

DISSERTATION

MUSEUM AND SCHOOL PARTNERSHIP FOR LEARNING ON FIELD TRIPS

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WE HEREBY RECOMMEND THAT THE DISSERTATION PREPARED UNDER OUR SUPERVISION BY ANURADHA BHATIA ENTITLED MUSEUM AND SCHOOL PARTNERSHIP FOR LEARNING ON FIELD TRIPS BE ACCEPTED AS FULFILLING IN PART REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY.

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ABSTRACT OF DISSERTATION

MUSEUM AND SCHOOL PARTNERSHIP FOR LEARNING ON FIELD TRIPS

School field trips are the most common type of partnership between museums and schools. Museums of all specialties offer programs to children of all ages/grades keeping their physical, intellectual, and cognitive development in mind. By partnering with schools, museums support curriculum standards and supplement classroom teaching. The purpose of this phenomenology was to explain the partnership between a local history museum, the Fort Collins Museum (FCM), and Poudre School District's (PSD) schools for learning on 2nd grade field trips. Museum educators and school teachers are the representatives of the two institutions. Their perceptions and processes regarding museum field trip delivery and integration were studied and the partnership was explained on the basis of purpose and level of interactions.

Descriptive data from four sources were analyzed separately before converging to reflect on the partnership. Educators' in-depth interviews (n = 7) and a questionnaire administered to 2nd grade teachers (n = 72) were the primary data sources to understand their respective perceptions and processes. Additional data were collected from observations of the educators' presentations (n = 6) at the museum and children's written and drawn work as post field trip classroom activities (n = 125).

Educators accept the constraints of short one-time field trips and focus on learning outcomes broader than curriculum connections. They want children to connect with the museum and take away lifelong memories and experiences. For teachers, supplementing classroom teaching and local history curriculum is primary; however, a fun-filled field trip with positive experiences and conceptual learning suggests success.

Educators' and teachers' efforts are coordinated to the extent of organizing annual field trips. The inherent differences between institutions' educational philosophies impact their outlooks of field trips and restrict the partnership from advancing to collaboration and integration levels. While educators focus on providing an experience of history with engaging and hands-on activities, teachers want to see conceptual gains. Children's work depicted interesting historical information and objects they heard and saw on the field trips with or without the efforts of educators.

Findings suggest a coordinated partnership between the museum and schools for annual field trips to supplement classroom teaching. Limited communication between educators and teachers is keeping them from having a shared purpose and restricting the partnership to advance to a collaborated (or integrated) level. Aligned purposes can lead to collaborative efforts (at the museum and in classrooms) for common learning outcomes. A recommendation is made to educators and teachers for a sustained and integrated partnership which includes providing critical thinking opportunities for children. By encouraging critical thinking among children and applying place-based teaching practices before-, during-, and after-the field trips, it is possible to impart *experiential learning* and *learning experiences* as one combined outcome of field trips.

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CHAPTER I

INTRODUCTION

Museums and public schools in the United States were both established in the late 1800s to fulfill the responsibility of welfare and education of the citizens of the country (Hein, 2006a). Although established as educational institutions, museums focused on preservation and conservation while schools became the primary institutions to impart education to all citizens. For most of the 20th century, museum and school alliances for education remained fragmented. A museum is defined as:

a non-profit making, permanent institution in the service of society and of its development, and open to the public, which acquires, conserves, researches, communicates and exhibits, for purposes of study, education and enjoyment, material evidence of people and their environment... (International Council of Museums, 2004, p. 1)

According to the International Council of Museums' (ICOM) definition, museums include historic, art, science, natural history, and children's museums, zoos, aquariums, and many other specialized institutions.

With shift in philosophies in the 1980s, museums re-prioritized their missions and adopted education as the foremost function to serve diverse publics. Through exhibits, tours, workshops, lectures, and outreach, museums attempt to achieve an overarching mission of education for all. Museum educators design and offer enriching programs for all age groups utilizing museums' resources as teaching tools.

With both institutions focusing on education as their primary agenda, museums and schools partnerships are apparent except that their methodologies of teaching differ (Sheppard, 2000). Museums build partnerships with schools to supplement classroom teaching and put their collections to good use. Sometimes these partnerships are formalized by having contracts with local school districts. In absence of a formal arrangement, school teachers may request field trips to supplement classroom learning (Berry, 1998). Field trips to complement classroom

curriculum are the most widespread relationship between museums and schools. To add value, museum educators design programs keeping state and national academic standards and school curricula in mind. These programs may include pre- and post-visit activities, visits by museum staff, and professional development programs for in-service teachers (IMLS, 2002).

According to Institute of Museum and Library Services (IMLS) survey conducted in 2000-01, school programs through museums have shown steady increases since 1995. The majority of programs are offered to upper elementary school children (3rd-5th grades); however, fourth grade has been the largest participating group. Until 2000-01, social studies was the most targeted curriculum by museum educators followed by art, science, and language arts (IMLS, 2002). However, since 2001, introduction of the legislative *No Child Left Behind* has pressured teachers to spend more time on science and language arts and less on subjects such as history and social studies that are not tested on national standards (Jennings & Rentner, 2006; Wills, 2007).

A museum's educational program offerings are directly dependent upon the annual operating budget of the museum (IMLS, 2002). Museums vary in sizes, specialties, endowments, missions, and operating budgets. There are museums in metropolitan cities, like New York, Chicago, Denver, and Atlanta, holding millions of historically relevant objects acquired from around the globe. And, there are museums in smaller cities often located in historic buildings, holding collections related to the area history. One such museum is the Fort Collins Museum (FCM) housed in a historic Carnegie Library building in downtown Fort Collins, Colorado showcasing the history of the Cache La Poudre River region. Like any other museum in the country, the FCM mission is guided by its educational philosophies. The FCM describes itself as:

a collection-based educational institution providing opportunities to learn, reflect, and have fun exploring the cultural and natural heritage of the Cache La Poudre River region. (The Fort Collins Museum, 2006, p. 1)

The museum offers tours, programs, and lectures, organizes events, and conducts school programs to tell history of the region as part of their education mission and service to the local community.

Learning in Museums

Like schools, museums follow Dewey's pragmatic theories on experiential, hands-on and minds-on educational activities, for long lasting impacts (Ansbacher, 1998; Hein & Alexander, 1998). At first museum professionals were curious about *who* is coming to museums and *why*. They focused on *how* to teach diverse publics using collections as teaching tools. With a shift in the museum paradigm from being *object-centered* to being *visitor-centered*, researchers wanted to understand the *what*, *why*, and *how* of learning among visitors as outcomes of museum trips.

Museum researchers do not agree on a single definition of *learning*. They accept multiplicity of learning that occurs in museum settings (Falk & Dierking, 1992). Research suggests that learning in museums combines cognitive as well as affective domains. Learning in museums is free-choice and is influenced by informal experiences that are contextual and constructive. As this free-choice learning is based upon learners' involvement and motivation, it tends to be nonlinear (Falk & Dierking, 2000). Educators use schools' curricula as a common ground for young visitors to construct meaningful learning. As a social activity in informal settings of the museums, learning becomes an outcome of shared views and mediated activities among students, teachers, and museum educators (Falk & Dierking, 2000; Griffin, 2004).

Assessing learning from museum experiences has been as complex as learning itself. Quantifiable accountability in terms of visitor experiences and learning has been a challenge for museums nationwide (Hein, 1998). Research on

learning in museums suggests that increased motivation, curiosity, or positive attitudes among visitors, adult, or children are descriptors of affective domains of museum learning. Knowledge gain is generally one of the underlying objectives for field trips.

For many years museum educators attempted to understand children's cognitive learning and motivation through program intervention and using pre- and post-field trip assessments (Paris, Yambor, & Packard, 1998; Stornck, 1983). Research findings suggest that learning is a function of the visitors' inclination to learn. It builds upon the meanings visitors construct from their physical, social, and cultural contexts (Falk & Dierking, 2002; Packer, 2006).

Tying field trips to school curriculum provides a common ground for school teachers and children to start a conversation with museum educators. School teachers plan field trips to supplement or enrich classroom learning. Educators design programs for schools keeping teachers' needs and curriculum in mind (IMLS, 2002). The outcomes of such activities may or may not always result in quantifiable cognitive gains. Those may spark interest, motivation, or curiosity in young impressionable minds to learn more on topics introduced on the field trips. Like any other successful partnership, museum and school partnerships for field trips could benefit both organizations and children when there is collaboration and communication between educators and teachers. Educators must know what teachers' needs are for their students' experiential learning. Customizing programs with age-and grade-appropriate content and making discovery and hands-on learning a part of field trips can impart long-lasting memories for children. Teachers may reciprocate by providing inputs and feedback on education standards and curriculum changes to educators (Sheppard, 2000).

Purpose of the Study

Educators prepare school programs with specific purposes and learning outcomes while supporting the overarching mission of their museums. Teachers perceive field trips valuable in terms of connections and experiences of the curriculum (Kisiel, 2003a; Sheppard, 2000; Tran, 2007). Research suggests discrepancies between museum educators' and school teachers' perceptions of outcomes and values, and the roles each play for these short one-time trips to museums (Donald, 1991; Kisiel, 2003a; Tran, 2007). Differences were also observed between planning and practice of museum field trips at both institutions (Griffin & Symington, 1997).

Fort Collins Museum offers six on-site exhibit presentations as part of the field trip to 2nd grade children who study local history in their social studies curriculum. School teachers plan one to two hour field trips that include docent-led presentations of three or four restored historic cabins located in the museum courtyard and activities associated with those cabins. The FCM educators tell stories, provide background, and show pictures of the people who owned the cabins over 100 years ago. School children get a glimpse of how people lived in the area nearly a century ago. They learn about how the city of Fort Collins got its start as a military fort and the life of soldiers, the first settlers of the fort in the Cache La Poudre River region. In these stories, children find a connection with Native Americans tribes who were the first inhabitants of the region. Children may explore with their teachers and chaperones, the permanent exhibit inside the museum and do a hunt for fossils in the gallery pit. In addition, children can explore the exhibit gallery on their own by finding artifacts as part of a scavenger hunt.

This phenomenology examined the partnership between the FCM educators and the PSD second grade teachers based on the participants' perceptions and

processes on museum field trips. For any partnership to be synergistically fruitful, it is important that all stakeholders' needs and outcome expectations are matched.

The overarching questions guiding this research are stated here.

1. What are the perceptions and processes of the FCM educators on school programs offered as field trips to 2nd graders of PSD schools?
2. What are the perceptions and processes of the PSD teachers on integrating museum field trips in 2nd grade curriculum?
3. Based on educators' and teachers' experiences of perceptions and processes, what is the partnership between a local history museum and area elementary schools for learning on field trips?

To answer the research questions, the data collection components for the study were (a) in-depth interviews with museum educators, (b) a semi-structured questionnaire with school teachers, (c) observations of educators' field trip presentations, and (d) documentation of children's work (written or drawn) as a validation of learning through post-field trip class activity.

The data helped to understand the process of delivery and integration of the museum field trips from the educators' and teachers' perspectives. The *what, why, and how* of educators' and teachers' roles as facilitators of learning for children on field trips, thus, explained the partnership between the museum and schools.

Operational Definitions

Following are the definitions of the terms that were used for consistency of meaning and context for the purpose of this research.

- Docent: Volunteer guides who staff museums and other educational institutions to carry out various functions and activities. At FCM, docents do administration work as well as presentations for school groups on field trips.
- Formal Learning: Sequential and methodical learning in a school-like formal institution setting.

