordinator) was in the room she was helping us out with pictures. That was the only time we really got good feedback with that.* Through this assistance Scott understood that documentation was a source of feedback about the successes and challenges of the curriculum.

Scott and his teaching artists completed two out of six AIDW portfolios during the IB-TAP program. In Year 1, his teaching artist took responsibility for completing a portfolio that incorporated images and text in order to describe the curriculum. No evaluation or reflections on the curriculum were provided. During Year 2, no documentation was completed. During Year 3, one AIDW portfolio was completed. This portfolio contained multiple resources, including images, text and video, as depicted below:

**JESSICA HUDSON- CAPE
Performance Teaching
Artist**

The video clip to the right captures a lot of the successes in our work this year...

- Listening and Responding. This group is an example of what was successful about this residency this year. The students are actually listening to each other, and responding. They are building together spontaneously. They are trusting each other. It is clear in this video clip. Chris and I witnessed this throughout the residency. The classroom became a space of trust and growth. They thrived within the framework we provided.

- Chris Weber is participating with the students in this clip. He is a part of the improv team- no greater, no less valuable than the other members of his team. This work has the potential to allow students to witness their teacher from a new perspective. In this residency, Chris is still their teacher- but he is also an expert (He has taken improv classes here in the city for several years.), an ensemble member, a coach. In this structured space of performing improvisation on stage, the teacher/student hierarchy is dropped and all are peers and working together towards a goal that they can only accomplish if they work together.



CHRIS WEBER- 7th Grade Math Teacher, Smyth School

What do you think was successful about the collaboration between you and the teaching artist? What could have been improved?

Our trust in each other was the best asset of all. We knew when take over while modeling a lesson and when to be in the audience. We worked extremely well at exploiting each others strengths and constantly pushing on each other to think *different* about our delivery of instruction. We

Image depicting use of multimedia, including text, video and images.

This image above displays a video of Scott teaching a lesson on the connections between improvisation and the mathematical order of operations. As he states in the video: *in improv, you have to do one thing before the other, like order of operations* (in math). He continues to make connections such as these explicit for the students, helping them to apply skills across theatre and math.

Scott attached many planning documents within his AIDW Portfolio. These documents: showcased the approaches that helped students reflect on their interactions; the content of the curriculum; and connections between content areas. The box below displays the final reflections that students were asked to complete.

VOCABULARY
Improvisation:
SHORT ANSWER
“Yes and...” is the #1 rule of improvisation. What do we mean by “Yes, and...”?

OPINIONS & THOUGHTFUL RESPONSES:

1. What was your role in the sharing last week? _____
Were you successful? Why or why not?
2. What was the best part of the sharing last week? Why?
3. What connections do you see between math and theatre improvisation?

Final Student Reflection

Scott and his teaching artist effectively used artifacts as evidence for their reflections. For example, in the image below, text is used to describe something important happening in the video: *students are listening to each other and responding. They are trusting each other*. Scott and his teaching artist were beginning to use documentation for a very important purpose: to provide concrete evidence of student learning outcomes.

DOUGLAS: Multiple media for Multiple Purposes

In his two years as an IB-TAP participant, Douglas and his teaching artists completed four out of four AIDW portfolios. As depicted in the images below, Douglas incorporates many types of media resources, including images, video, text and attachments.

Mr. Parker and I had performed this project, following the Footsteps of Lewis and Clark, the year before. We decided to keep our original concept - creating art and documentation similar to the Meriwether Lewis' journals sent to Thomas Jefferson about the Northwest Territory. Mr. Parker and I learned from the previous year, and updated our syllabus to better instruct our students. We continued to emphasize the Physical, Political, and Social observations that Lewis and Clark made on their journey. However this year, we were able to better apply the lessons to our students own journeys and lives. Each student reflected more about their own environments and recognized Physical, Political, and Social cues in their neighborhoods and surrounding environments.

The previous year, Mr. Parker and I found exposure to our students and the amount of art-making time was limited. I found that at the end of one period, students creative juices had started flowing. This year, Mr. Parker and I gained special permission to work with the students for two periods in a row. This gave us the opportunity to instruct students and give them time to create... without feeling rushed.

The students had studied Lewis and Clark prior to the artist's (Mr. Sweets) arrival. Our project began with reviewing the syllabus that Mr. Parker and I created for our Lewis and Clark project. We reviewed the expectations we had for the students and allowed students to respond to important quotes included in the syllabus. [2012_syllabus.pdf](#)



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Students began to take ownership of the project when they truly understood that the Civil War was an incredibly important, relevant, and powerful event that has affected all of our lives today. The ideas of unity, freedom, and equality are all ideas that are near and dear to our hearts today, and learning to respect those that sacrificed their lives to secure these things is a learning experience that is not easily forgotten. When the students selected a photo and began to recreate it, they learned to respect those that lost their lives in the actual conflict.

When did they start to critique and accept criticism?

The students immediately began to critique one another and accept criticism when they began to recreate the photos. Many had to collaborate and work together to solve the problem(s) of how to recreate a cannon, tent, or background that was not naturally there! They were creative and solved problems together.

"Ye Olde Cyanotype Exposure and Developing Day Outside" video!

Individually selecting the image from the National Archives. Deciding as a group which image to recreate.

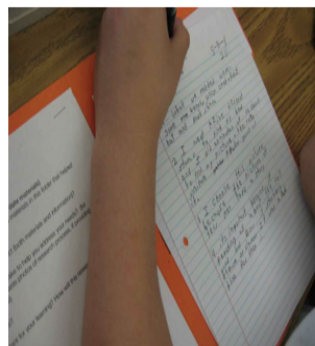


Image showing multiple resources, including an attachment of a video showing students creating their photos

Douglas carefully annotates his photographs, enhancing the meaning that others can make of the documentation, making it a resource for others wishing to better understand or implement a curriculum such as this one.



Individually selecting the image from the National Archives. Deciding as a group which image to recreate.



Image showing annotated pictures

Documentation was an important IB-TAP activity, emphasized in professional development workshops and during the implementation of arts integrated units. Most teachers complied with IB-TAP requirements. For example, Arturs used text to respond to questions raised in the AIDW portfolios. Other teachers went beyond compliance and, like Elize, showcased aspects of the curriculum, learning materials and students engaged in purposeful activity. Others, such as Scott, documented student-learning outcomes such as trust in peers.

Variable 4: Reflection

Teachers and students were encouraged to reflect on their units as well as their learning throughout the IB-TAP curriculum. Teachers received professional development to learn strategies for systematically analyzing artifacts in order to refine their curriculum and capture evidence of student learning.

Three themes related to reflection were prominent in the data. These are depicted below.

	
(Emerging)	(Excelling)
Reflection Subtheme: Reflecting on practice Teachers reflect on their evolving instructional practices within the IB-TAP Units.	
<i>I think when we started seeing the kids put their plays together, when we started, like, afterwards, when the kids would leave, we would sit down and we would interject what we thought, how this group did, were they putting enough science into it or, from my point of view, or were they just not acting?</i>	<i>it opens your eyes to the fact that more creative instruction and more hands-on things, and I know that's kinda a cliché teacher answer, but it's true that if you get too stuck in your ways of knowledge, writing, reading first, which is the norm and that does need to be established before the other things, but it really shows how much the kids take away in the engagement and just the experience.</i>
Not all IB-TAP teachers provided reflections on their own practice. The comment in the left-hand column provides a vignette of how a teacher and teaching artist reflected together to better balance the curriculum. In the right hand column, a teacher describes a change in his own beliefs about teaching. Having reflected on his experience, his eyes became opened and he realized that one needn't teach facts first. Rather, creativity and hands-on experiences can be incorporated at all stages of curriculum delivery. He also noted beneficial student outcomes through this approach, such as greater student engagement.	
Reflection Subtheme: Completeness Quantitative: Scores on Reflection section of T-AIDW Artifact Analysis Protocol.	
No reflections provided. Documentation only describes the unfolding curriculum.	Reflections are explicitly integrated throughout the AIDW portfolio
Reflection Subtheme: Student Reflection Teachers incorporate and document opportunities they create for students to reflect on their own and their peers' work.	
<i>In addition to sharing these reflections orally, the students wrote their reflections on the process of</i>	<i>The post-video survey developed by the artist allowed students to self-assess and compare with</i>

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<i>creating this project.</i>	<i>pre-video data. This was a visual example for students and teachers to see their growth and confidence with the new medium.</i>
The comment in the left hand column provides a generic description of how students were encouraged to reflect during the curriculum. The comment in the right hand column describes a systematic strategy used to foster deeper reflection for both teachers and students	

Reflection Subtheme

Reflection on Teacher Change: Examples from the CASE STUDIES

For teachers, reflection helps them raise important questions such as “how are my students involved?” and “why did this activity work or not work”? It also prompts them to better understand what they are learning, how they are growing as professionals and how they are transforming as teachers. Reflection is a powerful strategy that teachers can employ to direct their own professional development. This occurred for many IB-TAP teachers.

