Finding Passion in Teaching and Learning:
Embedding Literacy Skills in Content-Rich Curriculum

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This study describes a collaboration between the American Museum of Natural History and the Bank Street College Reading and Literacy Program. The collaboration is a response to mandated curriculum that emphasizes instruction in basic skills at the expense of content knowledge acquisition. It is designed to demonstrate ways of embedding instruction in the basic skills of reading and writing into the content of science and social studies curriculum. Participants in the collaboration report that they have gained a deeper understanding of theoretical concepts, learned how to embed skills instruction into meaning-rich curriculum, and come to understand importance of curriculum and instruction that build on children’s knowledge and interests, their language strengths, and their curiosity.

INTRODUCTION

Strangely, the worthy effort to leave no child behind has created an educational system in which the acquisition of basic skills has become more important than the learning of content. High test scores replace content knowledge and critical thinking as educational goals. Ravitch warns that: “[This] overemphasis on test scores to the
exclusion of other important goals of education may actually undermine the love of learning and the desire to acquire knowledge, both necessary ingredients of intrinsic motivation” (2010, p. 229). As teacher educators, we might add that the current emphasis on skills acquisition and formal testing undermines the passion good teachers invest in their work. Without a love of learning, intrinsic motivation, and passion, it is not likely that we can meet our historic goals of preparing students to be economically and intellectually responsible citizens of an increasingly complex world (Dewey, 1938; 1997).

There is an important connection between passion and rigorous learning. In preparing this article, I chanced to speak with a young rabbi about how she came to her career choice, a choice that traditionally includes teaching. She responded that at one point in her college experience, she had wanted to take a very engaging course with an inspiring professor. Recommendation after recommendation from friends and reviews pointed to a course in Yiddish literature. She had no particular interest in this topic at the time; she was focused on politics and philosophy. However, the enthusiastic reviews were compelling. She walked into the classroom and found the professor sitting on a table singing an old Yiddish folk tune. When he finished, he explained that to understand the literature of a people, you must first know its soul. He saw music as one pathway to this understanding. Other arts, or objects, or anything else that lead beyond the surface could also be pathways. Museums are environments in which we can help teachers to understand this kind of connection between soul, passion, and deep understanding and to share that understanding with their students.

A COLLABORATION THAT NURTURES PASSIONATE TEACHING AND LEARNING

For decades, Bank Street College and the American Museum of Natural History (AMNH) have had mutually beneficial relationships through Bank Street’s Museum Education and Museum Leadership Programs. These relationships have provided opportunities to embed structures and processes for “subject-matter” perspectives into the education of graduate students, to increase opportunities for candidate and faculty learning in the subject-matter disciplines, and to identify ways in which content and pedagogy can be effectively integrated.

When Bank Street was invited to participate in the Teachers for a New Era (TNE) initiative, (a project funded by the Carnegie Corporation of New York, the Annenberg Foundation, and the Ford Foundation to examine and explore ways to strengthen educator preparation), the relationships expanded and deepened. AMNH became the primary arts and sciences partner for Bank Street’s TNE project, a project designed to identify the form and content of effective teaching and teacher education. During the first five years of this project, the AMNH community played
AMNH became integral to Bank Street’s TNE efforts, and its presence and value within the institution were soon recognized as indispensable.

AMNH continues to collaborate with Bank Street to provide more and better opportunities for teachers and student teachers to integrate subject-matter knowledge, pedagogical knowledge, and knowledge of children. Together, Bank Street and AMNH have worked to design and instruct a course in the sciences (taught at the museum) that serves the dual purposes of enabling teacher candidates to meet New York State science knowledge certification requirements and of enhancing subject-matter preparation in an area of identified need. Over time that course has become institutionalized.

The collaboration with AMNH has expanded the ways in which Bank Street can provide experiential learning opportunities for teachers and student teachers, helping them to understand cognitively and viscerally the importance of these experiences for the children they teach; modeling ways of embedding skills—in this case pedagogical skills—into content knowledge; stimulating passion for both the instructional model and the content knowledge.