- Free-choice Learning (FCL): "...learning guided by a person's needs and interests--learning people engage in throughout their lives to find out more about what is useful, compelling, or interesting to them." (Falk & Dierking, 2000, p. 13)
- Informal Learning: Learning which is "nonlinear, self-directed, and self-motivated" and takes in a free-choice informal environment such as a museum, zoo, aquarium, etc. (Sheridan, 2005, p. 1).
- Museum: an institution making a "unique contribution to the public by collecting, preserving, and interpreting the things of this world" (AAM, 2005). From this point forward in the study, the word *museum* denotes a cultural organization in a general way and *the museum* or FCM denotes the Fort Collins Museum.
- Museum education: Museum presentations offered to local schoolchildren to supplement or enrich, or both, their classroom instruction focused on the local area history.
- Museum Educator: *Museum Educator's Handbook* defines a museum educator as:

...any member of the museum staff who has specific responsibility for organizing and delivering educational services, as well as ensuring that education as a function of the museum is kept to the fore in discussion and planning. (Talboys, 2000, p. x)

For this study the word *educator* denotes a person who is teaching at the museum. The term educator includes paid museum staff and trained volunteer docents.
- Museum mission: The overarching guiding philosophy to enhance usefulness of collections through scholarship and research, and dissemination of knowledge to serve the museums' targeted public.

- School field trip: Museums design and offer programs for schools and school-age children. Teachers plan and take their students on field trips to the museum. For this study, the term *school field trip* will be used to accommodate both perspectives.
- School teacher: A person consciously engaged in helping others to learn in a school setting (In part from Talboys, 2000, p. xi). In this study, the word *teacher* will be used for the 2nd grade teachers working for the Poudre School District.
- School: A generic term to denote where formal learning takes place—from kindergarten to university (Talboys, 2000, p. xi). In this study, the word *school* will refer to the Poudre School District’s elementary schools.
- The Fort Collins Museum (FCM): “...is a collection-based educational institution providing opportunities to learn, reflect, and have fun exploring the cultural and natural heritage of the Cache La Poudre River region.” (The Fort Collins Museum, 2006, p. 1)

Rationale of the Study

The AAM’s *Equity and Excellence* report published in 1992 asserts the importance of education through museums to foster public service. This report suggests that every activity undertaken by a museum must have an educational purpose. These educational purposes should be guided by research and scholarship supporting museums’ overarching missions (AAM, 1992). There are suggestions in the report of expanding museum educational services to communities through partnerships with schools. Research suggests that although education is considered the foremost function of museums in the 21st century, museums have yet to realize their potential as educational institutions (Hein & Alexander, 1998). The situation is similar at schools where teachers acknowledge the experiential, meaningful, and complementary aspect of museum education, but the collaboration between schools

and museums remains fragmented (Xanthoudaki, 1998). The four rationales to conduct this study are:

1. In the last 25 years, most research on learning through museum and school partnerships for field trips was focused in the fields of art and science. These studies were conducted at prominent science and art museums around the country. Researchers used program interventions designed specifically for science or art museums to compare pre- and post-visit learning in museums. There is limited research on learning from history museum field trips conducted as naturalistic inquiries without interventions. This phenomenology was a snapshot of the partnership between a local history museum and the area school district for student learning through educational field trips.
2. Three of four museums in the United States are considered small (American Association for State and Local History is working to define *small museums*) (Kotler & Kotler, 1998). These museums are located around the country operating with limited resources--finances, collections, personnel, etc.--and trying to fulfill their commitments to education by relying on volunteers to deliver education programs. Fort Collins Museum (FCM) is one of the smaller museums offering field trips to Poudre School District (PSD) to fulfill their mission of education and public service. Lack of research on smaller local history museums collaborating with local schools and supplementing social studies curriculum standards provides a rationale to conduct this study. The study has implications for museums who offer elementary grade school programs to supplement, enrich, and/or complement curriculum and foster learning. Findings are useful for teachers regarding the potential learning benefits to students from a synergistic partnership with educators.
3. Museums, like any other non-profit organization, are facing competition for resources and accountability of the funds received. Outputs alone cannot

- measure the success of museums' educational efforts, as assessment of outcomes is equally important. Pressure for accountability is high on schools as well with *No Child Left Behind* legislation in effect since 2001. Due to this legislation, students are spending more time on reading, writing, and doing math and spending substantially less time on social studies, a subject not tested on national standards (Jennings & Rentner, 2006; Wills, 2007). In such climates, it would be beneficial to local history museums and schools to collaborate and support each other's educational mission.
4. Majority of museum education and school program studies examined outcomes from either museum educators' or school teachers' perspectives (Griffin, 1998; Griffin & Symington, 1997; Kisiel, 2003a, 2005, 2006c; Price & Hein, 1991; Tran, 2004). Seldom are both perspectives included and compared. Tran who studied pedagogy and goals of museum educators teaching science to school children made a recommendation to compare educators' and teachers' perspectives for further research (Tran, 2004). This phenomenology examined educators' and teachers' partnership through their perceptions and processes to deliver and integrate field trips programs for student learning.

Researcher's Perspective

It all started with a comment a museum educator made in 2005 while talking about the financial troubles of her museum. She said that their museum's school programs were least of the burden for the museum board. The educators had all the materials needed to deliver the content, as they were using the replicas of the original artifacts for teaching. This particular museum had formal contracts with two school districts in smaller towns to offer on- or off-site classes to supplement classroom curriculum. The two educators were satisfied with the number of bookings they had for the outreach programs through the contracts with school districts.

All this happened in the fall of 2005 when I was writing an evaluation framework for the school programs of a renowned textile museum on the East coast. Back home in Fort Collins, I encountered a similar situation at our local museum trying to tell the local history of Cache La Poudre River region. Working as a docent, I observed children enjoying the field trips. Some children were inquisitive, some asked questions, and some looked happy exploring the interesting museum site by themselves, and others tried to fill out their activity sheets (scavenger hunt) as fast as they could. The questions that came to my mind were: How well does the partnership between museums and schools serve their primary stakeholders (i.e., museum educators, teachers, and schoolchildren)? Do museum educators share with teachers a mission and commitment to learning—cognitive, affective, or both, or are these addendums to exhibits museums offer? Do teachers really believe in the value of museum field trips as long-lasting educational experiences? Or it is a day away from regular formal classroom teaching? To get answers to these questions I conducted this study at our area local history museum.

The purpose of this study was to examine the partnership of Fort Collins Museum, a local history museum located in northern Colorado, with the PSD's elementary schools. The partnership was examined as a phenomenology by comparing educators' and teachers' perceptions and processes of integrating museums' field trips for the 2nd graders. This was an investigation laden with only one assumption that the museum trips are valuable educational resources for teachers and students. Implementation and delivery of school programs/field trips involved the following steps (a) pre-field trip process comprising of purpose and preparation for the program, (b) field trip implementation, (c) post-field trip process including assessment of program, limitations, and planning for future (Griffin & Symington, 1997). The assessment of the partnership between the museum and

schools was based on the purpose and interactions shared by the educators and teachers to deliver and integrate the 2nd grade field trips for student learning.

CHAPTER II

REVIEW OF LITERATURE

Education is the primary function of all museums irrespective of their size, specialty, space, funding, or endowments. Teachers wholeheartedly accept the value of museum education to complement classroom teaching. Museums collaborate with schools to promote experiential learning using objects. Yet, professionals agree that museums' purposes to educate through school partnerships have not reached their potential (Hein & Alexander, 1998).

Research revealed a gap between theory and practice of efficiency and effectiveness of museums' educational programs for schools. Recent studies observed that field trips do not correspond well with classroom teaching and, invariably, formal instruction methods are used by educators in informal museum environments (Cox-Peterson et al., 2003; Griffin & Symington, 1997). The differences in educators' and teachers' perceptions of field trips influence the learning outcomes among children (Cox-Peterson et al., 2003; Donald, 1991; Tran, 2007). Educators focus on the broader cognitive and affective gains as expected outcomes of short one-time exposures to a museum exhibit. In contrast, teachers expect conceptual gains as learning outcomes from out-of-school excursions as they tie these trips to curriculum (Griffin & Symington, 1997; Tran, 2007; Xanthoudaki, 1998).

To understand this research, the review of literature is divided into sections to provide background information on the following topics.

- Historic background of museums
- Museum: A place for learning
- Field Trips: Museum and school partnerships
- Museum educators
- School teachers and field trips

- Challenges
- Best practices
- Interactions among educators, teachers, and students
- Research context
- Theoretical framework for the study

Historic Background of Museums

The American Association of Museums (AAM) defines a museum as an institution making a “unique contribution to the public by collecting, preserving, and interpreting the things of this world” (2005, ¶1). Though founded primarily to educate people, for the most of the 20th century, museums focused on growth, care, display, and study of their collections (Skramstad, 1999; Talboys, 2000; Weil, 2002). Initially, museum operations and activities were object-centered and had an inward focus. The activities undertaken started within the museums. What publics wanted to see or what museum experiences drew people to museums were not critically assessed (Weil, 2002).

Those who believed in John Cotton Dana’s philosophies and agreed with his arguments of making museums useful initiated efforts to reinvent museums as community institutions through the 20th century. Since the 1970s, museums started to see results of these efforts. The main functions stayed the same, but public education through diverse collections and programs took priority over conservation and preservation and became the foremost mission as well as challenge for museums (Anderson, 2004; Roberts, 1997; Weil, 2002; Zeller, 1989). The change in guiding philosophy was a step to break from an image of temples guarding objects of historical importance to one of adapting for publics with diverse interests and needs.

Change in Museum Philosophy

There are many labels to define changes in museum philosophy; most museologists broadly consider the shift in philosophy from *object-centered* to *visitor-*

centered (Ebitz, 2005; Roberts, 1997). With increased efforts of community and public outreach, the image of museums shifted from “being about something to being for somebody” (Weil, 2002, p. 28). Museums were asked to provide tangible proof of their usefulness to the local communities and diverse audiences they served. This shift in museum philosophy brought the focus to education as a resource to reach diverse publics (Roberts, 1997).

Changes in museums, however, were gradual and sporadic and were directly affected by internal (e.g., diminishing endowments, untrained staff, etc.) and external forces (e.g., demographics, competition with other leisure activities, etc.). Not all museum professionals saw these forces as threats sufficient to create awareness, acceptance, or action among their staffs to prepare for change. Phillips suggests that by the 1990s, demographic changes, advancements in technology, and audience fragmentation became too critical to ignore and forced museums to redefine their existence (1993). Inclusiveness and connectivity became the keywords to guide the missions and philosophies of every museum in the United States in the 21st century (SI & AAM, 1997).

Focus on Public Education

To fulfill their educational purpose, museums offer programs and activities such as interactive exhibits, lectures, and workshops and organize events for visitors of all ages. Utilizing unique, authentic possessions, and their specialties, museums offer hands-on and inquiry-based educational programs for children and adults to make museum visits fun for all (Kavanagh, 1991; McCarthy et al., 2005; Weil, 2002). To expand services to communities, museums organize outreach activities and take their collections beyond the museum walls. For outreach efforts, museums partner with area schools, loan artifacts, arrange traveling exhibitions, and set up mobile museums or museum extensions (Talboys, 2000).

Kotler and Kotler proposed the term *edutainment* combining education and entertainment as a primary function of museums to attract and be useful to their visitors (2000). By virtue of this term, most visitors consider a visit to a museum primarily a recreational or leisure activity with education as an assumed underlying reason. Museums today are competing with other recreational and leisure activities to attract visitors through interactive exhibits and events suitable for families. School tours make their biggest audience group. Keeping visitors' dual purpose in mind, most museum educators design programs for school children with academic standards and curriculum to supplement classroom learning offered in an informal setting (Falk & Dierking, 1992; Hein, 1998).