Douglas’ experiences in IB-TAP enabled him to rethink some of his assumptions about teaching. Following his IB-TAP experiences, he believed that creativity and academic instruction are mutually supportive. He provided evidence of the benefits of creativity on his students: *listening to the kids’ reflections, the engagement is so much higher.*

Elize learned more about what types of learning activities her students preferred. As she stated: *I thought they...I was surprised at how much they enjoyed the fence wrapping. I didn’t realize that that was so important to them or so creative to them, but I can see that that part of the project is something that they really enjoyed.*

Scott realized that reflection is an important instructional activity for his students: *you could see a lot of the light bulbs going off in their heads when they read through their own journals, if you will. That’s what we need more of.*

Through reflection, these teachers gained new perspectives about their students. They saw students’ increased engagement in the curriculum and ownership of their creations. What students felt were important aspects of the curriculum surprised them. They found evidence of students achieving in areas that they had not seen before.

V. Findings and Conclusions

Findings

IB-TAP provided novel experiences for teachers and was conducive to their professional growth. It partnered teachers with compassionate and invested teaching artists, provided professional support, and offered flexible strategies for incorporating creative practices within academic units. Specific findings are discussed below.

Collaboration

- IB-TAP teachers better understood teaching artists' roles. This increased their abilities to co-teach.
- Collaborative planning became an ongoing process. Teachers and teaching artists more flexibly planned the curriculum with one another, both in and outside of the classroom.
- Collaborative instruction and co-teaching increased. IB-TAP teachers took on more responsibility when teaching artists were present and co teaching became a routine feature of classroom instruction.
- Teachers developed useful strategies for collaborating with teaching artists and could describe these to others.
- IB-TAP teachers were better able to envision the curriculum and could therefore better incorporate their academic content areas
- Dialogic practices became more prevalent in classrooms as teachers became more experienced co-teaching. Teachers discussed ideas in front of students, helped one another to clarify concepts being presented to students, and raised questions between one another to make topics more explicit for their students. They also encouraged students to raise questions as well, and these questions became important topics for discussion.

Arts Integration

- In year three, teachers had established an understanding of arts integration. They reported ideas about how the arts can reinforce academic concepts.
- Through arts integration, IB-TAP teachers developed ideas about how to integrate curriculum and how to connect learning activities to their students' lives.
- Teachers increasingly developed greater confidence in their students and encouraged them to take greater control over their artistic creations.
- Teachers provided more opportunities for student self and peer critique during lessons.
- While increases were not statistically significant, teachers were observed using artistic vocabulary and art skills while teaching their units.
- During Year 3 interviews, teachers reported confidence in implementing future arts integrated curriculum based upon their experiences in IB-TAP.
- Teachers realized that arts integrated curriculum facilitates a more student-centered curriculum. Arts integrated experiences offer students "hands-on" experiences and opportunities for them to take control of learning activities,

opportunities for self-expression. Teachers also noted increases in students' confidence.

- Teachers developed insights about “creative teaching” and sought connections between the artistic processes they were learning and their own academic content.

Documentation

- Teachers provided a narrative of the IB-TAP units through their documentation. During years 1 and 2, teachers' use of documentation did not evolve. They were not using documentation to reflect on the curriculum or to assess student learning.
- During Year 3, teachers began to use their documentation to reflect on their experiences and to describe what students were learning.
- During Year 3, teachers were providing more opportunities within IB-TAP lessons for students to document their own work.
- Teachers increasingly used artifacts to document their students' growth during Year 3 of IB-TAP.

Reflection

- Upon entering IB-TAP, teachers informally engaged in reflection. For example, they would occasionally discuss student reactions to curricular activities during team meetings.
- During Years one and two, teachers were not systematically analyzing student work to better understand actual curricular outcomes.
- In Year 3, teachers made significant gains with respect to evaluation and reflection. They discussed insights related to their students' capabilities and the potential they saw in the student AIDW portfolios.
- In Year 3, teachers incorporated specific strategies and opportunities for students to reflect during instruction. Through these opportunities, students' voices became a more prevalent feature of classroom instruction.

Conclusions

Through their commitment to the IB-TAP Program and growing relationships with teaching artists, teachers acknowledged their own and their students growth.

The hallmark of teacher learning during Year One was in their collaboration. IB-TAP teachers' collaborative practices became increasingly effective as they learned how to co-teach. Their collaborations with teaching artists led to fresh approaches to teaching their own content areas. With a greater understanding of their teaching artists' creative processes and teaching methods, the IB-TAP teachers became more flexible and found teachable moments to incorporate academic concepts within the arts integrated units. Teachers also learned about artistic and creative processes. They found access points for applying creative processes in their teaching. For example, one teacher realized that artistic processes require precise use of tools, and he could apply this concept to the math curriculum.

Teachers applied arts integrated practices in their teaching. This became particularly solidified during Year Two of the program. Teachers described a range of *creative* teaching practices they developed including: documentation; reflection; and various student-grouping strategies. Teachers particularly appreciated the inquiry orientation of their IB-TAP units. Through this approach, they could “chunk” big ideas or essential understandings. Students were then more able to articulate, think about and discuss these big ideas with their peers. Teachers noted other positive outcomes of creative instructional processes for their students. Arts Integration provided their students with hands-on opportunities fostered their flexible thinking and enhanced students' conceptual understandings. Through arts integrated methodology, students had the potential to connect *what they read and what they experience* in creating art and performances. The arts integrated curriculum also expanded the *limited resources* available to teachers and students.

During Year Three of IB-TAP teachers documentation practices grew. Documenting their curriculum became a part of their practice. The teachers provided a greater variety of artifacts they selected in order to better capture the teaching and learning context. Their efforts to incorporate students' voices into their documentation also increased. They opened curricular spaces for their students to document their own art making process, and noted student benefits of doing so. Through process journals and reflection students were able to capture their learning and *make it their own*.

Teachers also made notable gains with respect to evaluation and reflection during Year Three. They were committed to capturing and analyzing student artifacts. This led them to appraise their students through new perspectives. In the process, they changed expectations for many underperforming students after realizing students' achievements made during the IB-TAP units. Teachers incorporated specific strategies and

opportunities for students to reflect. Through these opportunities, students' voices became a valued feature of classroom instruction.

Through their involvement in IB-TAP, teachers noted many instructional transformations. For example, the following classroom dynamics were noted:

- Classroom Culture of Contribution: Teachers emphasized a culture in which all students could contribute their ideas and skills
- Classroom Culture of Sharing: Through group strategies and artistic processes, teachers encouraged students to become resources of learning for one another. As students showcased their work to others, they explained academic concepts and artistic processes they had learned.
- Classroom Culture of Self-Direction: Through the IB-TAP Creative Cycle, students engaged in planning, creating and reflecting. The curriculum became increasingly dialogic and open-ended through this framework. The teachers noted students' increased involvement and autonomy, exemplified in this comment: *they were making their own problems up, so they were more invested in the actual process and the work and their outcome, which gave them more interest, versus me just saying, okay, here's a story, or here's the word problem. They seemed to be more invested in it.*

There are methods and strategies that CAPE could build upon to improve their arts partnerships in the future. It could be beneficial for CAPE to provide enhanced scaffolds and strategies for teachers to more systematically analyze student artifacts in order to refine their curriculum and to better assess student learning in arts integrated contexts. Through IB-TAP, CAPE has made progress incorporating teacher and student portfolio practices within their methodology. Taking it to this next step will help CAPE achieve even greater successes.

VII: References

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VIII. Appendices

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International Baccalaureate-Teaching Arts Project
Final Research Report

A. IB TAP Teacher Pre/Post Survey

**The International Baccalaureate-Teaching Arts Project (IB-TAP)
2010-2013**

**Chicago Arts Partnerships in Education
Chicago Public School IB Program**

IB-TAP Pre/Post Teacher Survey and Follow-up Interview Protocol

Notice that on this survey the scale goes from never true to always true. We know that no one is never true. Similarly, no one is always true. Everyone has varied responses, and you should be comfortable with your own varied response. Its extremely important to not give the same answer to every question.

Name: _____ School: _____
Subject Area you teach: _____ Grade: _____ Date: _____

I meet/discuss/talk with the IB coordinator at my school for ____ hours a week.

How many years have you been teaching? _____

How many years have you been at this school? _____

How many years have you been at "IB-certified" teacher? _____

In the past, I have attended CAPE professional development: ____ Yes ____ No

In this past year, I have planned interdisciplinary units with other teachers at my school
____ Yes ____ No

If you answered yes, please provide the following:

#____ units planned with teachers within my grade level

#____ units planned with teachers outside my grade level

#____ units planned with my arts teacher

Please note the following scale and for each item, circle the most appropriate number. Everyone has varied responses, and you should be comfortable with your own varied response. Its extremely important to not give the same answer to every question.