Education at Bank Street College has always been grounded in long strands of theory and research that document and describe the many ways in which children learn from experience (Cole & Cole, 2001; Dewey, 1997; Duckworth, 1987; Froebel, 1826, in Weber, 1984; Owocki, 1999). More recently, studies have shown that experiential learning is equally important in the education of adults (Smith, 1996; 2001).

The goal of this article is to provide a detailed picture of a model of experiential learning co-constructed by Helen Freidus, a professor in the Bank Street College Reading and Literacy Program, and Maritza MacDonald, Senior Director of Education and Policy at the American Museum of Natural History. This model demonstrates the ways in which skills and content can be integrated in meaningful ways for learners of all ages. Beginning as a class trip/workshop taught in the context of a graduate course, The Teaching of Reading, Writing, and Language Arts (Grades K-3), the visit to the museum has become part of an extended unit of study. Classroom experiences first prepare graduate students for the museum trip, just as teachers would prepare their students for such a trip. Literacy, science, and social studies skills and concepts embedded in the class trip experience are brought to the surface through follow-up activities conducted at the museum and in subsequent classes.

These sessions provide an opportunity for participants to learn through exploration and reflection. Pedagogically, they incorporate models of independent and collaborative learning and include both open-ended discussion and explicit teaching. The experiences encourage teachers and student teachers to examine and
reframe their assumptions about what constitutes effective teaching and learning. Through this process, we are finding that energy and excitement are rekindling our students’ learning. In the words of one participant:

This trip made me have such an “a-ha!” moment. Things seemingly “unrelated” to literacy took on a whole other meaning. [I see that] teaching literacy goes so far beyond the walls of the classroom. I realized how experiential learning is actually an essential part of literacy. [Experiences like this] generate, introduce and stimulate the use of oral and written languages for me and my students.¹

And another student wrote:

I want my students to feel as connected to our work as I felt during this experience. Therefore, I will do what I can to work through their interests.

THE CONTEXT: PRACTICAL AND THEORETICAL

Bank Street College is a small, freestanding graduate school of education, founded in 1916 with a commitment to a progressive vision of teaching and learning. At Bank Street, as in many teacher education programs, teachers have always been viewed as professionals. They have never been expected to unquestioningly implement a particular curriculum, and both teachers and teacher educators have always been expected to adjust the form and content of their teaching to meet the needs of the students with whom they work:

In 1930, Lucy Sprague Mitchell, the founder of Bank Street College, wrote: Our aim is to help students develop a scientific attitude towards their work and towards life. To us this means an attitude of eager, alert observations, a constant questioning of old procedure in the light of new observations; a use of the world as well as of books as source material; an experimental open-mindedness; an effort to keep as reliable records as the situation permits in order to base the future upon actual knowledge of the experiences of the past. …[Our goal is to] imbue teachers with an experimental, critical and ardent approach to their work. (Antler, 1987, p. 309)

Historically, Bank Street faculty and students define teaching and learning as a process of developmental interaction (Nager & Shapiro, 2000) that incorporates constructivist (Duckworth, 1987; Piaget, 1932) and social constructivist (Vygotsky, 1978) lenses. According to these perspectives, learning is active and interactive.

¹ This and all other student comments quoted in this article are taken from students’ responses to course assignments for The Teaching of Reading, Writing, and Language Arts (Grades K-3).
New understandings emerge through verbal and nonverbal interactions with people and environments.

Current findings reported in research on culturally relevant teaching (Ladson-Billings, 2000; Irvine, 2003; Peregoy & Boyle, 2008) support beliefs long held in the Bank Street community that there is no such thing as one-size-fits-all instructional methodology. Children are likely to thrive only when their prior knowledge is validated and used as a basis for growth and development. Further support for these perspectives has recently been voiced by Willis (2007), who identifies findings in brain research that document the ways in which the positive effect emerging from engaging learning experiences supports children’s motivations for and success in learning.