Museum: A Place for Learning

Relevancy of museums as places for informal learning has been accepted and undisputed even at the time when there were no educators among museum staff. In the late 19th through the mid 20th centuries, museums shared their exquisite collections from places around the world with their visitors to show how people lived in other places hoping this would result in inspiration. It was solely the viewers' responsibility to show interest and gain knowledge from passive viewings of the objects. Museums made no attempt to generate dialogue with their visitors for the longest time but learning still took place in quiet and quaint galleries (Zeller, 1989). This learning in museums was considered passive, unstructured, and object-centered.

By the mid-20th century, museums started to implement programs based on John Dewey's educational theories which were already in use in public schools. Museums started to hire educators to play a bigger role in the visitor-centered philosophy offering education and experiential learning to all. Much research undertaken at this time was focused on visitors' interests and needs to increase traffic in museum galleries. As educational function topped the list of museum

functions, the research focus shifted toward the process of learning using actual objects.

If education is museums' foremost reason for existence, visitors seldom see learning as their primary reason for visiting a museum, unless it is an organized teaching-learning scenario. Visitors associate learning with school or organized formal settings where the main objective is to impart knowledge (Falk & Dierking, 2000). Museums offer free-choice learning which people derive intentionally (or unintentionally) from informal experiences such as reading newspapers, attending theater, or watching movies, etc. Most visitors consider visiting museums alone or with friends and family to see something new and have fun at the same time.

Museum professionals do not agree on a single definition of *learning*. They accept the multiplicity of learning that occurs in museum settings (Falk & Dierking, 1992). Through multi-sensory, interactive exhibits and activities, museum educators try to help people decipher and construct meanings from their experiences. These self-constructed meanings are synonymous to learning in informal environments (Falk & Dierking, 2000).

Donald explains the difference in learning between school-age children and adults. She suggests that children tend to grasp things differently than adults because of the difference in cognitive development and worldly experiences (Donald, 1991; Singer & Revenson, 1997). From children's perspectives, a museum trip may result in knowledge gain of the subject matter connected to the classroom curriculum. For younger children, the trip may stay as a memory of social and fun-filled visit or outing to an interesting place with teachers and friends (Falk & Dierking, 1997). Unsure of the gains from these one-time trips, museum researchers are now focusing their education efforts on imparting critical thinking skills that are useful irrespective of the subject matter or situation (Burchenal & Grohe, 2007; Felton & Kuhn, 2007; Luke et al., 2007).

Assessment of the learning from museums is as complex as its definition. Assessing quantifiable accountability of visitor experiences and learning has been a challenge for museums nationwide (Hein, 1998). The reasons seen as limitations to assess learning by Bitgood, Serrell and Thompson are listed here.

1. Informal environments provide cognitive and affective learning experiences which cannot be separated in measurable pieces.
2. Museum experiences combine education and entertainment at the same time.
3. Each experience is short and relatively unstructured as compared to experiences of formal learning environments such as schools (Bitgood et al., 1994).

Informal and Free-Choice Learning Environments

Museums attract visitors of all ages through exhibits, lectures, workshops, and interactive programs. The ultimate goal of these activities is to educate and impart learning. The AAM report, *Museums for a New Century*, published in 1984, calls the collections the "heart" and education provided through the collections, the "spirit" of museums (1984, p. 5). Through various activities and utilization of museums' collections educators try to create sensory experiences, which help people decipher and construct meanings. These self-constructed meanings are synonymous to learning in informal learning environments (Falk & Dierking, 2000). The informal settings of museums offer education which is life-long, voluntary, non-linear, and non-sequential, and considered as informal free-choice learning (Falk & Dierking, 2000; Kisiel, 2006a).

Falk and Dierking promote the concept of free-choice learning and suggest that the learning in informal environments is broader than that occurring in formal environments such as schools. A school-like classroom setting for receiving structured education is considered a formal environment. Free-choice learning can occur in any setting, in leisure time, and it is personalized. These learning

experiences are enriching to fulfill individual needs, interests, and requirements (Falk & Dierking, 2002). Falk and Dierking define free-choice learning as:

the type of learning guided by a person's needs and interests – learning people engage in throughout their lives to find out more about what is useful, compelling or just plain interesting to them. (Falk & Dierking, 2006b, p. 1)

Griffin and Symington summarized the definition of informal learning and characterized it through attributes, such as “free-choice; unstructured and non-sequential; self-paced, voluntary, and exploratory; non-assessed and open-ended; and social” (Griffin & Symington, 1997, p. 764). Learning on school field trips to museums falls between formal and free-choice learning. It is guided learning where teachers start a conversation about local history in classrooms with unit teaching and educators at museums give children a chance to experience it through historical objects, exhibits, and hands-on activities. It is a way to make connections with the history of the local community.

Gruenewald’s place-conscious pedagogy suggests that school is not the only learning place, we learn all the time in places wherever we are. Places strongly impact our learning. He asserts, “people make places and places make people.” With education reforms of past decades and passing of the federal *No Child Left Behind Act*, schools are losing their connection with local communities (Gruenewald, 2003, p. 621). A local history museum is the starting place to tell stories of the past which can meaningfully connect with lives of those who come to learn.

People are learners by nature so the brain tunes to anything interesting that is happening in the environment. During our lives we spend comparatively few years in formal school settings, but continue to learn outside the formal environments continually every waking hour (Falk & Dierking, 2000; Hein, 1998; Kisiel, 2003a). Museums adopted the term informal to describe the free-choice and non-evaluative settings for their non-school learning environment to differentiate it from the formal and school-like instructional and learning environments. Dierking prefers free-choice

learning to the term informal as the former explains the characteristics of learning where the latter depicts the setting. The main attributes associated with free-choice learning are that it is nonlinear and engaging and occurs as a result of dialogue with objects, people, and experiences labeled as the physical, socio-cultural, and personal contexts of the viewer (Dierking, 2002).

Museums are informal learning environments where long-lasting connections and experiences are made through object-centered activities. These non-evaluative activities may include aspects of inquiry, discovery, imagination, role playing, and demonstrations which seem to influence visitors affectively (Bitgood et al., 1994). Falk and Dierking researched the process of learning resulting from museums' free-choice and informal environments and proposed a contextual model of learning explained later in this chapter.

Field Trips: Museum and School Partnerships

Museums' educational role to support school teaching and foster learning among children is widely acknowledged among museum and school professionals. Established for the same democratic purpose to educate communities, relationships between museums and schools remained fragmented for most of the 20th century. Field trips, traveling trunks, museum outreach teaching in schools, and teachers' professional development workshops are forms of museums and school partnerships (Talboys, 2000). Despite weaker partnerships, field trips to museums have always been teachers' and students' favorite destinations for outings. Teachers tap into primary sources available as collections at local area museums for experiential and hands-on learning (Talboys, 2000). Building partnerships to connect with classroom teaching through field trips offer resources for teachers and learning gains for students in fields of art, science, history, natural history, and social sciences (Kisiel, 2003b, 2006c).

Although schools and museums operate with different teaching and learning modes and attributes, there is great potential for a synergistic partnership for long lasting educational experiences and learning from field trips (Sheppard, 2000). In formal school environments, children learn through verbal instruction where learning is sequential and evaluative. The learning taking place in museums on field trips is object-centered, relatively less-structured, and non-evaluative (Griffin & Symington, 1997; Kisiel, 2003a; Sheppard, 2000; Tran, 2004).

Learning on Field Trips

Partnerships between schools and museums are complementary where one institution is trying to teach primarily using words and the other using objects. Art, science, history, and social sciences teachers find great resources in museums to complement, supplement, and/or enrich school curriculum with experiential learning (Bergseid Ben-Haim, 2006; Berry, 1998; Kisiel, 2006c; Sheppard, 2000). Depending upon the means available (i.e., transportation, funding, administrative support, types of museums in vicinity, etc.), teachers of various specialties arrange field trips for their students to gain meaningful experiences comprised of cognitive and/or affective domains. The cognitive gains depend on the connections field trips make with the curriculum and affective gains from the holistic experience of the trip (Kisiel, 2005; Sheppard, 2000).

In museums, object-centered teaching and learning create a sensory experience to encourage curiosity, motivation, and interests leading to active participation, which may ultimately result in powerful life-long memories (Falk & Dierking, 1997; Wolins et al., 1992; Xanthoudaki, 1998). Museums have control over the physical setting and teaching methods using objects to provide a novel physical context for children outside their regular school settings. The novelty of a field trip experience combined with object-centered teaching works well with young children (Hooper-Greenhill, 2000). Yet, researchers question the cognitive gain for

young children as museum field trips are short and educators do not have an opportunity to assess measurable knowledge gain (Donald, 1991).

To generate affective gains and positive experiences for children through school programs educators' and teachers' roles become central to field trips. They are the mediators and creators of contexts and facilitators of learning on field trips (Tran, 2007; Xanthoudaki, 1998). Research suggests that teachers who plan field trips and educators who deliver them, both significantly impact student learning. Teachers' pre-visit activities and integrating the trip with classroom teaching motivate children and provide a foundation to build meaningful experiences from the visit. Once children set foot inside the museum, the educators take the initiative and arrange tours and lessons using multiple experiential learning theories (Hooper-Greenhill, 2000; Kisiel, 2003a; Sheppard, 2000).

Educators and teachers, both as mediators, want learning as an outcome of museum field trips. The contrast in teachers' and educators' learning expectations is evident by the fact that teachers' associate learning with cognitive gain while educators attempt to make field trips a sensory experience of affective gains (Donald, 1991). Both, teachers and educators may want learning from field trips; the children may remember the trip as a fun-filled excursion to a historic place (Falk & Dierking, 1997; Wolins et al., 1992).

Some researchers measured cognitive gains by comparing pre- and post-visit scores on topic related concepts (Paris, Yambor, & Packard, 1998). Others focused of short-term recall of information as a measure of learning (Stornck, 1983; Wolins et al., 1992). In the latter types of research, children were asked to recall their museum experiences and conceptual information a short time after taking the trip. Children could recall things such as with whom they took the trip, which grade they were in, but few details of what they actually saw at the museum, which may only be

considered as memories by some researchers (Falk & Balling, 1982; Falk & Dierking, 1997).

In a study published in 1997, Falk and Dierking assessed the recollections of school field trips taken in early school years of 128 participants comprised of fourth (n = 34), eighth (n = 48) graders, and adults (n = 46) (Falk & Dierking, 1997). Majority of the participants (96%) could recall three or more physical and social contexts of their trips. Most could recall at least one or more specifics of the trip such as, when they went, with whom, and where they went. From these findings researchers could establish interrelationships between cognition, affect, and physical and social contexts of the field trips (Falk & Dierking, 1997).

Falk and Dierking explained the connection of long-lasting memories with learning from museum trips made in early elementary school years. They quoted research from neuro- and cognitive-sciences to assert learning as a process and a product combined in one experience. A thorough understanding of the process of learning should come before assessing learning as an outcome. The process of learning may start with memories that are accessed and retrieved as needed to build contexts for further learning. The research suggested strong interrelationships between "cognition and affect, cognition and physical contexts, and cognition and social contexts" (Falk & Dierking, 1997, p. 216). If it is the memories that children take with them from early childhood school field trips, the educators and teachers must make utmost efforts to make these trips remembered as positive experiences in young impressionable minds. Such memories will be retrieved later to build cognition of bigger concepts and experiences.