1= Not True

2= Decreasingly True

3=Somewhat True

4=Often True

5=Increasingly True

6=Always True

COLLABORATION	
1. On a regular basis, I find time to look across our curriculum to find strategies to deepen the student learning.	1 2 3 4 5 6
2. On a regular basis, I find time to look across curriculum plans to capture better evidence of student learning.	1 2 3 4 5 6
3. I find that planning curriculum with other teachers at my school is an effective approach to	1 2 3 4 5 6

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high quality integrated teaching and learning	
4. I find that working together with other teachers at my school on curriculum provides me with strategies to engage my students more deeply in their learning processes.	1 2 3 4 5 6
5. I find time to experiment and take risks while working with the teaching artist.	1 2 3 4 5 6
6. While an art specialist/teaching artist is in the classroom teaching, I more frequently contribute to classroom planning, co-teaching, documentation and assessment issues rather than only focusing on classroom management issues.	1 2 3 4 5 6
7. At planning meetings, teachers and art specialist/teaching artist increasingly take time to explore a wide range of interests and ideas about teaching and learning, even those that at first may seem unfamiliar, uncomfortable, or even irrelevant.	1 2 3 4 5 6
8. When the art specialist/teaching artist is in my classroom we challenge each other to investigate questions and exchange ideas and are able to model these behaviors for, and with, our students	1 2 3 4 5 6
9. At various stages in the unit, I increasingly make time to check-in with the art specialist/teaching artist and together, we reflect on our experience thus far and make changes as appropriate.	1 2 3 4 5 6
INTEGRATION	
10. The activities we design for our lessons in interdisciplinary units is well aligned with the investigative paths of inquiry we established at the beginning of our unit.	1 2 3 4 5 6
11. I have a thorough plan of how the arts and academic learning goals will reinforce each other, as well as how learning outcomes can be documented and assessed.	1 2 3 4 5 6
12. A primary goal of my teaching practices is to identify concepts and problem solving skills in subject-specific areas that can be applied to other subject areas, and to teach these concepts and skills explicitly for the purpose of transfer of learning among the subject areas.	1 2 3 4 5 6
13. In teaching, I identify concepts from subject-specific areas that can be related to and applied to students' real-life experience	1 2 3 4 5 6
14. As part of my teaching, I express ideas and texts in multiple modes of expression and/or representation (speaking, writing, sound, gestures, graphs, notations, movement).	1 2 3 4 5 6
15. I ask my students to represent their learning through different modes of expression and/or representation (speaking, writing, logical-mathematical, visual-spatial, interpersonal, kinesthetic)	1 2 3 4 5 6
16. Different learning processes (i.e. listen-perceive-describe, inquiry-analysis-discovery, investigate-design-evaluate, reflection, creativity, performance) are embedded and richly	1 2 3 4 5 6

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distributed throughout in my curriculum, teaching and evaluation practices.	
17. Our interdisciplinary units either intentionally or spontaneously incorporate multiple cultural and socioeconomic perspectives.	1 2 3 4 5 6
18. As part of my teaching, I regularly have my students collaborate in a variety of ways (small group, one on one, small group with leadership role assigned, selected/self-organized groups)	1 2 3 4 5 6
19. I have my students critique and give feedback for each other's work on a regular and ongoing basis.	1 2 3 4 5 6
20. I regularly ask my students to support the specific choices they have made about their work and what they have learned from those choices	1 2 3 4 5 6
21. I schedule time for my students to present and explain their decisions through their work, fielding questions from the audience of students or parents.	1 2 3 4 5 6
22. By teaching integrated units, I am increasingly learning more about my specific MYP subject area criteria that I teach.	1 2 3 4 5 6
REFLECTION	
23. As a part of my teaching, I document my students' work, in process and final product.	1 2 3 4 5 6
24. The documentation collected in my class frequently informs and even changes the curriculum at present.	1 2 3 4 5 6
25. I regularly write reflections during my teaching of units.	1 2 3 4 5 6
26. Peer teachers and I formally critique each other's work (i.e. lesson plans, lesson implementation, artifacts).	1 2 3 4 5 6
27. Feedback on my teaching from my peers, students and colleagues is incorporated in my teaching.	1 2 3 4 5 6
28. When selecting student work for moderation or for either their portfolios/folders that follow them from year to year, I continually negotiate and make sense of the MYP criteria used.	1 2 3 4 5 6
29. I often explain to my students the criteria for selecting or documenting work submitted for evaluation.	1 2 3 4 5 6
30. I ask my students to continually appraise their work on a routine basis.	1 2 3 4 5 6
31. I explicitly ask my students to apply what they have learned from their documented work to another project or unit.	1 2 3 4 5 6
32. When I look at a samples of students' work, I am increasingly able to explain how my	1 2 3 4 5 6

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teaching has impacted student learning.	
33. When looking at samples of their work in process and their final products, my students use samples of their work to explain how their learning has developed throughout the entire unit.	1 2 3 4 5 6
34. Creating and applying structures for student critique and feedback has taken on increasing importance as part of my teaching practice	1 2 3 4 5 6
DISSEMINATION	
35. I present examples of my integrated curriculum (created with the assistance of another) to other teachers at my school	1 2 3 4 5 6
36. I present the integrated curriculum to IB teachers who are not from my school	1 2 3 4 5 6
37. When parents come to school, I always make a point to share with them the integrated units.	1 2 3 4 5 6
38. I have developed some type of public material (flyer, handout, etc.) to share this arts integrated work	1 2 3 4 5 6
39. I find that people to whom I did not directly share this project with have asked me questions about this arts integrated unit.	1 2 3 4 5 6
40. Work from this arts integrated unit has been shared through an exhibition at our school	1 2 3 4 5 6
41. Work from this arts integrated unit has been shared through an exhibition/presentation at a community-based center outside of our school.	1 2 3 4 5 6
42. Work from this arts integrated unit has been shared through an exhibition/presentation at another school	1 2 3 4 5 6

43. Have you **built working relationship(s)** with a teaching artist(s) and/or external arts partner(s) before? Yes___No___

44. What were the most important features of that relationship?_____ What were the most important challenges ?What were the most important positive outcomes?

45. Have you built working relationship(s) with a non-arts external arts partner (i.e. Science museum, museum of Natural History, community based group) ? Yes No

46. What were the most important features of that relationship?_____ What were the most important challenges ?What were the most important positive outcomes?

B. IB-TAP Professional Development Exit Surveys

The International Baccalaureate-Teaching Arts Project (IB-TAP) 2010-2013

Chicago Arts Partnerships in Education Chicago Public School IB Program

PD Survey—2011-2012

Name: _____ Grade (if teacher): _____
 School: _____ Date: _____ Role: Teaching Artist IB
 Coordinator Classroom Teacher Other

The statements on this survey are based on what was modeled in the IB-TAP Professional Development (PD) sessions. Please answer the questions honestly; they will in no way affect your grant. ***Please circle the number that best describes how this professional development contributed to the following statements:***

- 1 = not a focus, never happens
- 2 = a slight focus, rarely happens
- 3 = somewhat a focus
- 4 = a definite focus in my work
- 5 = a considerable focus, frequently happens
- 6 = a major focus; always happens

Section 1: Collaboration, Sense, and Planning Has this PD helped you develop the following aspects of collaboration, sense and planning?	Circle a number
1. I brainstorm ideas about what I am interested in before the teaching artist comes to plan.	1 2 3 4 5 6
2. At planning meetings, ideas from both teaching artists and teachers are discussed and shared equally.	1 2 3 4 5 6
3. When the teaching artist is in my classroom, we exchange ideas in front of the students.	1 2 3 4 5 6
4. Teaching artists and I plan together (outside of classroom time) on the project	1 2 3 4 5 6
5. The teaching artist and I engage in arts and content research in order to further develop ideas for our collaborative MYP unit	1 2 3 4 5 6
6. I share ideas and discuss the project with my same grade IB-TAP teacher at my school.	1 2 3 4 5 6

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7. IB-TAP teachers from other grade levels and I discuss the project to see how the curriculum can continue and increase student learning from year to year.	1 2 3 4 5 6
Section 2: Inquiry, Creation, and Integration Has this PD helped you develop the following aspects of inquiry, creation and integration?	
8. When brainstorming projects and units for my classroom, I think of Big Ideas or Essential Questions to help me find multiple ways of approaching a content area.	1 2 3 4 5 6
9. I make inquiry questions for my IB units so I can explore my own teaching and what my students are learning at different stages of the project.	1 2 3 4 5 6
10. When the teaching artist is not there, I make sure my students understand that parts of my academic content curriculum also relate to IB-TAP.	1 2 3 4 5 6
11. This year, I participated in professional development that helped me learn how to implement curriculum integration lessons.	1 2 3 4 5 6
12. I developed an arts integrated multi-disciplinary project with other IB teachers.	1 2 3 4 5 6
Section 3: Documentation & Evidence of Student Learning Has this PD helped you develop documentation capacities?	
13. When making the curriculum for any IB unit, I think of what the student work would look like. This helps me to plan.	1 2 3 4 5 6
14. I, or my students, document their learning process during the school year.	1 2 3 4 5 6
15. I utilize elements of a developmental workbook to document student learning in academic learning outside of IB-TAP.	1 2 3 4 5 6
16. I utilize multimedia documentation to capture student learning in my classroom.	1 2 3 4 5 6
Section 4: Reflection and Evaluation Has this PD helped you develop Reflection and Evaluation practice?	
17. Throughout the school year, I use the students' feedback to co-create curriculum that is student centered.	1 2 3 4 5 6
18. Critique sessions or student conferences, where the students explain and receive feedback on their work, take place during the school year.	1 2 3 4 5 6
19. I make pre and post assessments to see what my students are learning through	1 2 3 4 5 6

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an art-integrated activity	
20. After any project is finished, I look back at the student work in the AI-DW to discover what was missing or successful in the curriculum.	1 2 3 4 5 6
21. After any project is finished, I look back at my work in the teacher AI-DW to discover what was missing or successful in the curriculum.	1 2 3 4 5 6
22. I reflect on my own teaching practice on a continual basis.	1 2 3 4 5 6

Section 5: Additional PD Questions

What will you take away from this PD that you might apply in your classroom?

What questions did this professional development answer for you?

What questions do you still have?