In addition, a wealth of literature in the field of literacy documents the importance of building on children’s interests and experiences. Harvey (2002) speaks of the ways in which nonfiction studies engage teachers and students alike to question the world. Szymusiak, Sibberson, and Koch (2008) demonstrate that skills only become meaningful when they help children to learn things they care about. Ray (2006) talks about study as a driving force in teaching children to develop the skills and strategies that comprise good writing. Peregoy and Boyle (2008) identify how and why content-rich curriculum facilitates reading, writing, and language development in English Language Learners.

For many years, Bank Street graduate programs were, in essence, apprenticeship models of teacher education. During the fieldwork year, student teachers and assistant teachers were placed in classrooms that modeled the values and practice of progressive education. In these settings, they observed and participated in units of study that were experience based. The dominant discourse was that of content. Skills were taught to enable learners to delve more deeply into that content. The knowledge, the language, and the skills that children brought into the classroom were extended as they engaged together to learn more about subjects of interest to them and their community.

However, as more and more classrooms in the New York City area have begun to implement models of scripted curriculum, there are fewer opportunities for Bank Street students to have field experiences that match the theory and practice they are studying. Faculty members talk about the importance of prior knowledge and experience as a basis for learning. Students listen carefully and acknowledge that these concepts make sense, but invariably there are voices in the graduate classrooms that say: “I can’t do that at my school. It can’t be done with the children we teach.” Some students say, “This kind of learning belongs to the past.” Many say, “I would like to do that with my kids, but I just don’t know how.” Others plead, “How can I convince my principal that this is worth doing?” Faculty do their best to respond to these students in classes and individual conferences. Many hours are spent in faculty meetings discussing ways to make the relevance of Bank Street’s vision more transparent. However, discussion is not enough. There is a need for students to
engage in experiences that support their ability to understand, create, and advocate for content-rich learning environments.

**METHODOLOGY**

This study has been designed as a narrative case study. Narrative inquiry requires the investigator to interrogate an experience and to probe beneath the surface of common words and practices to understand the how and why of what transpires. Narrative encourages the researcher and the reader to consider: Is a particular interpretation of events to be believed? Is it consistent with experience? Is it supported by theory?

By painting a verbal portrait of teaching practice, narrative makes its nuances open to scrutiny and analysis not only by the researchers but also by others in the field. In this way, narrative makes it possible for research findings to provide insights that are meaningful both to insiders who share the context and outsiders who may have different perspectives on multiple aspects of the research context and findings. The different perspectives and experiences of the outsiders enable them to consider the study’s relevance both to the field and to their own practice (Bruner, 1996; Clandinin & Connelly, 2000; Lyons & LaBoskey, 2002).

Narrative methodology is particularly compatible with the questions guiding this study: What are the outcomes of efforts to integrate museum experiences within a graduate course in the teaching of literacy? What do teachers learn from these experiences? How do they apply these experiences to their own teaching and learning? Do they foster an attitude towards teaching and learning that is both rigorous and passionate?

**DATA COLLECTION AND ANALYSIS**

Through student questionnaires, open-ended reflective statements, field notes, photographs of students engaged in the museum experience, and student work samples and logs, data has been systematically generated over the course of five years of collaboration. The data has then been analyzed and coded. Emergent patterns have been identified using a method of constant comparison, referring back and forth between the data and the literature (Glaser & Strauss, 1967; Strauss & Corbin, 1990).

**THE EXPERIENCE TO DATE**

The Teaching of Reading, Writing, and Language Arts (Grades K-3) is taught to candidates for a Master’s degree in education at the Bank Street College of Education in New York City. AMNH, geographically and philosophically a part of
the Bank Street community, has been introduced as a legitimate and powerful resource for encouraging children and teachers to actively engage in experiences and processes that are central to the ongoing development of language, reading, and writing. Assigned readings and follow-up instruction help teachers to learn how to incorporate literacy content—including, but not limited to, oral language development, phonics and phonological awareness, listening skills, and writing strategies—into hands-on units of study that are relevant to the knowledge and interests of young children.