Learning Theories in Museum Setting

To make optimal use of informal environments and experiential learning, educators incorporate educational theories proven relevant for objects-based teaching. According to Hein and Alexander, an educational theory combines

knowledge, a learning theory, and a teaching theory in one (1998). Educators base teaching on experiential and constructive theories that make longer lasting impact on children (Falk & Dierking, 1997; Xanthoudaki, 1998). Appropriate teaching and learning philosophies that allow exploration to satisfy curiosity are helpful in achieving learning gains on field trips (Griffin, 1998). Researchers suggest that museum education should promote inquiry and curiosity. Spock in his article on museum learning theories recommends:

the museum experience should express to the child that the world is a place laden with curious things well worth exploring just for the sheer pleasure of it. (Spock, 2006, p. 178)

As informal environments, museums build their teaching and learning programs on object-based, interactive, and exploratory practices. Museum learning is different from structured classroom learning as the latter uses transmission of knowledge with an expectation of outcomes identified with conceptual gains. Museums use diverse factors, such as motivation, experience, cultural backgrounds, and social interactions to produce experiential learning for all involved (Hooper-Greenhill, 2000; Xanthoudaki, 1998). In schools, student learning is mostly based on extrinsic motivation, such as grades, and in museums learning is compelled by visitors' intrinsic motivation (Csikszentmihalyi & Hermanson, 1995). Researchers insist on interactive strategies employed by museums to be used in schools for longer-lasting educational gains. In his article *Making Schools More like Museums*, researcher and psychologist Howard Gardner suggested that school teachers follow museums' examples to employ various teaching styles to accommodate multiple intelligences among children (1991).

Literature on museum field trips stresses the experiential aspect of learning for children. To foster object-centered learning, museums educators commonly practice the theories discussed in educational psychology. Various popular educational theories adopted for museum teaching are discussed here.

John Dewey's Theory on Experiential Learning

Dewey was the pre-eminent philosopher and pragmatist of the 19th century, whose philosophies published almost a century ago still apply in the education world. His philosophies and approach to pedagogy have influenced public education in the United States. Dewey's views on "experiential, hands-on, minds-on" learning influenced museums as they re-wrote missions to include object-centered teaching and learning for their visitor-centered environments (Hein, 2006b, p. 190).

Dewey propelled the idea of learning as experiences rather than concepts to build further knowledge and more experiences. Hein summarized Dewey's philosophy on experiential learning as:

experience includes its antecedent and consequences, as well as intentions and goals. To be educative, such experience needs to foster habits of minds, such as inquiry, problem solving, working together with others, and skill for living in harmonious world. But these pedagogic qualities are only means, not ends for education. (Hein, 2006b, p. 190)

In his famous book, *Experience and Education* published in 1938, Dewey stressed teachers' roles as facilitators of learning. By knowing children's strengths as well weaknesses, teachers can help build experiences that are based on past learning (Mooney, 2000).

Csikszentmihalyi's Motivation Theory

Csikszentmihalyi and Hermanson suggested a broader view that builds cognition with an affective aspect of museum learning. They observed that children, especially, are natural learners who absorb knowledge from the nurturing environments around them. Learning in museums involves sensory and emotional experiences which are intrinsically rewarding and motivating to the viewers (1995).

The process of learning suggested by Csikszentmihalyi and Hermanson (1995) is graphically shown in Figure 1. The process of learning starts with curiosity and interest that dictates what the brain is to attend. The experience of interacting

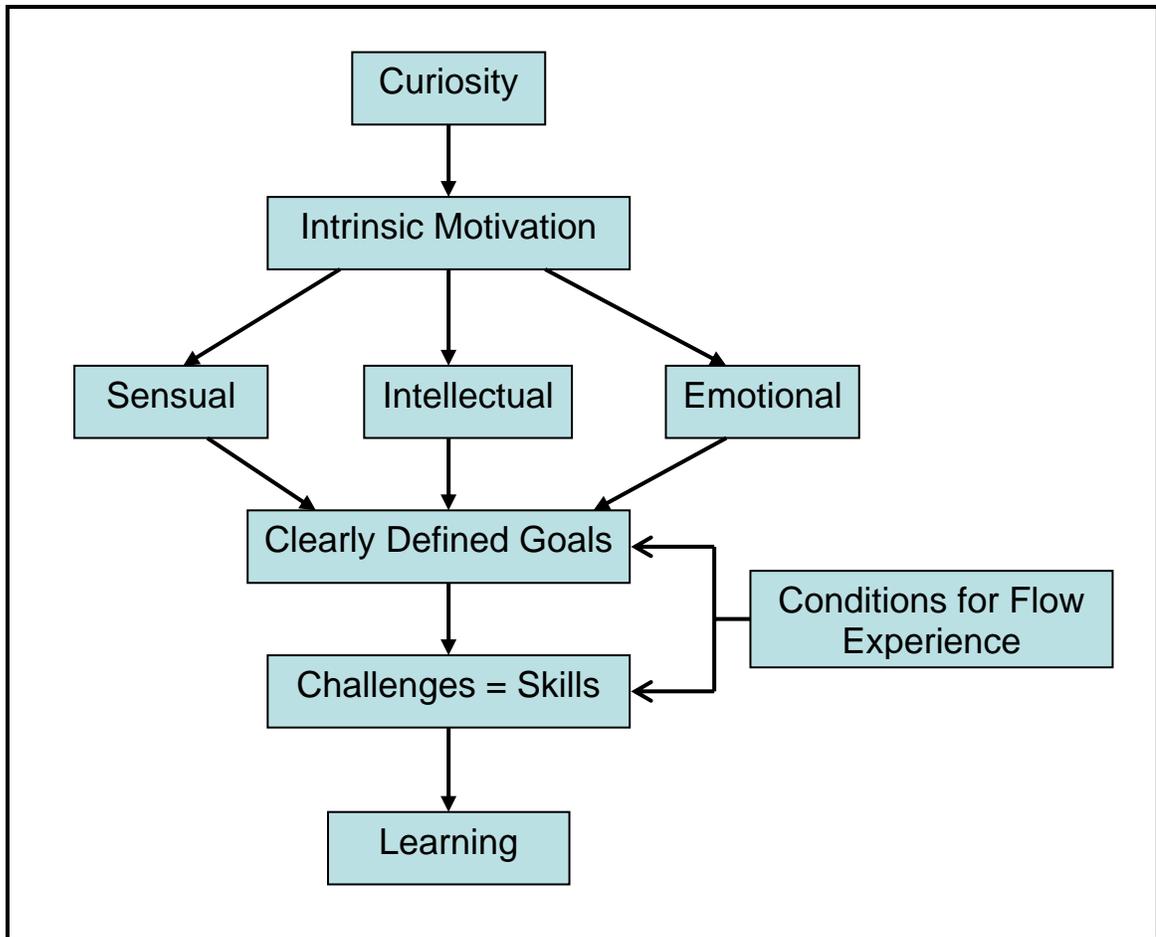


Figure 1: *Csikszentmihalyi's Motivation and Flow Theory for Learning* (Csikszentmihalyi, 1996; Csikszentmihalyi & Hermanson, 1995)

with intrinsically motivating objects engages senses, minds, and emotions.

Csikszentmihalyi coined the term *flow* for such engaging intrinsically motivated experiences and the theory was labeled as the *flow theory*. Rewards of intrinsically motivated experiences are intangible as sheer joy of the experience itself. Clear goals and challenges matched to the skills of the learner are the two ground rules for flow experience to occur. In these conditions, the mind completely tunes to the task at hand and total immersion takes place. A person may want to go back to the same state of joy and discovery which may result in learning by seeking more challenges (Csikszentmihalyi & Hermanson, 1995).

Literature on museum learning suggests that many people visit museums for an experience (Packer, 2006). Teachers who bring students on field trips want classroom connections as well as experiences that school classrooms cannot provide (Cox-Peterson et al., 2003; Kisiel, 2003a, 2006c). Museum activities introduce visitors, especially children, to flow experiences that are intrinsically rewarding and enjoyable. Museums apply Csikszentmihalyi's flow theory while designing exhibits and programs to provide sensory experiences to visitors. These experiences to engage visitors through systematic hands-on activities should be challenging and must match the skills of visitors to keep them engaged (Csikszentmihalyi, 1996; Csikszentmihalyi & Hermanson, 1995; Packer, 2006).

Vygotsky's Theory on Developmental Learning

According to Vygotsky, a child's first school is his or her family. Through interactions with parents, siblings, and other adults, a child gains worldly knowledge as shared experiences. Vygotsky called this cultural phenomenon *internalization* where a child acquires tools to learn the *how* of most things in the near environment. The basics learned through social interactions act as scaffoldings to build further knowledge and learning in layers (Kozulin, 1990; Mooney, 2000). In this aspect, there is a parallel between Falk and Dierking's contextual model of learning discussed later in this section.

Museums apply Vygotsky's cultural mediation theory by giving children historical, cultural, and social mediations through object-centered activities. Through these activities, children construct their own meanings and use the meanings to build larger experiences later in life.

Hein's Model of Constructivist Learning

Hein's educational model of constructivist learning captured the essence of theories of knowledge and learning proposed by preeminent educational philosophers and psychologists namely Dewey, Piaget, Erikson, Luria, and Vygotsky. Of the four

theories Hein proposed, the constructivist and discovery theories are most applicable in museum environments as these are focused on learners and their interactions with objects. Constructivism associates learning with action. According to Hein, active participation of minds and hands in engaging and inquiry-based activities to find answers results in learning. This learning is validated by learners' personal and social contexts and it comes from within by restructuring previous learning experiences. Discovery learning is based on outside stimuli in the form of facts and data for the learner to base generalizations for worldly experiences (Hein & Alexander, 1998).

Contrasts to constructivism and discovery are theories of "didactic and expository" and "stimulus-response" which are traditionally used in schools for structured and linear transmission of facts in repetitive manner. School teachers encourage learning among children extrinsically by rewarding the expected behavior and outcomes (Bergseid Ben-Haim, 2006; Hein, 1998; Hein & Alexander, 1998). Such theories do not apply well in museum teaching where engagements are one time and short.

Falk and Dierking's Contextual Model of Learning

Learning in museums are experiences gained by the interaction with objects (Gammon, 2003). By laying out a contextual model, Falk and Dierking suggest that learning in museum is a result of interactions of three overlapping contexts (see Figure 2).

1. Personal context: What individuals bring with them. This may include individual experiences, interests and motivations, and prior knowledge. Personal context suggests that in a free-choice learning environment learning begins with the individual. The three factors included in personal context are: a) motivation and expectations; b) prior knowledge, interests, and beliefs; and c) choice and control.