C. IB-TAP Teacher Interview Protocol

**The International Baccalaureate-Teaching Arts Project (IB-TAP)
2010-2013**

**Chicago Arts Partnerships in Education
Chicago Public School IB Program
Follow-up Survey Interviews**

DIRECTIONS:

Thank you for participating in this interview. The questions below will serve as a guide for our discussion today. These questions are based upon the IB-TAP pre/post survey you completed, and provide a format for us to discuss your ideas and practices within each of these areas. We will start with the items in **bold**. This interview will take no more than 30 minutes.

- Think about your units from last year (2011-2012 academic year). In what ways did you refine or change the unit this academic year (2012-2013 academic year)? What did you decide to do differently and how did you implement that change? As we talk about this together, please bring in student work from this year that exemplifies any refinements or changes you made to the curriculum.
- Thinking back on your IB-TAP unit this academic year, what evidence of student learning was particularly remarkable to you? Please bring in 1 or 2 student artifacts that exemplify this.

Collaboration

- 1. How did you and your teaching artists co-teach your units last year? What ideas/insights emerged through your collaboration?**
- 2. Through your IB-TAP project, were there any examples of collaboration (questioning, exchanging ideas) that you thought were useful to model for your students?**

Integration

- 3. What strategies did you think helped to facilitate students' abilities to transfer their learning across subject areas? What are you thinking about building upon this year?**

4. **In your online template did you notice any connections between subject concepts and students real life experiences? (I will have the template on hand to look over with you).**
5. **How do you think students were impacted by expressing their ideas in multiple modalities such as speaking, writing, sound, gesture, graphs, notations, movement, etc?**
6. **How did students critique, either self-critique or in a group, their own work in the IB-TAP projects? What opportunities do you see for your current or upcoming IB-TAP project?**

Reflection

7. **What did you learn about documentation through your IB-TAP units? What strategies might be useful for you to carry forward in your teaching?**
8. **Thinking back on IB-TAP, what evidence of student learning was particularly remarkable to you?**
9. **What new or growing ideas do you now have about capturing evidence of student learning?**
10. **Have has (or will) your IB-TAP curriculum changed based upon your reflections or your documentation? Please explain.**
11. **In looking at your documentation, what insights did you develop about the MYP criteria you used to assess your IB-TAP units?**

Dissemination

12. **Reflecting on last year, your documentation template and sharing your IB-TAP units with others in your school, what ideas have you developed about sharing examples of your curriculum with others, including other teachers, parents and community?**

D. IB-TAP Effective Teaching and Student Engagement Protocol

The International Baccalaureate-Teaching Arts Project (IB-TAP) 2010-2013

Chicago Arts Partnerships in Education
Chicago Public School IB Program

Effective Teaching Observation Protocol: Researcher Form EFFECTIVE TEACHING & STUDENT ENGAGEMENT OBSERVATION PROTOCOL

Teacher Name : _____ Observer: _____

Teaching Artist: _____

School: _____ Grade Level: _____

Beginning? End of Project? (Circle one) Today's date: _____ Length of lesson: _____

What does teaching for student engagement look like in arts partnerships? Your task, as data collector, is to observe the entire session identified as part of the IB-TAP program. Then use this protocol to note the degree to which each of these research-based strategies were in evidence. The goal is NOT to observe all of these in one single lesson. This is NOT an evaluation of the classroom or teaching; rather it is to get a sense of what teachers and students do during a lesson.

Then, please distribute the TEACHER VERSION of the PROTOCOL and ask her/him to complete for the same lesson. Stress that this is NOT an evaluation. Collect her/his completed form and attach to yours. The form should not take more than 10 minutes to complete.

For THIS lesson/session, circle the number that most accurately reflects what occurred:

1: Did not use in this lesson

3: Used, with some emphasis in the lesson

2: Used, but with little emphasis in the lesson

4: Used, with major emphasis in the lesson

INTEGRATED INSTRUCTION					
1	2	3	4		1. Classroom teachers contribute to classroom planning, co-teaching, documentation and assessment issues rather than only focusing on classroom management issues.
1	2	3	4		2. Teacher and artist challenge each other to investigate questions and exchange ideas and are able to model these behaviors for, and with, students.
1	2	3	4		3. Classroom teacher takes up newly learned arts skills and vocabulary
1	2	3	4		4. Teachers identify subject (including art vocabulary) -specific concepts and problem-solving skills explicitly for the transfer of learning across the subject areas.
1	2	3	4		5. Instructors identify concepts from subject-specific areas that can be applied to students' real-life experiences.
1	2	3	4		6. Arts and non arts specific concepts are used in an interdependent way by teachers and/or students.
1	2	3	4		7. Instruction is collaborative.
1	2	3	4		8. Students support the specific choices they have made about their work and any insights learned from those choices.
1	2	3	4		9. Students critique and provide feedback for one another's work.
1	2	3	4		10. Students continually appraise their own work on an ongoing basis.

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1 2 3 4	11. Student documentation is used to facilitate learning in the classroom.
	CONNECTING TO STUDENTS' LIVES
1 2 3 4	12. Students are asking each other questions about the quality of their work or what their work communicates.
1 2 3 4	13. Students asking questions that they, themselves are curious about.
1 2 3 4	14. Students are consciously and actively influencing the direction of the curriculum.
1 2 3 4	15. Students are adapting and modifying their ideas according to feedback and various scenarios?
1 2 3 4	16. Students are presenting and explaining their decisions through their work.
1 2 3 4	17. Students are analyzing their own and each other's work.
	CHALLENGING ACTIVITIES
1 2 3 4	18. Students are asking "Why" and "How".
1 2 3 4	19. Students are challenging traditional interpretations of the subject areas.
1 2 3 4	20. Students are they describing their research process.
1 2 3 4	21. Students are organizing their ideas.
1 2 3 4	22. Students are using their imagination exploring "what if", documented by whole classroom and small group discussions.
1 2 3 4	23. Students are engaging with their peers, asking them for input and guidance in the planning process.
1 2 3 4	24. Students are anticipating and discussing potential difficulties.
1 2 3 4	25. Students are making connections between situations, concepts, or things that are usually not connected.
1 2 3 4	26. Students are improvising and experimenting while they are working on their project (responding to new developments)
1 2 3 4	27. Students are discussing any impasses they are experiencing.
1 2 3 4	28. Students are representing their learning through different modes of expression and/or representation (speaking, writing, logical-mathematical, visual-spatial, interpersonal, kinesthetic).
1 2 3 4	29. Students are discussing their insights or things they've learned.
1 2 3 4	30. Students are using multiple media to document.
1 2 3 4	31. Students are referencing previously documented work as part of their reflection.
1 2 3 4	32. Students are requesting and offering feedback on their work.

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*Adapted from Standards for Effective Pedagogy Center for Research on Education, Diversity and Excellence www.crede.org and
NCREL Criteria for Student Engagement*

E. IB-TAP Student AIDW Artifact Analysis Tool

The International Baccalaureate-Teaching Arts Project (IB-TAP) 2010-2013

Chicago Arts Partnerships in Education Chicago Public School IB Program

Student Arts Integrated Development Workbook (Student AI-DW) Content Analysis Protocol

Introduction:

Through the course of the IB-TAP program, students develop an Arts-Integrated Developmental Workbook (AI-DW) that documents the processes and artifacts created during the IB-TAP program. The AI_DW is based upon the IB-TAP Creative Cycle, a synthesis of the IB Creative Cycle and the CAPE Arts Integration Model. The aspects of the IB-TAP creative cycle that students engage in during the IB-TAP program are:

1. *Inquiry*: student develops an initial inquiry that may evolve over the course of the project. The inquiry can be related to a content area concept or theme, an arts theme/process or skill, a social cultural issue or a personal/reflective theme. Inquiry questions might stem from the teacher/teaching artist inquiry question for the unit, or the students' own.
2. *Sense*: Students actively engage in research as a vehicle for further developing their ideas for their final work of creation. This may begin with a focus on their areas of interest related to their inquiry questions as well as potential art-making processes.
3. *Plan*: Students document, plan and define strategies in order to develop their work of creation
4. *Create*: Students create artwork, make connections to big ideas, and share their knowledge in multiple media
5. *Document*: students track their growth and progress through multi-media documentation (photo, video, writing, art work, compositions, etc.)
6. *Evaluate*: Students self assess and search for evidence of their learning and growth
7. *Reflect*. Students complete a reflection based upon their original inquiry questions.

The following protocol is to be used by researchers as they evaluate Student AI-DW's, noting changes in student arts and academic achievement as a result of their participation in the IB-TAP program.