The museum experience is designed to encourage teachers and student teachers to see themselves as professionals whose role includes the responsibility for designing instruction that meets the needs of all children. The hope is that they will become passionate in their quest to make learning relevant and meaningful. Underlying this goal are the following assumptions:

- teachers can and should question mandated curriculum;
- teachers can and should question the validity of mandated assessment tools;
- teaching is more effective when current research, teachers’ own experiences and knowledge, and the experience and knowledge of students, inform curriculum and instruction;
- teachers may better understand and maximize the learning opportunities for children when they look both within themselves and beyond the classroom doors.

During the first years of the study, the museum visit was seen as a context in which teachers might bring a discussion of integrated curriculum to life. Students responded positively to the experience. They liked the pedagogy that was being demonstrated, but they did not know how to apply it in their own classrooms. One student wrote:

The most helpful part [of the visit] was participating in a faux [model] lesson and determining how to incorporate writing into a museum experience. … In the future, it would also be interesting to see the kind of pre and post-visit work a teacher does to capture and maximize the academic potential of the visit.

And so, gradually, informed by our students’ feedback and our own data analysis, we focused our teaching and extended the ways in which we integrate the museum experience with the theory and skills that are the basis of the course curriculum. Although the activities vary from year to year, we have created a three-session model.
SESSION 1: BEFORE THE MUSEUM VISIT

In this session, we introduce a philosophical grounding for our visit to the museum. We discuss the “disconnect” that so many educators see between that which they believe to be good practice and that which is mandated practice. We put forth Dewey’s (1897) thesis that:

Present education fails because it neglects the fundamental principle of the school as a form of community life. It conceives the school as a certain place where specific information is to be given, where certain lessons are to be learned. … The value of these is conceived as lying in the remote future; the child must do these things for the sake of something else he is to do; they are mere preparation. As a result, they do not become part of the life experience of the child and so are not truly educative.

We look for examples in our own experience that suggest that these words written so long ago may still be relevant, and we look for examples of “educative” experiences (Dewey, 1938) in the work we have done in classrooms.

Then, we turn to a discussion of the content that we will be exploring at the museum. We identify the exhibit and generate a list of questions that we have about its contents. Sometimes, we construct a K-W-L chart as we might do when we begin a content study in a classroom. In this way, we activate our graduate students’ prior knowledge and experience as we hope they would activate that of the students they

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2 A description of the K-W-L chart can be found at: http://olc.spsd.sk.ca/DE/PD/instr/strats/kwl/
teach, and we ask the students to consult AMNH’s educational website (http://www.amnh.org/ology/) to generate more questions.

Finally, we begin to brainstorm and tease out the literacy skills that might be incorporated into preparation for a trip like the one we are planning. We talk about immersing children in relevant literature—stories, poems, nonfiction—that is appropriate for all levels of readers. We discuss the ways in which retelling stories will strengthen children’s comprehension skills and build vocabulary for English Language Learners and native speakers alike. We identify the ways in which this “literary/library research” enables children to identify features of text and become more adept at reading for information; in so doing, they expand their content knowledge as they extend their repertoire of reading and writing strategies.

We point out that word study is an essential part of this process. To do this, we identify engaging ways in which children can be supported in their ability to make meaning from text as they prepare for the museum visit. We build word banks to develop oral and sight vocabulary related to the exhibit we will be visiting. We play games such as sight-word bingo and sight-word concentration to help children become fluent in decoding these words. We identify spelling patterns and look for root words, prefixes, and suffixes. We develop the skills that children will need to be successful in their standardized tests, but we do it in the context of the content curriculum. The museum visit is not an enrichment activity but an integral part of the curriculum study.
SESSION 2: DURING THE VISIT

We begin our workshops at the museum by once again activating the prior knowledge of the teachers and student teachers with whom we are working. We bring them into museum classrooms in which tables have been set up with books and objects related to the exhibit we will visit. We invite participants to explore—touch, feel, read, examine. When an AMNH expert in the field is available, he or she circulates, answering questions and pointing out interesting aspects of the objects.