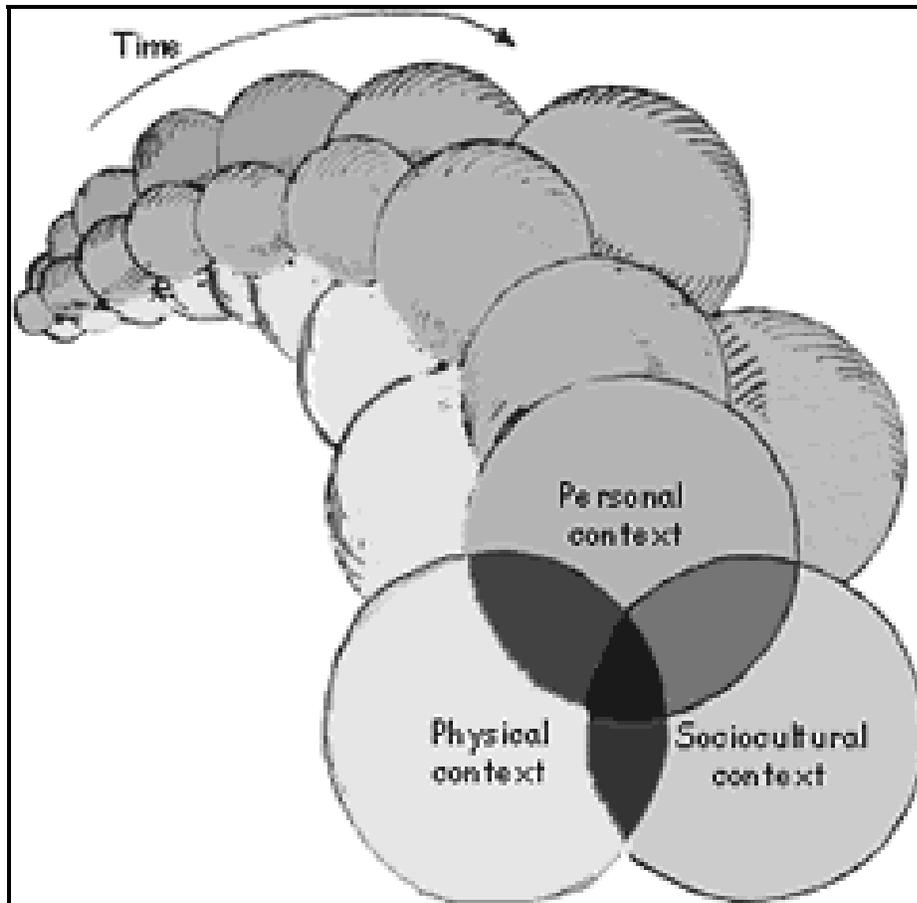


Figure 2: *Falk and Dierking's Contextual Model of Learning (Falk & Dierking, 2000)*

2. Socio-cultural context: What an individual does in a group. This context includes the interactions and mediations that occur in a group taking cultural backgrounds into perspective. This context suggests that learning involves others as well. The two factors included in socio-cultural context are a) within-group socio-cultural mediation and b) facilitated mediation by others.
3. Physical context: Where the learning takes place. The physical environment where learning takes place is important to trigger affective domains of learning. The three factors included in physical context are a) orientation and advance organization; b) design; and c) reinforcement of experiences outside the museum (Falk & Dierking, 2000, 2006a).

Falk and Dierking overlay this model on its fourth arm which is the essence of learning over time. As time progresses, contexts change and experiences are constructed layer-by-layer adding to former learning (Falk & Dierking, 2000). Falk and Dierking's earlier research revealed the long-term memories of museum field trips made in early elementary school years. These memories act as contexts which can be retrieved and accessed as needed to build further knowledge and experiences (Falk & Dierking, 1997). Priest and Gilbert termed it *situated cognition* where learning is build upon past experiences (1994).

As we can deduce from the above-mentioned theories, learning is non-linear and it is dependent on the visitor's interests and motivation to learn. Learning in museums, especially for children, is constructed by active participation in engaging activities in social groups where personal and physical contexts facilitate meaning making. These meanings constructed during museum fields trips sometimes stay with visitors, adult, youth, and children as memorable experiences for a lifetime (Falk & Dierking, 1997; Stornck, 1983).

Museum Educators

Educators were not accepted as true museum professionals for most of the 20th century. Change in museum philosophy and acceptance of museums' educational function as a priority brought a new focus on the educators. Once seen as outsiders or as transplanted teachers by many departments, educators are now important professionals responsible for museums' education mission. Their designated title--Curator of Education--may still include widespread activities that may or may not be directly associated with teaching and may be dependent upon the number of people supporting the education mission of the museum (Talboys, 2000).

Role and Responsibilities of Educators

Educators are professionals concerned with visitor needs, connections with communities, and outreach to those underserved who may not access museums on

their own. Historically, the function of educators was not as widely known or described as the other professions associated with museums such as preservers, conservers, or exhibitors of collections and artifacts (Roberts, 1997; Talboys, 2000; Zeller, 1989). As the museums shifted from *being exclusive* to *being inclusive*, the role and responsibilities of educators received new professional respect. Educators fulfilled a unique position as mediators between a museum and its publics. They were now the interpreters of the collections whose stories need interpretations for museum audiences (Lord, 2007).

Depending upon the size (in terms of annual budget, endowments, funding, etc.), there may be anywhere from one to a team of 10-12 professionals fulfilling a museum's education function. Museums have come a long way since 1984 when Elliot Eisner and Stephen Dobbs published their evaluation of art museum education practices in *The Uncertain Profession: Observations on the State of Museum Education in Twenty American Art Museums*. The study was commissioned by The Getty Center for Education. In their findings, Eisner and Dobbs found a large gap between theory and practice of museum educational functions. The key revelations of the study were:

- No consensus of purpose
- Absence of preparation standards and research
- Lack of networking among professionals
- Insufficient resources and personnel
- Lack of power and professional training among educators (Eisner & Dobbs, 1986)

In 1994, Williams did a follow-up on Eisner and Dobbs's report and found some encouraging changes in terms of educators' power in museums' education decisions and policies, professional training, networking, and communication among educators. Lack of purpose, preparation standards, resources, and personnel were still widespread issues in museums as noted by Williams (1996).

Educators in the 21st century are embracing bigger challenges and roles and making museums more connected to their communities. For these connections, educators are employing varied activities suited for different age groups, socio-economic backgrounds and ethnicities (SI & AAM, 1997). Educators are expected to have much broader academic backgrounds than before to tackle challenges of the millennium. Ebitz recommend having knowledge of art, history, education practices and theory, technology, interpersonal communications, and leadership as required qualifications to provide effective and efficient service to communities and support museums' education mission (Ebitz, 2005).

Educators may play roles which range from being a teacher, program designer, curator, web education specialist, administrator, and liaison for the museum. Seeing future demands and complexities of the roles and responsibilities of museum educators, more universities have started offering graduate and undergraduate degrees with an interdisciplinary focus in museum studies (Talboys, 2000).

Designing museums' education programs, delivering those to publics, and assessing their worth in terms of outputs and outcomes are the most important responsibilities of educators. Educators are responsible for teaching people of all ages who may come to visit the museum alone, with families, or in groups. Educators may design and organize group activities based on museums' collections and specialties. They may teach off-site in schools, colleges, and other organizations as the spokesperson for their institutions (Talboys, 2000). Educators may also organize workshops for school teachers to raise awareness of museums' programs and resources available to complement classroom teaching. Through these workshops, teachers may gain credits to maintain teaching credentials (Penna, 2007).

Museums depend heavily on their pool of volunteer docents to carry out the educational responsibilities due to restricted budgets. Docents are trained to conduct tours and teach school groups. The training must include the content as well as the teaching theories appropriate for museums' informal environments. Although, docents may not be involved in designing and assessing the programs, their opinions and feedback are important for program evaluations as they come in direct contact with publics.

School Program Design

Educators need to consider a number of factors while designing school programs. An age-appropriate program is a first because children can comprehend and relate to things and concepts according to their physical and neurological development (Singer & Revenson, 1997). Connection to the curriculum is another important factor that teachers rank as an important justification for requesting a field trip (Kisiel, 2005).

Museum professionals agree that achievement of program outcomes directly depends on the quality of teaching. How educators facilitate programs and field trips translate into longer-lasting critical thinking skills that students take with them (Luke et al., 2007). Burchnal and Grohe list seven critical thinking skills that educators should encourage through museum programs. These are skills of "observing, interpreting, evaluating, associating, problem finding, comparing, and flexible thinking" (2007, p. 118). Researchers piloted a checklist as a tool to assess the above-mentioned critical thinking skills with children of all ages in six art museums. Thirteen educators evaluated the usefulness of the critical thinking checklist in following five areas.

- fostering awareness and use of critical thinking in museum programming
- identifying areas needing critical thinking focus
- reflecting on educational practices

- training of educators
- assessing museum programs (Luke et al., 2007).

Like teachers, educators should design programs and activities based on developmental theories as proposed by child psychologists such as Piaget. Piaget's theory explains children's behaviors and the reasons behind those behaviors at different ages. His theory reflects upon the realities as a child sees them that may be different from an adult's perspective.

According to Piaget's development theory children learn worldly realities by engaging with objects. The cognitive development stage is determined by the level of intellectual and mental processes a child can handle at a given age. According to this theory, cognitive development is cumulative and children learn to apply *assimilation* and *accommodation* at early ages. They not only learn to apply one concept to other situations (assimilation), but they can also adapt learning from one experience to fit a new situation (accommodation) (Singer & Revenson, 1997). Piaget's four main stages of cognitive development and associated behaviors as listed in Mooney (2000, p. 64) are shown in Table 1.

Table 1

Piaget's Cognitive Development Stages and Associated Behaviors (Mooney, 2000)

| Age | Stage | Associated Behavior |
|-------------------------|----------------------|--|
| 1. Birth to 18 months | Sensorimeter | <ul style="list-style-type: none"> ▪ Learn through senses and reflexes ▪ Manipulation of materials |
| 2. 18 months to 6 years | Preoperational | <ul style="list-style-type: none"> ▪ Idea formation on perceptions ▪ Focus one variable at a time |
| 3. 6 years – 12 years | Concrete operational | <ul style="list-style-type: none"> ▪ Idea formation on reasoning ▪ Thinking limited to familiar objects and events |
| 4. 12 years and older | Formal operational | <ul style="list-style-type: none"> ▪ Hypothetical and conceptual thinking |

According to Piaget's development theory, a second grader would be at the threshold of concrete operations stage or most likely be finishing preoperational stage. In these stages, a child is likely to comprehend logic to some extent through numbers and amounts using mental operations. A child at this stage starts to grasp the concepts of *reversibility*. They can now categorize things according to color, shape, or size using *seriation*. The *egocentrism* of preoperational stage still helps a child to see reality from his or her perspective (Singer & Revenson, 1997). For example, a child may not yet comprehend what 100 years mean in terms of time, but they can understand and identify an aged structure that was built a long time ago by comparing its features with more recent ones. Constructing meaning from personal contexts is an acknowledged behavior among 6-8 year old children according to Piaget's cognition development theory (Singer & Revenson, 1997). Educators may choose to keep the content level at the preoperational stage to include children at different cognitive developmental stages.

School Teachers and Field Trips

Most teachers consider trips to museums, zoos, and science centers important for learning where students can experience objects. Teachers acknowledge the need to link such trips with the curriculum, but are seldom prepared for field trips to influence student learning (Kisiel, 2003b). Griffin and Symington found that half of the teacher participants of their study (n = 29) were able to describe a purpose to the field trip. Less than half of teachers thought the trips were linked to school curriculum. These teachers held educators responsible for the lack of connections (Griffin & Symington, 1997).

Teachers are facilitators of learning on field trips especially for younger children. If they prepare themselves and their students well for field trips, the children will gain experiences lasting a lifetime. Value of a field trip is lost when teachers rely too much on poorly prepared worksheets (Griffin, 1998). Griffin

suggested that teachers should understand and take their role as facilitators of learning seriously. As part of her research on field trips, Griffin proposed *School-Museum Learning Framework* (SMLF), a theory-based model that gave students the control of learning within the parameters that teachers provided (Griffin, 1998). Three basic principles with the teacher controlled parameters of the SMLF model are suggested below (Griffin, 1998).