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Please select the type of curriculum project from which this artifact was selected:

- _____ Modeled Project (Student completes an IB-TAP project that was modeled for him/her by teacher and teaching artist)
- _____ Collaborative Project-Guided (Student collaboratively develops an IB-TAP curriculum project idea with the teacher/teaching artist.)
- _____ Independent (Student develops his/her own idea for the IB-TAP project and completes the project independently)

For each item below, please indicate the following:

- 1 = artifact is irrelevant, generic and/or confused
- 2 = artifact is one dimensional. It addresses the issue at hand but only reflects a singular answer
- 3 = artifact represents relational or connected thinking across disciplines
- 4 = artifact represents a level of sophistication and an understanding of the area of discipline

<i><u>Inquiry:</u></i>	
1. Quality of the investigation encompasses an understanding of the broad, "big" ideas	1 2 3 4
2. Investigation is literal or concrete	1 2 3 4
3. Quality of the investigation stems from a "felt need" or curiosity that the student has brought to the investigation	1 2 3 4
4. Student is forging a connection to his/her home life, evidenced in an investigation that occurs during their art-making process	1 2 3 4
5. Students inquiry facilitates trans-disciplinary engagement (arts and non-arts are clearly represented)	1 2 3 4
6. Inquiry supports the potential for critical thought	1 2 3 4
7. Inquiry supports the use of original student research	1 2 3 4
8. Inquiry leads to multiple answers	1 2 3 4
9. Inquiry facilitates multiple perspective-taking	1 2 3 4
10. Student raises "how" and "why" questions, and these are evident in his/her AI- DW	1 2 3 4
<i><u>Sense:</u></i>	
1. 1. Student describes his/her research process	1 2 3 4
2. Research documentation includes information found as well as reflections on that information.	1 2 3 4

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3. Student reflections show evidence of his/her thinking as well as insights related to the art-making process	1	2	3	4
4. Student incorporates observations related to his/her topics of interest.	1	2	3	4
<u>Plan:</u>				
1. Plans and strategies are explicitly documented	1	2	3	4
2. Possibilities for or examples of how the student is engaging in arts integration are incorporated into his/her plans	1	2	3	4
3. Through unfolding plans, student is using imagination and exploring “what if”, documented by discussions, scenarios, and/or vignettes.	1	2	3	4
4. Student is engaging with peers, asking them for input and guidance.	1	2	3	4
5. Student is anticipating and discussing difficulties	1	2	3	4
6. Student is adapting and modifying his/her ideas	1	2	3	4
<u>Create:</u>				
1. Student artwork has multimedia dimensions	1	2	3	4
2. Student artwork is trans-disciplinary	1	2	3	4
3. Student artwork has clear connections to his/her inquiry	1	2	3	4
4. Student is making connections between situations, concepts, or things that are usually not connected.	1	2	3	4
5. Student is improvising while working on his/her project by responding to new developments.	1	2	3	4
6. Student is experimenting and willing to try new directions as he/she creates artwork.	1	2	3	4
7. Student discusses any impasses he/she is experiencing, and documenting how to work through these.				
8. There is evidence of student growth in art-making	1	2	3	4
<u>Documentation:</u>				
1. Documentation (plans, etc) has multimedia dimensions	1	2	3	4
2. Documentation shows complexity	1	2	3	4
3. Documentation contains evidence, through artifacts, of student growth in thinking.	1	2	3	4

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4. Inquiry, planning and creation processes are all documented	1	2	3	4
5. Documentation tells “the story” of the developmental creative process	1	2	3	4
6. Documentation contains reflective writing that is written in the student’s voice	1	2	3	4
7. Documentation shows evidence of student risk-taking and choice	1	2	3	4
8. Documentation shows variation in the types and quality of artifacts selected	1	2	3	4
9. As the student documents, it is evident that he/she is searching for trends or patterns.	1	2	3	4
<i><u>Evaluation:</u></i>				
1. Student self evaluation is based upon evidence contained within his/her DW.	1	2	3	4
2. Student discusses self-evaluation at the portfolio conferences.	1	2	3	4
<i><u>Reflection:</u></i>				
1. Student is articulating the development of his/her creative process	1	2	3	4
2. Student “sense-making” is present in his/her reflections	1	2	3	4
3. Student makes meaning by building on previous work	1	2	3	4
4. It is evident that the student is seeing things from different points of view	1	2	3	4
5. It is evident that the student is proposing divergent outcomes, outside the accepted or articulated one.	1	2	3	4
6. The student uses reflection to solicit feedback from teachers and peers.	1	2	3	4
7. The student reflects on how they have incorporated that feedback.	1	2	3	4

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F. IB-TAP Teacher AIDW, MYP and Student AIDW Rubric and Scoring Guide

IB-TAP

Appendix: Creative Cycle Rubric

Scoring Guide: Middle Year Planners (MYP), Teacher AIDW (T-AIDW);
Student AIDW (S-AIDW)

Construct	Level 4	Level 3	Level 2	Level 1
Inquiry	The quality of the inquiry states a broad, big idea. The inquiry is sufficiently abstract to facilitate critical thought and original student research. Transdisciplinary learning is explicitly planned for. Original student research drives the learning activities. There is explicit mention of the connection between the	The quality of the inquiry question framing the unit reflects a broad, big idea that supports the potential for critical thought. The inquiry is sufficiently abstract to facilitate original student research. The unit inquiry and activities provide transdisciplinary learning opportunities. Coherence between the inquiry question and	Quality of the inquiry question framing the unit does not reflect a broad, big idea that supports the potential for critical thought and original student research. The inquiry is literal or concrete. The inquiry does not facilitate connections between students' worlds and prior experiences. The inquiry does not lead to multiple perspectives or solutions. Transdisciplinary learning, particularly arts and non-arts, is not specifically stated nor would it be easy to facilitate this through the stated inquiry. There are not explicit connections between the inquiry and the learning activities.	

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Construct	Level 4	Level 3	Level 2	Level 1
	inquiry and the learning activities.	unit activities are evident, even if not explicitly mentioned.		
Sense	The artifact explicitly describes research processes used by students. These processes are used for multiple purposes, including acquiring knowledge and applying what was learned in unique contexts and for multiple audiences. Insights from research efforts are shared, and evidence is provided that documents those insights. Observations	The artifact describes research processes used by students. Research is undertaken for a single purpose...to acquire knowledge. Insights from research efforts are shared, but through narrative without any supportive documentation or artifacts.	Research processes are described and are incorporated into the project for a single purpose...to acquire knowledge.	Research processes are not described.

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Construct	Level 4	Level 3	Level 2	Level 1
	and insights about the unit inquiry are shared.			
Plan	The artifact represents a level of sophistication and a complex articulation of the quality. The unit holistically incorporates arts processes and products, and affords a need to engage with academic content. Collaboration and group processes are inherently important to the success of the unit and the products created.	The unit describes student activities in sufficient detail. Arts processes or art pieces that students will create are described. Collaborative processes or group activities are defined and described.	Student activities are generally or superficially described. Possibilities for arts integration might be stated, but no specifics are provided. Little or no information is provided concerning approaches students may use to collaborate.	Student activities are not described or are too generic to explain <i>how</i> students will learn the content.
Create	Students' documents the stages of creating an arts integrated	Student documents artwork using multimedia. Connections	Student documents a final product using one modality..whet	Students do not document artistic creations.

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Construct	Level 4	Level 3	Level 2	Level 1
	product. The artwork and reflections make clear connections to big ideas. Students describe how they solicit and incorporate feedback about their creations into the final product. They share their ideas in multiple media	to big ideas are not depicted. They don't describe how they incorporate feedback into their final products	her it be an image or a narrative. Connections to big ideas are not depicted.	
Document	Documentation is complex and students use artifacts to provide evidence of their growth. Documentation tells the story of the IB-TAP project and is written in the student's voice. All	Documentation shows variety in the types of artifacts selected. Documentation tells the story of the IB-TAP project. Documentation is written in the student voice.	Documentation uses multimedia and tells the story of the IB-TAP project.	Document has a heavy text focus and does not reflect student voice.

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Construct	Level 4	Level 3	Level 2	Level 1
	aspects of the IB-TAP project are included. Documentation shows variation in the types and quality of artifacts selected.			
Evaluate	Student/teachers self assess their growth and search for evidence of their learning through their artifacts.	Students/teachers self assess their growth but only through reflection and memory. Artifacts are not analyzed to provide evidence of growth	Teachers/students report on reactions to project activities and what they have learned through narrative but provide limited explanations	Teachers/students do not engage in self evaluation.
Reflect	Teacher/student articulates the development of his/her creative process. Sense making is present in reflections, and is documented	Teacher/student articulates the development of his/her creative processes. Sense making is present in reflections. Teacher/student presents	Teacher/student sense making is present.	Reflections merely provide a snapshot of what was done or comment about what was liked/what was difficult about the project.

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Construct	Level 4	Level 3	Level 2	Level 1
	with evidence. Teacher/student uses reflection to solicit feedback from peers and students, and incorporates how that feedback impacted him/her. Teacher student presents multiple points of view	multiple points of view.		

G. IB-TAP Portfolio Conference Protocol

CPS IB AI-DW Portfolio Conference Protocol

Preliminary Protocol Norms:

- IB student Art Integrated Domain Workbooks (AI-DW) and contextual documents (relevant curriculum unit plans, class assignments, and evaluation rubrics) are to be made available to classroom teachers and teaching artists prior to the start of the conference to look over the scope of work to be discussed that day
- Three (3) students are chosen to participate in the first portion of the conference; if possible, students represent the full range of academic abilities according to HAL prior academic designation in the classroom
- The Teacher is asked to select two primary works for the session: 1) something that shows good understanding of their work in terms of arts integrated learning, 2) “before and after” (pre-post) sample of work that shows evidence of improvement during the academic year. Video clips of small group, large group and culminating activities can be shown during this part of the conference as well
- Each student is challenged to select one favorite work sample that illustrates well the most interesting thing they did that year that want to talk about during the session.
- The Protocol is designed to last 45-50 minutes.