This exploratory phase is further guided by an object inquiry worksheet. On this worksheet, teachers are asked to do the following:

- choose one object and describe it in words or pictures;
- explain why they chose the particular object;
- tell what thoughts or feelings the object evokes;
- pose questions brought to mind by the object;
- identify possible ways to answer these questions.

Each student enters the museum experience with different prior experiences and understandings about the content of the exhibit. Regardless of how great or how little these may be, the opportunity to explore in multisensory ways before actually visiting the exhibit engages participants and invites them into the learning process. As one student summed it up: “Being able to touch and handle the objects spurred my interest in finding out more about them.”

At this point, we venture forth to visit the exhibit. Here, we encourage participants to explore their interests and to think about how a visit to this exhibit might be meaningful for their students. We provide participants with trip sheets to guide their explorations. On these, they are asked to note three parts of the exhibit they find attractive and jot down a few words or pictures about why they find it enticing. We also ask them to observe other visitors, particularly children, in the gallery. How are they responding to the exhibit? What are they saying? How do they think these visitors’ responses might be similar to or different from the responses of their own students?

Some participants engage in this process independently; some do so in pairs; some alternate being alone with sharing information and observations with classmates. They come to see that just as there is no one single modality through which all children learn, there is no one single form of grouping that is optimal. One student commented:

The social experience of the museum was really important to me. I basically walked around the exhibit by myself for most of the time. Then at one point, after I had just discovered something really interesting from one of the displays, I turned to a nearby classmate and said, “Did you see this yet? It is so cool!” she agreed and suggested I also check out the display on whales. That back and forth
exchange of information and excitement was an important moment for me. I was so glad to have the choice.

Finally, we leave the exhibit and return to the museum classroom. We begin our wrap-up by discussing what interested us and why. We ask participants to make connections to their prior knowledge and experiences. Since the information is personal, there is no right or wrong. Often, people who rarely speak in the college classroom happily share in this discussion. We all come to understand the things we have seen in the exhibit in a whole new range of ways. During one year, when we had visited an exhibit of shells, one student drew connections for us between a shell she had discovered and the name of an Indian coin. Another student described the way in which the inside of a conch shell reminded her of Gaudi’s architecture. Through discussions like this, participants build a common discourse, broaden their frames of understanding, and become more cognizant of the ways in which learning is related to prior knowledge, experiences, and interests. They come to see that even content matter that at first seems uninteresting can engage learners when they have opportunities to make connections to their prior knowledge and interests. As one student explained:

For me this trip was about the importance of situating knowledge that may be thought of as irrelevant into a “meaningful” context. I am not interested in horses, but this exhibit was so diverse in its delivery that it seemed relevant. It is all about finding a way for each child to make meaning.

Following the discussion, students engage in a range of hands-on activities to revisit the information and concepts they gathered when they were in the exhibit. One student described the process:

We sorted and resorted objects deciding the categories as we talked. Then we took the categories to the large puzzle and looked for similarities and differences as we put the pieces together. We also generated a list of questions and looked for answers in the books we shared.

Other participants chose to make origami constructions of mammals, following directions that had been provided. For some, this was great fun; for others, it was great frustration. As they worked, they began to identify the ways in which visual processing, fine motor skills, following directions, and prior experience impacted their success. When more adept individuals worked together with novices, participants began to see the power of collaboration, conversation, and guided learning in staving off anxiety and failure.
SESSION 3: FOLLOWING THE VISIT

This session begins with a PowerPoint presentation that incorporates photographs taken during the museum visit such as the one below. It is followed by a reflective Quick Write, an activity in which students are given 5–10 minutes to respond to the following prompts.