- Integration of school curriculum--Purpose
- Self-directed learning among student driven by inquiry--Ownership
- Use of strategies appropriate for the museum setting--Choice

Preparing activities to connect classroom teaching with field trips to reinforce museum learning are additional challenges for teachers (Kisiel, 2003b). Research asserts the value of tying museum programs to the curriculum taught in class (Berry, 1998; Griffin, 2004; Kisiel, 2003a; Sheppard, 2000; West, 1998; Xanthoudaki, 1998). Connection to curriculum is the foremost reason and motivation for teachers to take students on field trips as was shown by the case study conducted in Los Angeles area with district school teachers (N = 115). Kisiel's case study revealed a variety of reasons ranging from curriculum connection to fostering new experiences supporting field trips. If connection to curriculum was the reason for majority of teachers (90%), 23 percent of them based success of field trips on curriculum connections. For a majority of teachers (61%), a positive experience for students was a sign of a successful field trip (Kisiel, 2003a).

Teachers acknowledge the value of pre- and post-visit activities as shown by the research on field trips (Falk & Dierking, 2000; Gennaro, 1981). The findings of the above-mentioned case study conducted by Kisiel revealed that most teachers acknowledge implementation of pre- and post-visit activities as an important strategy for successful field trips. While a majority (90%) of teachers could describe their pre-visit activities; less than half (45%) actually prepared more than a

discussion as a post-visit activity or reinforced museum learning (Kisiel, 2003a). Pre- and post-visit activities used by teachers to establish personal and social contexts among students reinforce Falk and Dierking's contextual model of museum learning. These activities foster constructive learning and act as scaffoldings for making further connections and meanings (Falk & Dierking, 2000; Kisiel, 2003a).

Teachers associate learning with cognition resulting in use of worksheets for students to complete on field trips. Students' worksheets portray teachers' intentions and expectations from field trips. Designing worksheets, ranging from fact-finding to extensive step-by-step guides to channel students through museums, may be the only preparation teachers do for field trips. Teachers see worksheets as a way to keep students focused on learning in a novel environment. A well constructed worksheet should act a guide to plant a seed of curiosity rather than quenching it, pose questions for discussion among peers rather than giving them the answers, and set a clear purpose of the activity connecting it with a post-trip agenda (Griffin & Symington, 1997; Kisiel, 2003b). The characteristics of well-constructed worksheets suitable for the levels of the students suggested in literature are listed.

- Connections to post-field trip activities
- Questions posed to examine objects and not only read labels
- Variety in questions by combining long and short, close- and open-ended, written and drawn
- Clear direction to gather information
- Scope for social interaction (Griffin, 1999; Kisiel, 2006b)

Incorporation of the above-mentioned characteristics in worksheets with clearly thought out goals and collaboration educators are the way to organize a successful field trip. Researchers see poorly constructed worksheets as an impediment to learning (Donald, 1991; Griffin & Symington, 1997; Price & Hein, 1991).

Researchers understand the limitations teachers may face in arranging field trips. There are logistical and administrative issues such as parental permission,

administrative approval, funding, children's safety, and chaperone sign-ups, etc. In all fairness, arranging a successful field trip is a daunting task for teachers.

Challenges

Researchers of museum school trips acknowledge factors that work unfavorably for educators and teachers and have a bearing on field trips (Cox-Peterson et al., 2003; Donald, 1991; Galloway & Stanley, 2004). What goes on in a museum depends on the funds allocated to each department. In smaller museums, an educator or curator might be individually responsible for the school programs. Assessing quality of the museum school programs or altering them to benefit visitors' may not be an urgent priority (Galloway & Stanley, 2004).

Tran observed that during field trip presentations educators practiced methods associated with school teaching, which conflicted with museums' informal educational environments. A profession accepted in its own standing for more than 40 years, museum educators need not borrow their practices from schools. They need to practice teaching theories suitable for museum environment (Tran, 2007).

Teachers are restricted by the pressures from districts to show results and to cover content in classrooms leaving little time for out-of-school excursions. Lack of time restricts teachers to invest in pre- and post-visit activities related to field trips. Teachers are burdened by logistical issues such as permissions, child safety, and use of parent volunteers while organizing field trips which leaves little time to focus on the experience of a field trip (Sheppard, 2000).

Best Practices

Museum and educational researchers have conducted studies on learning among children and have found discrepancies between theory and practice of field trip implementation in museums and schools alike. Recent research on museum field trips has observed common issues faced by educators and teachers in science or art museums (Berry, 1998; Cox-Peterson et al., 2003; Donald, 1991; Griffin &

Symington, 1997; Kisiel, 2003a; Price & Hein, 1991; Tran, 2007; Xanthoudaki, 1998). The summary of these researchers' recommendations are listed.

1. Purpose: Educators and teachers should have a well-defined purpose of the program offered as a field trip to schoolchildren. These purposes are the basis to prepare, implement, and assess children's learning. Researchers quoted instances when teachers did not clearly know why (or where) they were taking their students for the field trip (Cox-Peterson et al., 2003; Kisiel, 2003b). This did not prepare students well for learning in informal settings of museums. Educators need a clear purpose to orient themselves with museums' overarching mission and specialty to make the school program a successful learning experience for children. A true collaboration between educators and teachers must start with setting agendas for long-term sustained learning relationships.
2. Preparation: From educators' perspectives, the preparation may include designing an age-appropriate program, preparing the materials and content, such as handouts, replicas of things for hands-on work, etc., and delivering it using student-oriented teaching strategies (Tran, 2007). Mooney quotes Dewey's perspectives and suggest that educators and teachers must prepare materials and activities that support children's learning and development. An activity aimed solely to be fun does not create an educational experience for children. Fun-filled activities should be organized with a clear purpose and should be aimed to foster growth of children. It is worth investing in preparation and documentation for longer lasting learning gains (Mooney, 2000).

It is very common to design museum programs that tie to classroom teaching. Educators use national and state curriculum standards to develop programs and to have common grounds for initiating dialogue and setting a context for the children (Berry, 1998; Floyd, 2002; Kisiel, 2006c). Teachers may communicate their curricular needs with educators to develop programs that

integrate well with classroom teaching to provide experiences not possible in school settings.

Teachers should prepare students for a novel experience by discussing and explaining the purpose of the field trip. Setting a clear agenda helps students construct meaningful experiences that may include conceptual learning. The novelty of the trip may induce some levels of curiosity among students. A study conducted by Falk and Balling to compare third and fifth graders' learning experiences and attitudes revealed that too much novelty in the environment hinders task-related learning especially among younger children (Falk & Balling, 1982).

Xanthoudaki researched school field trips to art museums as a three-part unit where before- and after-trip activities were as important as the actual field trip. The study focused on the role of teachers in successfully incorporating field trips in relation to the following issues.

- Linking field trips to the classroom curriculum
- Preparing students for the field trip
- Organizing efforts to implement field trips in classroom (Xanthoudaki, 1998)

There has to be a collaboration between educators and teachers for preparation of pre-visit activities (Priest & Gilbert, 1994). Some museums prefer to deliver before visit lessons to classroom teachers to make sure that the actual field trip begins at the same point for all students (American Textile History Museum, 2006). Content and language of the presentations should be prepared keeping children's ages and grade levels in mind (Price & Hein, 1991). Pre-visit activities act as motivators to prepare children for an out-of-classroom learning environment (Csikszentmihalyi & Hermanson, 1995; Gennaro, 1981; Priest &

Gilbert, 1994). Orienting students to the venue and its novel setting helps reduce the anxiety of field trips (Falk & Balling, 1982; Griffin, 1998).

3. Implementation: Teachers stress the value of linking field trips to curriculum, while educators' goals are much broader in scope. They stress the value of the museum experiences than fulfilling curriculum requirements. With clear purpose and preparation, educators and teachers should attempt to make field trips pleasant learning experiences for children. Research suggests making field trip a sensory experience by allowing children to touch and explore because that is how they learn (Mooney, 2000). Teachers can facilitate learning by letting children explore within set parameters (Griffin, 1998). Children must have time to interact with educators, teachers, peers, and with objects to construct their own meanings (Bergseid Ben-Haim, 2006).

Worksheets as a means rather than an end may be used to guide and enhance creativity among students on field trips. Educators and teachers should include age-appropriate physical as well as mental rests for children to foster learning in a novel environment (Griffin, 1998). Educators and teachers must attempt to make the elementary school field trips result in strong affective and cognition gains for children as they might be using these long lasting experiences (and memories) as contexts to build larger experiences and later learning in their lives (Falk & Dierking, 1997).

4. Assessment: Assessment of learning for short one-time exposures for educators may be complex, but necessary to gauge the value of the museum programming. Teachers are in a better position to implement post-visit activities and to initiate discussion about the trip to reinforce and assess the gains from field trips. Kisiel supports post-visit class activities to "solidify new ideas and interests" emerging from the field trip (Kisiel, 2006c, p. 7). Research show that the children are able

to recall positive experiences and present rich and elaborate descriptions years after their trips (Wolins, 2000).

Interactions among Educators, Teachers, and Students

Falk and Dierking strongly promote the value of interactions for constructing meanings and deciphering information in a social group (Falk & Dierking, 2006a). Researchers suggest building social bonds and using mediation as one of the important parts of informal and free-choice learning. Whether educators, teachers, or peers initiate the discussion, sharing experiences and using interactions to build knowledge are important to facilitate learning in museums. Teachers are in a position to initiate social interactions before and after a field trip building curiosity and motivation first and then reinforcing the experience and learning using post-visit activities. They can place children in groups on trips to encourage dialogues among peers.

Xanthoudaki stresses the need for interactions between educators and teachers to identify teaching and learning processes at museums for teachers to best synchronize field trips with classroom curriculum for conceptual gains (Xanthoudaki, 1998). Communication and collaboration between educators and teachers are the key factors of strong and mutually beneficial and synergistic partnerships between museums and schools.

Research Context

The American Association of State and Local History (AASLH) suggests that the majority of American museums are considered small and is trying to establish specific criteria to define small museums (AASLH, 2006). The Fort Collins Museum is a mid-size museum by the AAM standards, considered small by its administrators. The FCM, a local history museum, and its partnership with the district's elementary schools is the context of research for this study. The FCM educators offer programs which include museum tours, traveling trunks, and annual events for PSD's

elementary schools. This study focused on FCM field trips to 2nd graders of PSD schools, and examined the educators' program objectives, their implementation, and assessment methods. The 2nd grade teachers' perceptions and processes to integrate field trips were examined as well. These perceptions were compared with the educators' to understand the partnership between the FCM and PSD elementary schools.

Fort Collins Museum (FCM)

The Fort Collins Museum was originally established in the Lincoln Park (where the Main Library is) and opened to the public as the Pioneer Museum in Fort Collins, Colorado on April 26, 1941. The mission to preserve objects of historic Larimer County took about three years to establish under the Curatorship of Ben Dixon (Giddings, 1992). In 1977, the Pioneer Museum was demolished to build the library in its place. The museum made its home in the historic Carnegie Library building (1903-04) and re-opened for community use on August 1, 1977.

Museum Education Mission, Collections, and Exhibits

The FCM mission encompasses all aspects of education utilizing its artifact collection to educate publics through exhibitions, publications, information services, and offering tours and special programs for culturally diverse populations and age groups. The mission statement is build upon its educational service to the community. It states:

The Fort Collins Museum is a collections-based educational institution providing opportunities to learn, reflect, and have fun exploring the cultural and natural heritage of the Cache La Poudre River region (The Fort Collins Museum, 2006, p. 1).