Reminders for Videotaping:

- All participants’ (interviewer’s, teacher’s, teaching artists’, students’) faces should be visible in the camera.
- Whenever student work is shown or referred to, the camera should pan and/or zoom so that that work can be seen by the viewer.
- Conduct the AI-DW portfolio conference in a QUIET place, with as little background noise as possible.
- Use a tripod and an external microphone (if feasible) for optimal visual and audio quality.

***TIMELINESS is key, because these sections have the tendency to be long, and the Interviewer should be sensitive to students’ endurance—while striving to glean the most detailed responses.*

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Suggested durations for each section appear in the left-most column in blue highlight.

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Protocol Structure	Script	Comments by Facilitator:
I. Pre-Session Question Protocol for the Teacher (and Teaching Artist) Only (students listening quietly):		
<p>1. Teacher's overview of IB-CAPE project, goals, and teaching practice.</p> <p>4 minutes.</p>	<p>Primary QUESTIONS:</p> <ol style="list-style-type: none"> 1. Please summarize your view of the CAPE-IBIB project and its goals. 2. How did working with the teaching artist contribute to the formulation of projects, collection of student work, and the assessment of student work? <p>Possible FOLLOW-UP questions with your choice of COLLABORATIVE PRACTICE items:</p> <ol style="list-style-type: none"> a. To what extent did you brainstorm ideas before the arts specialist/arts teacher joined you in planning? b. To what extent were planning meetings useful for consensus building? c. Describe innovative arts integration approaches or processes you used to explore big ideas within a given content area. d. To what extent do inquiry questions drive your own exploration of teaching? <p>Possible FOLLOW-UP with your choice of REFLECTIVE TEACHING/ARTS INTEGRATION items:</p> <ol style="list-style-type: none"> e. Why is collaborative teaching important? f. To what extent are IB-CAPE arts integration approaches new to your own teaching approach? g. Give an example or two of ways in which you and an art teacher/art specialist effectively collaborated. h. To what extent did you discuss the project with classroom teachers from other grade levels? 	<p>Comments, notes by Facilitator:</p>

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<p>2. Quality of arts integrated work, as exhibited through sample student work.</p> <p>2 minutes.</p>	<p>How does the AI-DW represent the quality and goals of your arts integrated learning projects through the samples of student work?</p> <p>By what criteria did you select student work to be discussed during AI-DW portfolio conference?</p> <p>FOLLOW-UP with your choice of REFLECTIVE PRACTICE items:</p> <ol style="list-style-type: none"> To what extent do you think the work that was chosen for this session represents good examples of a 'high quality arts integrated curriculum' – as it is emerging in your classroom, with your students? Why do you think your students learn by looking at documentation of their work in process and their finished product? How does collecting documentation of your practice help you evolve as a teacher? Based on the student work, do you see changes in how you taught over the course of the IB-CAPE units? 	<p>Comments, notes by Facilitator:</p>
<p>3. Process of collecting and documentation applying it to teaching practices.</p> <p>2 minutes.</p>	<p>What were the challenges of documenting student work? How were these challenges solved?</p> <p>FOLLOW-UP with your choice of REFLECTIVE PRACTICE items:</p> <ol style="list-style-type: none"> To what extent did you, or your students, document and assess student learning processes during the unit? To what extent did you use pre and post assessments to see what your students were learning through arts integration? To what extent do you review student work after a unit is completed to determine how to revise that unit? 	
<p>4. Evidence of student learning; other indicators of arts integrated learning.</p> <p>2 minutes.</p>	<p>What is the best evidence in the AI-DW portfolio that indicates how student learning has evolved within a given unit and the year as a whole?</p> <p>What are other indicators of understanding of arts integrated learning that you have observed that are not clearly represented in the AI-DW?</p> <p>FOLLOW-UP with your choice of REFLECTIVE PRACTICE items:</p> <ol style="list-style-type: none"> To what extent do you meet with your students, individually, or in small groups, to review their work over the course of a given unit, and the year as a whole? To what extent do your students have the opportunity to perform, present, or exhibit their work to others at their own school (or another school)? To what extent do you make use of students' feedback to co-create curriculum that meets their interests and needs? 	

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II. STUDENT AI-DW PORTFOLIO CONFERENCE PROTOCOL (no comments from Teacher/Teaching Artist):

<p>GENERAL QUESTIONS</p> <p>Basic Instructions to Students A, B, & C. Teacher and Teaching Artists to remain silent.</p> <p>1 minute</p>	<p><i>Hi, my name is ... and your names are?</i></p> <p><i>Today we are going to talk about your work with [Teaching Artist #1] and [Teaching Artist #2]. We'll be calling it the, "[TA #1]-[TA#2] Project."</i></p> <p><i>There will be several parts to our meeting today. Some parts will start with simple questions, and then turn into a conversation, where I might ask you to describe or explain your work with the teaching artists and what you have been learning during these projects in art, music, dance, or drama.</i></p> <p><i>I especially want to hear about <u>your</u> work whenever possible.</i></p>	<p>Comments, notes by Facilitator:</p>
<p>Warm-up questions.</p> <p>2 minutes.</p>	<p>Do you take part in after school art activities that take place in this school?</p> <p>Do you participate in music, dance, art, or theater organizations or activities outside of this school?</p> <p>Have you seen your classmates perform, exhibit, or demonstrate art or music that they did in this classroom outside of class?</p> <p>Do students in your school learn about the music, visual arts, and/or music and explore its connections to math, language arts, or world languages and cultures?</p>	

Focus on TEACHING ARTIST #1 AI-DW PROJECT WORK

<p>Introductory Round, general prompts.</p> <p>1.5 minutes per student. (5 minutes)</p>	<p><i>You studied [name of book, unit, or culture] with a teaching artist. Please briefly tell me about what you did with this artist. What's it essentially all about? (e.g., How did you work with characters? Math Principles? Three-dimensional art? Musical composition, performance, and listening? Dance and choreography? How does it work together? Music and character, math and choreography, etc.)</i></p> <p>How does the work you brought today reflect your work with [Teaching Artist #1]?</p> <p>(Each student answers individually).</p> <p>FOLLOW-UP with your choice of the following STUDENT</p>	<p>Comments, notes by Facilitator:</p>
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1. First Round of	Interviewer asks Students B & C to interpret Student A's work.	
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	<p>SURVEY QUESTIONS:</p> <p>a. Please show and describe examples of work with Teaching Artist 1 that connects to math, science, language arts, etc.</p>	
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<p>investigation: Student A's work, as interpreted by Student B & Student C.</p> <p>5 minutes.</p>	<p>Student A is allowed to respond after interviewer feels Students B & C have given adequate interpretations.</p> <p>FOLLOW-UP Questions for Student A:</p> <p style="text-align: center;">What did you learn about doing this work that you didn't know before?</p> <p>After Student A is given his/her follow-up questions ...</p> <p>FOLLOW-UP Question for Students B & C: What have you found out about Student A?</p>	
<p>2. Second Round of investigation: Student B's work, as interpreted by Student A & Student C.</p> <p>5 minutes.</p>	<p>Interviewer asks Students A & C to interpret Student B's work. Student B is allowed to respond after interviewer feels Students A & C have given adequate interpretations.</p> <p>FOLLOW-UP Questions for Student B:</p> <p style="text-align: center;">What did you learn about doing this work that you didn't know before?</p> <p>After Student B is given his/her follow-up questions ...</p> <p>FOLLOW-UP Question for Students A & C: What have you found out about Student B?</p>	
<p>3. Third Round of investigation: Student C's work, as interpreted by Student A & Student B.</p> <p>5 minutes.</p>	<p>Interviewer asks Students A & B to interpret Student C's work.</p> <p>Student C is allowed to respond after interviewer feels Students A & B have given adequate interpretations.</p> <p>FOLLOW-UP Questions for Student C:</p> <p style="text-align: center;">What did you learn about doing this work that you didn't know before?</p> <p>After Student C is given his/her follow-up questions ...</p> <p>FOLLOW-UP Question for Students A & B: What have you found out about Student C?</p>	

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Focus on TEACHING ARTIST #2 AI-DW PROJECT WORK		
<p>Introductory Round, general prompts. 1.5 minutes per student. (5 minutes)</p>	<p><i>You studied [name of book, unit, or culture] with a teaching artist. Please briefly tell me about what you did with this artist. What's it essentially all about? (e.g., How did you work with characters? Math Principles? Three-dimensional art? Musical composition, performance, and listening? Dance and choreography? How does it work together? Music and character, math and choreography, etc.)</i></p> <p>How does the work you brought today reflect your work with [Teaching Artist #1]?</p> <p>(Each student answers individually).</p> <p>FOLLOW-UP with your choice of the following STUDENT SURVEY QUESTIONS:</p> <ol style="list-style-type: none"> a. Please show and describe examples of work with Teaching Artist 1 that connects to math, science, language arts, etc. 	<p>Comments, notes by Facilitator:</p>