- How was this trip valuable to you as an educator?
- What is the relevance of this trip to this course?
- How might the experience impact the work you do with a child you tutor or with the students in your class?

There are multiple goals for these activities. The course emphasizes the ways in which language development, culture, and experience serve as a basis for reading and writing achievement. The PowerPoint presentation reviews the museum experience and prepares the students for writing by visually recreating the language and the context of the experience. The text in the PowerPoint presentation is minimal; language is generated by class responses to the photographs. Responses build on each other in the reconstruction of past experiences. Those with weak or overloaded memories are not penalized when they engage in the Quick Write process.

The Quick Write is also a strategy frequently used to prepare students for class discussions. In this postvisit activity, it provides individuals with the opportunity to jot down their own personal responses to the experience that has been collectively described during the PowerPoint presentation. It sets the stage for the deeper discussion that will ensue. Both of these strategies are important tools for teachers and teacher educators alike. Before continuing with further class discussion and
activities, these strategies are named, and their relevance to effective instruction is discussed.

The Reflective Quick Write is also a useful tool for gathering data about the ways in which students construct and communicate their thinking. In this case, it provides evidence of what meaning students have made of the museum visit and how they are integrating it with the assigned readings and classroom discussions. The data collection of five years suggests that the museum experience and the structures embedded in it help participants to understand both themselves and their students as learners. One participant described how she became more aware that her own interests and experiences influenced how she interacted with the exhibit and what she learned. She saw that this was true of others as well.

The shared experience and discussion were both important in the development of my metacognitive awareness. I realized how my “lens” shaped the information that I gleaned from the experience. Also, I learned so many new facts and ideas from others who experienced the exhibit through other “lenses.”

Another participant explained how her own experience had helped her to better understand and meet the needs of her students.

This trip brings teachers into the museum and shows the connection between science and reading/language arts. Using manipulatives and other hands-on resources, it puts teachers in the position/perspective of students. This visit reinforced the things we are learning in class (visualization, questioning, etc.) and demonstrated how they can be applied to activities.

She and many others described specific ways in which their exploration and the discussion that followed gave credibility to the idea that there is no one best way to deliver information to students. Literacy curriculum does not need to be solely text-based; skills like sorting and categorizing, building vocabulary, and making inferences can be taught across contexts.

Another student expanded on the value of experiences such as the exhibit visit as she pictured her students’ strengths and needs.

I thought that the museum trip was helpful in that it gave me the opportunity to think about the ways that children’s literacy development is enhanced by hands-on experiences. So many of my students live in tiny apartment buildings in dangerous neighborhoods. They don’t go out often because it is unsafe and their parents work long hours. Therefore, they come to school with less experience and background knowledge than their more affluent peers. So much of the literature that they are exposed to deals with topics they are unfamiliar with. This lack of contextual understanding makes it much
more difficult to interact with the text. Going to a museum provides students with experiences they have never had before. They learn new vocabulary, new ways to describe things, new ways to conceptualize the world, new emotions. These experiences support their development not only of reading but also of writing. They have opportunities to describe things, ask questions, and ponder mysteries. Upon returning from a trip like this, they finally have something to tell about other than “I went to the park” or “I like my mom.”

FINDINGS

This collaboration between a Bank Street faculty member and the American Museum of Natural History is proving to be an important piece of core curriculum within the graduate school program, facilitating a fuller understanding of literacy as a language-based process that builds on and extends each person’s understanding of the world. Across the data collection, formal and informal responses indicate that the museum experience coupled with extended opportunities to deconstruct and reconstruct the personal meaning, content knowledge, and literacy skills embedded in such an experience, provide powerful resources for teacher education. Teachers and student teachers emerge with a deeper understanding of the value of curriculum and instruction that builds on children’s knowledge and interests, their language strengths, and their curiosity. Moreover, the students report a deeper understanding of theoretical concepts, including the social construction of knowledge and culturally relevant learning. They more fully recognize the connection between skills and content, passion, and rigor.

REFERENCES