Indian arrowheads and geological discoveries from the Lindenmeier Folsom Man site are part of the original FCM collections. The *Antoine Janis* and *Auntie Stone Cabins* were the first of the acquisitions of the Museum. The *Franz-Smith Homestead* and the *Boxelder One-room Schoolhouse* were acquired and restored, and added to the FCM courtyard later (see Appendix A, Pictures 1-5). Presentations

and activities at the restored cabins and the permanent museum collection are part of the field trip designed specifically for the 2nd graders, as local history is part of the social studies standards (see Appendix B).

Inside the museum building, on the second floor, half of the main gallery houses a permanent exhibit on early residents of the area alongside geological finds of the Lindenmeier Folsom Man site. It is believed the Folsom people passed through Colorado region about 11,000 years ago. The area includes an *archeological pit* that is filled with replicas of fossils buried beneath walnut granules for children to explore. In addition to the permanent exhibits, the FCM organizes special exhibits 2–3 times per year on themes related to local history in the other half of the second floor gallery.

Partnership with the Poudre School District (PSD) Elementary Schools

The PSD elementary teachers bring second graders for docent-led field trips to the FCM to experience local history through the permanent and temporary exhibits and collections. These field trips are arranged by contacting the FCM's School Program Coordinator or administration staff. Teachers may request to modify the duration and/or content of the trip to meet the curricular needs of their students. The field trips last 90-120 minutes depending upon the time visiting groups may have (Personal conversation with the School Program Coordinator in Sept. 2006 during the Docent Training Workshop). In the year 2007, 37 school groups of second/third graders came to the museum for field trips.

FCM School Programs

Committed to education, the FCM offers field trips, traveling trunks, and special summer events to area schools. Only the field trips offered to 2nd grade classes were researched for the purpose of this study. There are four activities that children can participate in associated with each of the cabins. Two activities associated with the Folsom collection and history of the city of Fort Collins take place

in the main gallery along with the fossil hunt in the pit. The six activities and the descriptions of the restored cabins program for the second grade field trips are discussed.

1. *Antoine Janis Cabin and Rendezvous*

Rendezvous were gatherings of fur trappers, the traders of the east, and Native Americans to trade in early-mid 1800s. Antoine Janis was born in Missouri and moved to Cache La Poudre River region to be a trapper and trader in the mid 1800s. He married a Sioux Indian woman and raised his family in the cabin built around 1859. Janis knew many languages and worked as an interpreter for the U.S. Army. In the Janis cabin, children hear the story of Antoine Janis and how he with his wife and 12–14 (the exact number not known) children lived in the cabin (see Appendix A, Picture 2). Educators explain the trading activities that took place at the *Rendezvous*. Children learn hand signs the traders of different communities (Anglo and Native Americans) may have used to communicate and to trade things of necessities. Children touch and feel the beaver pelt and beaver skin hat; calico and muslin; pots and pans; beads and jewelry; and wool blankets. The goal of this activity is to make children aware of trapping and trading between Native Americans and Euro-Americans before Fort Collins was commissioned as a United States military outpost in 1864.

2. *Auntie Stone Cabin and Build the Fort*

Elizabeth Stone came to the military outpost in 1864 to run the mess hall. She cooked and served meals at her cabin (see Appendix A, Picture 3). When the fort was disbanded in 1867, she stayed and opened many businesses in town. Her popularity in town earned her the nickname "Auntie Stone." *Build the Fort* is the activity associated with the Auntie Stone cabin which gives children a glimpse of the life at the fort. Children listen to the excerpts of Luther Remington's diary, a soldier on the military post, and learn about the life of the soldiers at the cavalry

camp. They learn about the buildings and vocabulary associated with the military fort by building a map of Camp Collins with wood blocks.

3. *Franz-Smith Homestead and Farmers in Fort Collins*

A German immigrant, Henry Franz and his wife Caroline built the Franz-Smith cabin in 1881–82 (see Appendix A, Picture 4). The Franz family grew sugar beets and raised sheep for wool, the two main agricultural products at that time. The Hugh Smith family bought the Franz Farm in 1936. That is how the cabin got its name the Franz-Smith Cabin. Like the Franz family, Smiths were growers of alfalfa, corn, oats, and barley. They kept the cabin for 51 years and raised Hampshire hogs, beef cattle, and horses. The cabin was first moved to Livermore area before relocating it to its current site on June 10, 2000.

The school tour to the *Franz-Smith Homestead* focuses on the agriculture industry of the Fort Collins area and life of children working on farms. Field trip groups get hands-on experience of carding wool and grinding corn. They learn about sugar beets, how they were harvested, collected, and loaded on carts by children who worked long hours on farms. The goal is to impart knowledge of farm activities carried out a hundred years ago and about the contribution of children to the farming industry.

4. *The Boxelder One Room Schoolhouse and A School Day in 1905*

The Upper Boxelder School was built in the Rural District 33 in 1905 (see Appendix A, Picture 5). The district served a large area and the children came from far to attend classes for grades one to eight all in one room. The school building was in use until the summer of 1951. The school stood abandoned on the Maxwell Ranch for many years and was accepted by the museum in 1976 for its preservation, care, and a well-worth exhibit for children's activities.

In the presentation at *Boxelder Schoolhouse*, children get a glimpse of the activities those were part of school routine in early 1900s. They go back in time

and enact the Boxelder school activities that include the morning greetings, the roll calls, hygiene inspections, calisthenics, slate writing, and the end-of-the-day poem. These activities give children a perspective of a school life that is quite different from their present lives and schools.

5. *Folsom Culture*

The tour takes place in the main museum gallery where archeological and geological artifacts of Folsom people are on display. Children learn about the first people who passed through the Cache La Poudre river region about 11,000 years ago. How archeologists found information on Folsom Man and their lives are the main objectives of this tour. Children pretend to be archeologists and may dig in the pit for replicas of artifacts. They may use their finds for comparisons with real exhibited objects and imagine their uses as an arrowhead to add to a spear or a chipping tool.

6. *Name the Street*

The presentation takes place in the main museum gallery close to a recent map of Fort Collins downtown displayed on the wall. Children learn the names of the founders of Fort Collins and identify the streets named after them in the old town area. The goal of this activity is to share the history of Fort Collins, its founders' names, and the occupations, so children can learn the old town street names.

Some of the people whose names can be identified with street names are Franklin Avery, Elias Whitcomb, Fredrick Sherwood, Norman Meldrum, and Joseph Mason.

Depending upon the time school groups have, children may attend three or four presentations at the historic cabins and in the gallery and participate in activities as part of their field trips. Docents normally assign 25-30 minutes for each presentation with the activity. If there is more time available, the school groups may explore the exhibits and the gallery checking out things as part of a scavenger

hunt. Teachers may also check out trunks associated with the field trip activities to supplement teaching in classrooms.

Theoretical Framework for the Study

Based on the review of research discussed above, this study is graphically represented in Figure 3. The graphic representation shows the processes museum educators and school teachers use to implement and integrate field trips for student learning gains. Pre-field trip stage is discussed in terms of deciding the purpose and preparation before implementation of the field trips. Post-field trip process includes assessment of the museum programming by teachers and educators. There are challenges at the museum which limit educators to deliver ideal field trips. Educators deal with challenges such as time, funding, personnel, lack of information, etc.

Teachers follow similar process steps to integrate field trips in their classroom curriculum. Teachers face the challenges of time, curriculum content, and logistical issues, etc. in integrating museum field trips. There are underlying perceptions that affect the processing and experiencing of field trips for educators and teachers. The ultimate goal is to enhance student gains which may combine conceptual and affective outcomes using best practices on the trip. The purpose of this study was to examine the partnership between FCM and PSD schools. The methods used to gather the perceptions and processes experienced by educators and teachers are discussed in detail in the next chapter.

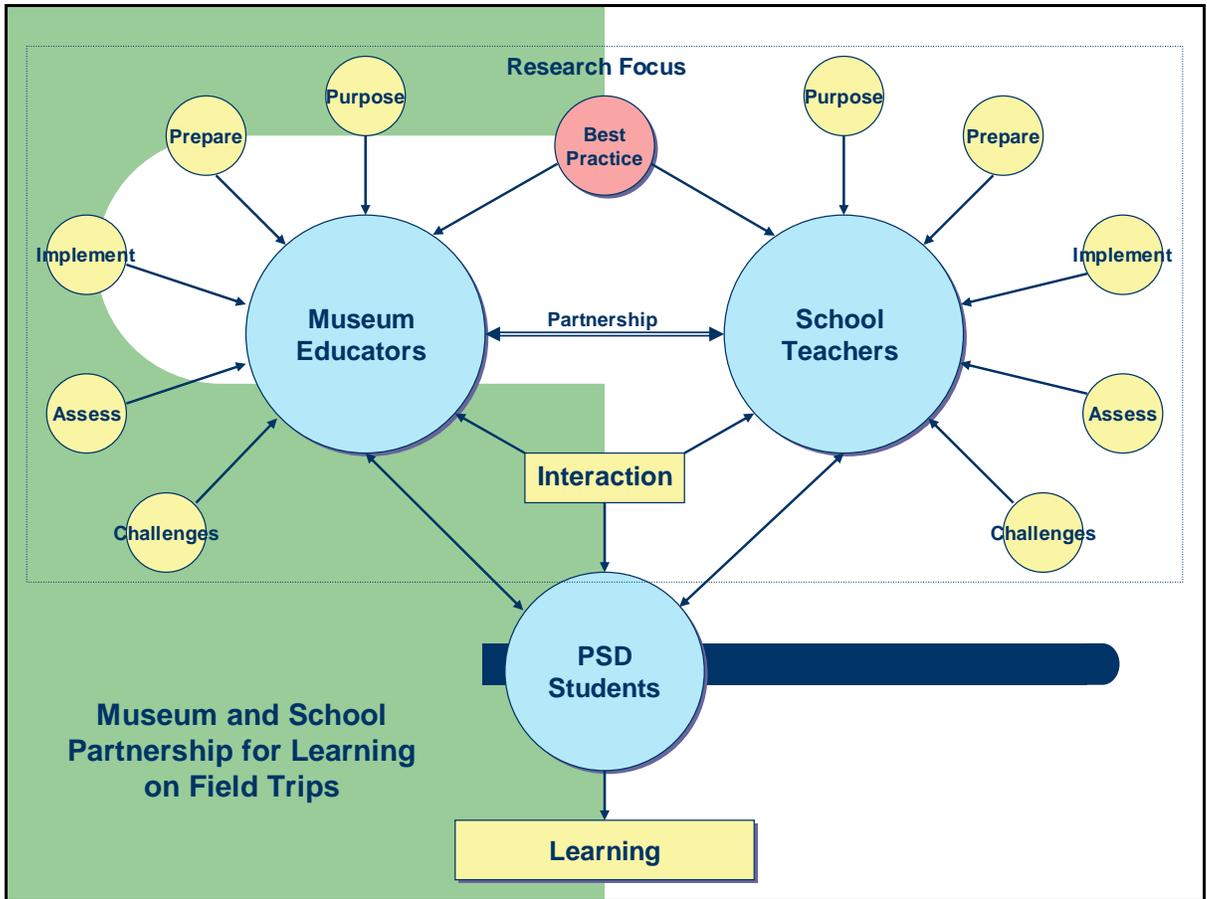


Figure 3: *Research Framework for the Study: Museum and School Partnership for Learning on Field Trips*

CHAPTER III

METHODOLOGY

Education and museum studies examined students' cognitive gains as outcomes of intervention programs to supplement school teaching (Paris, Yambor, & Packard, 1998; Stornck, 1983). Recent studies examined teachers' perceptions and roles in making museum trips successful (Cox-Peterson et al., 2003; Kisiel, 2003a, 2003b) and museum educators' agendas for children's learning on field trips (Tran, 2004). Bitgood, Serrell, and Thompson called "traditional methods of experimental design" inappropriate for museum setting where learning results from informal experiences compounded by cognitive and affective gains (1994, p. 96). Researchers used qualitative, quantitative, or mixed research design approaches to gather in-depth information on school field trips (Griffin & Symington, 1997; Kisiel, 2003a, 2006c; Tran, 2004; Xanthoudaki, 1998). Their data collection strategies included in-depth interviews, surveys, observations, document analysis, and more.