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<p>1. First Round of investigation: Student A's work, as interpreted by Student B & Student C.</p> <p>5 minutes.</p>	<p>Interviewer asks Students B & C to interpret Student A's work. Student A is allowed to respond after interviewer feels Students B & C have given adequate interpretations.</p> <p>FOLLOW-UP Questions for Student A:</p> <p style="text-align: center;">What did you learn about doing this work that you didn't know before?</p> <p>After Student A is given his/her follow-up questions ...</p> <p>FOLLOW-UP Question for Students B & C: What have you found out about Student A?</p>	
<p>2. Second Round of investigation: Student B's work, as interpreted by Student A & Student C.</p> <p>5 minutes.</p>	<p>Interviewer asks Students A & C to interpret Student B's work. Student B is allowed to respond after interviewer feels Students A & C have given adequate interpretations.</p> <p>FOLLOW-UP Questions for Student B:</p> <p style="text-align: center;">What did you learn about doing this work that you didn't know before?</p> <p>After Student B is given his/her follow-up questions ...</p> <p>FOLLOW-UP Question for Students A & C: What have you found out about Student B?</p>	
<p>3. Third Round of investigation: Student C's work, as interpreted by Student A & Student B.</p> <p>5 minutes.</p>	<p>Interviewer asks Students A & B to interpret Student C's work. Student C is allowed to respond after interviewer feels Students A & B have given adequate interpretations.</p> <p>FOLLOW-UP Questions for Student C:</p> <p style="text-align: center;">What did you learn about doing this work that you didn't know before?</p> <p>After Student C is given his/her follow-up questions ...</p> <p>FOLLOW-UP Question for Students A & B: What have you found out about Student C?</p>	

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IV: Post-Session Teacher-Teaching Artists Question Protocol (Students listen):		
<p>1. Observations regarding the work presented.</p> <p>2 minutes.</p>	<p>What did you notice about the work that the students shared in the AI-DW portfolio conference session?</p>	<p>Comments, notes by Facilitator:</p>
<p>2. Observations regarding students in small groups.</p> <p>2 minutes.</p>	<p>What did you notice about students' comments on their own and their peer's work?</p> <p>What did you learn about your students learning from their remarks in the AI-DW portfolio conference that you might not have known from previous observation during the class activities?</p> <p>Is that the sort of thing that happens in school and we were just sort of reenacting it, or is this a different way to look at what they're learning?</p> <p>FOLLOW-UP with ARTS INTEGRATION items:</p> <ul style="list-style-type: none"> a. To what extent do students understand that parts of the writing/culture/math curriculum also relates to art integration practices? b. To what extent did their comments affirm or augment what you expected to hear or see based on their work in the IB-CAPE project this year? What surprised you? 	

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4. Observations regarding the efficacy of the AI-DW Portfolio conference. 2 minutes.	<p>From your observations of student participation in the AI-DW Portfolio conference, what do you think constitutes additional evidence of your students' arts-integrated learning that may have not been clear by the artifacts in the PAIL or in previous classroom observations?</p> <p>What would you offer to your peers as evidence of arts integrative learning? What in this discussion and interaction would be evidence of that?</p>	
5. Evidence of Student Learning Outcomes. 2 minutes.	What evidence emerged in the AI-DW portfolio session that was most convinced you that high-quality arts integrated teaching practices led to student learning outcomes?	
6. Looking to the Future. Closing Comments 2 minutes.	Looking forward in your teaching career, are there ways that you can see IB-CAPE project work impacting your students, your teaching practices, and your own professional development in the future?	

H. PAI



**CAPE-CPS International Baccalaureate Teaching Arts Project
(IB-TAP)
Arts-Arts Integration Performance Assessment Interview (AIPAI)
Protocol**

Preliminary Protocol Norms:

- Individual students selected for the PAI represent the full range of academic achievement according to HAL (High, Average, Low) prior academic designation relative to the range of standardized test in each IBTAP Treatment or Control School classroom. Tester is NOT informed as to particular student classification prior to the interview.
- The PAI Interviewer follows the interview protocol consistently for every student by: 1)) reading each primary question, every follow-up question, and every performance assessment task description exactly as written, 2) elaborating on each question or task description with standard prompts (“can you say more about that?” “Please explain what you said (or did) using different words so I can understand better what you mean”, “can you show me another way to accomplish this task, etc.), to ensure that the student has understood the question or tasks and that the interviewer expects every student to answer the questions or finish their performance tasks as completely as possible
- The Protocol is designed no more than 30 minutes.

Reminders for Videotaping:

- The student’s face should be visible in the camera.
- Whenever student work is shown or referred to, the camera should pan and/or zoom so that the question and task response can be seen by the viewer.
- Conduct the portfolio conference in a QUIET place, with as little background noise as possible.
- Use a tripod and an external microphone (if feasible) for optimal visual and audio quality.

***TIMELINESS is key, because these sections have the tendency to be long, and the Interviewer should be sensitive to students’ endurance—while striving to glean the most detailed responses.*

*Suggested durations for each section appear in the left-most column in **blue highlight**.*

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Name of Student:

Grade

Date:

School:

Teacher:

Protocol Structure	Script	Comments by Facilitator:
Question and Task Protocol		
I. Questions about arts and academic teaching and learning in your IBTAP classroom(s). 10 minutes.	<p>Primary QUESTIONS:</p> <p>A. Please tell me what sort of things happened in your IBTAP classroom(s) in your school. Please give specific examples.</p> <p><i>(1 minute)</i></p> <p>B. What sorts of activities or projects did you participate in? Please describe specific examples.</p> <p><i>(1 minute)</i></p> <p>C. What group work did you complete in these classes? Please describe specific examples of art and academic work and what you learned from this work.</p> <p><i>(2 minutes)</i></p> <p>D. What individual work did you complete? Please describe specific examples of art and academic work and what you learned from this work.</p> <p><i>(3 minutes)</i></p> <p>E. In what ways did your IBTAP work connected to other kinds of learning in your academic subjects? Please give specific examples.</p>	<p>Comments, notes by Facilitator:</p>

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II. Questions about Music and Visual Arts and their integration with other domains 12 minutes.		Comments, notes by Facilitator:
A. Knowledge of Art Forms	<ul style="list-style-type: none"> • What is music? Please give an example of high quality music? What makes example high quality? • What is visual art? Please give an example of high quality music? What makes example high quality? • How is high quality music and visual art similar to or different from high quality literature or thinking in language arts and/or math? 	
B. Skillful Arts Making Processes	<ul style="list-style-type: none"> • What are useful skills and processes for making music? Why is it important to learn these skills and processes? • What are useful skills and processes for creating visual art? Why is it important to learn these skills and processes? • How are creative processes in music and the visual arts similar to or different from language and math? 	
C. Judgment	<ul style="list-style-type: none"> • How do you know when you have finished successfully creating or performing a piece of music? • How do you know when you have successfully finished creating a work of visual art? • How are judgments about completing music or visual art similar to or different from completing language arts writing or solving mathematical problems? 	
D. Expression	<ul style="list-style-type: none"> • What is a musician able to express by creating or performing a piece of music? • What is a visual artist able to express by creating or performing a painting or a sculpture or a movie? • How is expression in music or visual art about completing music or visual art similar to or different from what an author can express in language arts or a mathematician can express in problem solving tasks? 	
E. Imagination	<ul style="list-style-type: none"> • What kind of ideas or images to you have when performing or making music? Where do you think these ideas come from? • What kind of ideas or images to you have when making visual art? Where do you think these ideas come from? 	

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	<ul style="list-style-type: none"> • How ideas and images also reflected in writing reading or math? How are these ideas and images similar to, or different from, ideas and images in music and visual art? 	
F. Arts as a Learning Experience	<ul style="list-style-type: none"> • What kind of things can students learn from listening carefully to a high quality piece of music? How can an experience of a piece of music possibly change someone's understanding of themselves and/or their life? • What kind of things can students learn from looking carefully at a high quality piece of visual art? How can an experience of a work of visual art possibly change someone's understanding of themselves and/or their life? • What kinds of things can students learn from reading high quality fiction or non-fiction books? or studying math problem or theorems? How are these learning experiences similar to, or different from, learning while creating or experiencing music and visual art? 	

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III. Performance Assessment Tasks		Comments, notes by Facilitator:
Knowledge/Comprehension of IB concepts 12 minutes.	<ul style="list-style-type: none"> • What have you been curious about, in your life or school? How did you investigate that curiosity? What did you learn? • How can inquiry or your curiosity help you to learn? Why is it important to be curious and investigate? How does that help you learn? • How do you do research in order to acquire knowledge? What are good strategies for doing research? Why should you do research? • How do you start a project? What do you need to do in the beginning stage? How can you plan a project so that you will have a better chance of succeeding in the long run? • What is it like when you are in the middle stage of a project? What are you doing at that point? What is important about this stage? • When you are completely done with a project do you ever look back or reflect on your work? Why would it be useful to do this? What kinds of things can you learn from reflecting on your work? 	
IV. Final Reflection on the whole Performance Assessment Interview Process 2 minutes.	<ul style="list-style-type: none"> • What have you learned by responding to our questions and tasks? • How do you think your answers might change as you continue to learn about the arts in your school the next year? 	
•		

I.

IB-TAP

Teacher Themes Code Book

(Key: theme definition in left column, teacher statements as examples in italics in right column)

COLLABORATION THEMES	
Theme: Teacher comments on improvement in relationship	
Classroom teacher describes improvement in TA collaborative relationship	<ul style="list-style-type: none"> • <i>J and I have a much better grip on the direction we are going with regards to what we're going to be responsible for</i> • <i>Our planning was much more efficient</i> • <i>This year it worked out really well. Last year I had never done it before so I wasn't really sure what to expect. But this year we picked a unit together and we were able to get through what we wanted to get done.</i> • <i>I have more of an idea of the working relationship with Mirtes and what she gets out of it.</i> • <i>The planning was good. We made sure we had enough planning time. That was our biggest concern last year, was the planning and making time to meet. And Mirtes was great about following through and saying I can come here.</i>
Theme: Planning	
Teacher describes particulars of how collaborative planning occurred	<ul style="list-style-type: none"> • <i>Merging ideas at the outset, planning from there</i> • <i>Picking a unit together and while we talked to each other the wheels were turning with both of us</i> • <i>We scheduled a planning session after a few lessons. Both of us saw the need to incorporate more mathematical concepts in the unit. Just being more aware of this need drove us to ask mathematical questions during the course of the lessons.</i> • <i>We were planning together, bouncing ideas off of one another</i> • <i>Having created a strong plan and a clear</i>

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	<p><i>focus for each session kept the project moving forward</i></p> <ul style="list-style-type: none"> • <i>We also knew what we had to adapt from last year to make it fit a more holistic type mathematical approach</i> • <i>But the planning part itself I think was pretty easy because again, like with Kevin we got together and in one afternoon pretty much laid out what we wanted to do.</i> • <i>We sat down with her and said this is our idea...and she brought things to kind of tie in. And she had her ideas. We combined ours and it ended up working pretty well.</i>
Theme: co-teaching/team teaching	
Teacher explicitly describes the co teaching that occurred during classroom instruction	<ul style="list-style-type: none"> • <i>The students witnessed successful collaboration between the teacher and the visiting artist. My teaching was interspersed with her teaching. Instruction would often transcend to dialogue. Student questions were freely answered by either of us and we learned from each other.</i> • <i>With the CAPE artists, we're teaching as a team and collaborating together</i> • <i>As a teacher I took notes while the artist taught new vocabulary and strategies. I made large scale posters to display around the room</i> • <i>It is a shared work. It's not okay, this person's coming in and they're doing their thing and I'm just standing back letting them do their thing. That is something we do jointly.</i> • <i>As we proceeded through the scale drawing, both of us provided instruction on using the scale to reduce the actual size of the desks to the correct size on the scale drawing. Students were exposed the lesson from the mathematical and architectural points of view.</i> • <i>Mirtes will stop so I can explain something, I'll stop so she can explain something. So I</i>

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	<p><i>think that's an important part of putting it together</i></p> <ul style="list-style-type: none"> • <i>Well I think when he's there I let him take over, take the class</i>
Theme: Educating one another	
Teacher makes a statement that they have learned from the TA and/or they specifically describe what they have learned	<ul style="list-style-type: none"> • <i>Learning from each other</i> • <i>From collaborating with Jessie we definitely helped open each other's eyes to the limitless connections of art and history.</i> • <i>I worked to insure that I used correct terminology as I assisted with the students.</i> • <i>This unit was my first within the IB-TAP project. I have always tried to implement "art" in my units, but working with Mirtes gave me a better idea of the right way to do it.</i> • <i>I love it because you're just learning about different things and different ways that you can incorporate into your classroom life, into your classroom. And when she brought this in, I'm like this is so cool, I would have never have thought about this.</i> • <i>Mirtes is an expert on art. And by learning from her, I'm like wow, I should have conversations with you weekly throughout my life so I can pull great ideas into my teaching. Because we do learn from each other.</i>
Theme: Benefits of co-teaching for students	
Teacher recognizes and describes the benefits of a co-teaching learning context for students.	<ul style="list-style-type: none"> • <i>co teaching enables more individualized instruction and personal interactions</i> • <i>because that's our life. We don't function in life with this is reading. This is what I learned in reading as a child. Or you don't go to the bank/and this is only math. When you write a check you're using all kinds of things to write a check. You need a little math, you need a little reading (co teaching enables teachers to cross disciplinary boundaries).</i>
Theme: Teacher Growth	
Teacher states he/she learned from the collaboration, and/or	<ul style="list-style-type: none"> • <i>It really encourages me as a teacher to know that similar connections could most likely be</i>

specifically describes what was learned.	<p><i>made with other disciplines, such as technology, science, music and more.</i></p> <ul style="list-style-type: none"> • <i>From a standpoint of how I felt, I felt great. There was no feelings of inadequacy or those feelings. It was just I took a seat from a learning perspective and I learned a lot about art this year.</i>
DOCUMENTATION THEMES	
Theme: Media Resources	
<p>Types of media resources that the teacher uses to document units in their T-AIDW's:</p> <ul style="list-style-type: none"> • Text only • Images and text, mostly side by side: images do not always cohere with text. Images are not labeled to provide viewers with description of what the image "tells". • Images and text with labeled images. Coherence between images and text: used to exemplify aspects of the units and student engagement. • Video, images and text are used to exemplify various aspects of units and student engagement • Video, images and text used to exemplify various aspects of units and student engagement, including planning documents and instructional materials • Video, images and text used to exemplify various aspects of units and student engagement, including planning 	<p>Examples:</p> <ul style="list-style-type: none"> • Text only: Avila, O Connor • Images and text: Kriz, Greene • Images/text/planning materials: Parker • Images/text/video: Houtsma (heather) • Images/text/planning materials/captioned images: Houtsma (Tritchler)

documents and instructional materials. Teacher uses student artifacts to reflect, describe learning, make future curriculum adaptations.	
Theme: Completion of Documentation	
The number of completed documentation templates year by year. Teachers complete 2 units per year, so each teacher should have a total of 6 units documented.	
Theme: Documentation Scores on T-AIDW Artifact Analysis Protocol	
Each t-AIDW was scored based upon the IB-TAP Artifact Analysis Likert Scale. Rankings were based upon averaged scores of both units (if both documented) or one unit during year 2.	
Theme: Students using documentation	
Teachers describe student peer critique processes, such as gallery walks.	<ul style="list-style-type: none"> • <i>Group members could be observed standing back, doing a self-assessment, collaborating, and redirecting their efforts. When the groups did a gallery walk to view the installations of the other groups, they were surprised at how different each group met the challenge of using the materials, and they became aware of how unique their group's design was.</i>
Teachers describe how students use their own S-AIDW's, or provide explanations of how students review and reflect on their own artifacts.	<ul style="list-style-type: none"> • <i>Within the journal responses throughout the unit, self-evaluation typically took place. Students honestly praised their own successes and just as easily admitted what did not turn out well.</i> • <i>We didn't really have, like when you're doing a creative artist art project and you have the first drawing, the first draft or the second draft, you have those artifacts</i>

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	<i>to go back to and say “okay, this is where my kids started, and this is where we are, this is where we ended up.</i>
REFLECTION	
Theme: Reflection on practice	
Teachers reflect on their evolving instructional practices within the IB-TAP Units.	<ul style="list-style-type: none"> <i>From collaborating with Jessi we definitely helped open each other’s eyes to the limitless connections of art and history. It really encourages me as a teacher to know that similar connections could most likely be made with other disciplines, such as technology, science, music, and many more.</i>
Theme: Scores on Reflection section of T-AIDW Artifact Analysis Protocol	
Theme: Student Reflection	
Teachers incorporate and document opportunities they create for students to reflect on their own and their peers’ work.	<ul style="list-style-type: none"> <i>The post-video survey developed by the artist allowed students to self-assess and compare with pre-video data. This was a visual example for students and teachers to see their growth and confidence with the new medium.</i> <i>In addition to sharing these reflections orally, the students wrote their reflections on the process of creating this project.</i>
ARTS INTEGRATED CURRICULUM	
Theme: “Elegant Fit”	
Teachers describe synergistic relationship between arts and content areas	<ul style="list-style-type: none"> <i>Art and history are incredibly similar in the way that they both tell stories: it is amazing to come to the realization that art is a wonderful, creative engaging and powerful outlet to learn about history and to tell a story of a people and the times they lived in.</i> <i>More math concepts “popped” up while teaching the unit. My students and I had great discussions about the many math concepts included in the art piece along with how important it is to be accurate or precise in your calculations. We discussed the different professions that include math, especially that of art, engineering and construction.</i> <i>The artifacts created during this project include evidence of math being used to solve</i>

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	<i>authentic mathematical problems that are were solved to answer questions.. Students used proportions, scale factor, measurement, unit conversion as they worked toward accomplishing the artistic goals set forth.</i>
Theme: Evolving instructional practices	
Teachers describe how they (will) balance arts and content areas and describe ways that they could incorporate arts integration in future curriculum units.	<ul style="list-style-type: none"> • <i>Need to do more traditional instruction with arts instruction.</i> • <i>It's almost as if they felt like they weren't accountable for learning the pen and paper, you know, with the testing material, and I had to keep reteaching what we did in the classroom.</i> • <i>I'm gonna hopefully pull some of this into my units later with the architecture and the things that I learned with the art.</i> • <i>It makes me think of things in a different light</i> • <i>I was pleasantly surprised at how well we were able to create a unit that would integrate mathematics and art. I also loved how much math was involved in a creating a technical drawing. I will definitely use what I learned from Mirtes in future classes.</i>
Benefits for students	
	<ul style="list-style-type: none"> • <i>It opens your eyes to the fact that more creative instruction and more hands-on things...it really shows how much the kids take away in the engagement and just the experience.</i> • <i>I think a fresh set of eyes and a different viewpoint really helps the students ...they're used to the way that I teach, so having someone different I think gives them a different perspective.</i>