Setting and Nature of the Study

This research was set at a local history museum, the Fort Collins Museum (FCM), located in downtown Fort Collins in northern Colorado serving the area school district, the Poudre School District (PSD). The FCM offered field trips to area elementary schools to share local history, a unit in the 2nd social studies curriculum. Through the school programs, the museum has been providing education to area schools and fulfilling its foremost service to the area community. See discussion in Chapter II for program details.

There could be many ways of conducting social science research. Yin suggested three conditions to make the choice of a research strategy (1994):

1. type of research question(s),
2. control a researcher may have over the situation being researched, and
3. a contemporary focus.

This study fulfilled the above stated conditions for a qualitative research design.

First, the researcher posed the research questions to understand participants' perceptions and processes pertaining to museum field trips of school children, which were descriptive in nature. Second, the researcher did not have control over the museum field trips. There was no intervention involved and the FCM school programs were studied as these were offered to the PSD schools. Last, the phenomenon of partnership between educators and teachers needed re-defining because of a gradual change in museums' and schools' education philosophies and accountability issues (Jennings & Rentner, 2006; Weil, 2002).

Despite widespread research in art and science museum education, how educators' and teachers' perceptions and processes to integrate school field trips influence partnerships between local history museums and district schools was an area not investigated in depth. The success of a partnership depends on collaboration (working together) and communication (talking and listening to each other) and consideration for each partner's needs as well as challenges (Wilkinson, 2008). The target outcome is students' learning through museum experiences.

To become prominent education institutions in the 21st century, museums need to understand and re-define their relationships with other educational institutions. The partnership between the FCM and PSD schools for children's learning was a phenomenon resulting from the interactions of the educators and PSD teachers in the form of 2nd grade field trips. Understanding the integration of the museum school programs by the museum educators and teachers from each partner's perspectives to get to the status of this partnership was the objective of this phenomenology.

Phenomenology

Phenomenology is a research strategy where researchers focus on an interaction or a real-life phenomenon. Social phenomenology is an interpretive practice to explain subjective social experiences and perceptions through meanings underlying natural behaviors (Holstein & Gubrium, 1998). Creswell described phenomenology as a study of a situation through perceptions of participants as they “experience, live, and display the phenomenon” (Creswell, 1998, p. 31).

Understanding a phenomenon from the perspectives of those who experience it, gathering information of the reality as it occurs in a natural setting, and analyzing data objectively by setting aside pre-conceived ideas characterize social phenomenology. Separating pre-conceived notions from objective views of a natural phenomenon is termed “bracketing” (Creswell, 1998, p. 52). To study social phenomena, researchers need to separate it from pre-conceived perceptions and study it as it takes place in its natural setting.

Miles and Huberman listed the strengths of qualitative research methods as best suited when the research is about interpretation of people’s experiences and perceptions and includes the constructs that cannot be explained by numbers (Miles & Huberman, 1994). While analyzing the data, the researchers focus on “interpretation and holism” of the context (Gibbs, 2002, p. 2). The data are expressed, collected, analyzed, and interpreted using language rather than numbers.

A phenomenologist wants to understand a real-life situation or phenomenon and to explain it from the participants’ perspectives. Researchers of phenomenology want to know *what*, *why*, and *how* of a particular phenomenon. The *what* explains the phenomenon the researcher wants to know everything about. The *why* answers the importance of the phenomenon to its participants and other stakeholders, those impacted by the situation. The *how* deals with the functioning or mechanics of the

situation that make the participants' experiences. All three are studied through the perspectives of the people who experience the phenomenon.

The *what* of the phenomenon of the study was the partnership between the FCM and the PSD's elementary schools. The partnership with teachers for field trips is relevant to educators, who offer school programs to complement or enrich the second grade social studies curriculum and to support the museum's mission. These programs are beneficial for teachers as they supplement the social studies/local history curriculum. The purposes of these field trips to each institution explained *why* of the study. The *how* of the museum and school partnership constituted the operations and processes leading to an experiential social reality for 2nd grade children and their teachers. This social reality would have looked subjective to an outsider but the perceptions, processes, and related experiences are meaningful to its participants (Holstein & Gubrium, 1998).

Why and how educators and teachers have been collaborating to prepare and deliver/integrate field trips to influence children's learning was understood using a phenomenological approach. There were perceptions, assumptions, logistical issues, and environmental forces shaping the experiences of educators and teachers. The partnership, through the field trip that FCM shares with PSD schools, as perceived and practiced by educators and teachers, was the primary purpose and interest of this research. What was the status of this partnership, how was it working, and what was the future of this partnership were the issues every museum educator as a service provider and every teacher as a consumer of the field trip programs must understand. The way to study this partnership was to gather descriptive data--written or spoken words, or record observable behaviors--from the people developing, delivering, and using the museum field trips (Taylor & Bogdan, 1998).

Research Design

A research design is a logical plan that connects the research questions via a series of steps from data collection to the conclusions of the study (Yin, 1994). Researchers call it a *blueprint* with four main areas which are (a) research questions, (b) data sources and types, (c) data collection, and (d) data analysis (Philiber, Schwab, & Samsloss (1980) in Yin, 1994). In a social context, a research design serves as the grounding to develop an understanding of the phenomenon under investigation through participants' experiences and meaning making. The first thing that a qualitative researcher would do is to explain "what is (being) studied, under what circumstances, for what duration, and with whom" (Janesick, 1998, p. 38).

According to Holstein and Gubrium, a phenomenology used a "constellations of procedures, conditions, and resources through which reality is apprehended, understood, organized, and conveyed in everyday life" (2005, p. 486). Using these procedural guidelines, the partnership between the FCM and district schools was understood through the perspectives of the educators and teachers who experienced, organized, and delivered/implemented the school field trips. The rich experiences of the educators and teachers were collected using in-depth interviews and a questionnaire survey supplemented by presentation observations and children's drawn and written work.

The following procedural steps prescribed by Creswell (1998) guided this phenomenology to explain the partnership between the FCM and the area elementary schools.

1. Establishing a good understanding of the philosophical perspectives regarding the situation
2. Posing questions to probe the process and perceptions of those who have lived the phenomenon

3. Collecting data from those who directly experience and live the phenomenon through in-depth interviews, survey, observations, etc.
4. Analyzing data by listing and grouping of relevant information or quotes as they relate to the phenomenon.
5. Finding the essence of the situation and writing it in commonalities for all participants. (Creswell, 1998)

An understanding of the educational mission the institutions shared through the school field trips was grounded in research and literature on museum and education studies. The research questions probed the educators' and teachers' perceptions and processes regarding delivery/integration of the 2nd grade field trips. The rich data collected using different instruments were analyzed as suggested in steps 4 and 5 to explain the educators' and teachers' perceptions and processes of the field trips.

Wilkinson's model of workforce partnership explained the level of partnership between educators and teachers. On the basis of shared purpose and interactions, Wilkinson categorized workforce partnerships as (a) cooperation, (b) coordination, (c) collaboration, and (d) integration. These four hierarchical levels of partnership start from cooperation as parallel existence of partners for a common goal and advance to integration level where partners launch seamless integration of resources for mutual benefits (2008).

Sampling and Participants

The FCM educators and 2nd grade teachers in PSD schools were the facilitators of the field trips influencing cognitive and/or affective gains by students from the informal museum environment. Educators at the museum who design and/or deliver school programs and school teachers who bring their students on field trips were the two primary sources of information and data. Their first hand experiences of the field trips generated rich qualitative data.

Museum Educators

In smaller museums, the educators' responsibilities are broader in scope than educational duties. Decisions on educational programs and related issues are made collectively. At FCM, the curator of education, education coordinator, and museum directors have a shared vision for the educational programs. They have experiences relating to different aspects of school programming. These FCM personnel and volunteer docents who deliver most school field trips were the sample for in-depth interviewing. With museums depending on a pool of volunteer docents, not all people leading field trips are involved in the steps of process--stating purpose, preparation, implementation, and assessment--of the school programs. Docents did not have input in the designing of the school programs, nevertheless their perceptions and experiences in the preparation and/or implementation of school field trips were worthy of inclusion as a data source.

School Teachers

The 2nd grade teachers integrate museum field trips in their social studies curriculum, which included a unit on the chronological organization, diverse societies, and economic activities of the local area/region (see Appendix B). Most teachers take their students to the museum and historic downtown on field trips when they teach the unit on local history. These teachers were in charge of planning, implementing, and assessing learning from the field trips. The perceptions of the 2nd grade teachers and the processes they undertook to integrate the FCM field trip explained the schools' and teachers' roles in the partnership.

There were 31 elementary schools in PSD and two charter schools with two to five 2nd grade classrooms and teachers in each school. To collect the breadth of perspectives on museum field trips, 2nd grade teachers (n = 90) were the sample for a self-administered 31-item questionnaire. The sample included 2nd grade teachers of all elementary schools (and two third grade teachers at the Lab School)

irrespective of whether or not they had used the FCM field trips. Lab school had mixed grade classes and second and third grade classes together went on the field trip. The reasons and perspectives of teachers not using the field trips were as important to understand the partnership as the perspectives of teachers who regularly took students to the museum. A short four-question survey was administered to the teachers currently not using the museum field trips.

Research Questions

The process of school program delivery had three broad stages, namely, before (pre-), during-, and after (post-) field trips which need coordination and cooperation between museums and schools (Xanthoudaki, 1998). During the in-depth interviews of educators and in the questionnaire sent to teachers, they were asked to respond on their purpose, planning, preparation, and implementation of field trips. As the facilitators of field trips, educators and teachers were asked of their assessment plan for these field trips. Their overall perspectives on field trips, challenges they face, and the changes that they would want to see in the future were covered in the assessment and feedback sections of the interviews and questionnaires. Several topics and questions on school program design, implementation, assessment, and best practices addressed to educators and teachers in developing instruments stated are shown in Table 2.

The primary research questions guiding the study to gain insights and experiences of educators and teachers and to understand the partnership for learning on field trips are listed here.

1. What are the perceptions and processes of the FCM educators for school programs offered as field trips to 2nd graders of PSD schools?

This question guided the data collection on the perceptions and processes of the educators' on the school field trip design, preparation, implementation, and assessment.

Table 2
Item Development by Phase for Educators' and Teachers' Instruments

| | Phase | Questions for Educators | Questions for Teachers |
|----|--------------------------------|--|---|
| 1. | Purpose (Pre-visit) | <ul style="list-style-type: none"> ▪ What is the purpose of the school program? ▪ Contributors ▪ Underlying issues | <ul style="list-style-type: none"> ▪ What is the purpose of the field trip? ▪ Contributors ▪ Underlying issues |
| 2. | Preparation (Pre-visit) | <ul style="list-style-type: none"> ▪ What preparation do you do design a school program? <ul style="list-style-type: none"> -Curriculum research -Collaboration with teachers -Collaboration with other educators -Handouts -Graphics -Objects -Logistics | <ul style="list-style-type: none"> ▪ What preparation do you do for the field trip? <ul style="list-style-type: none"> -Curriculum fit -Collaboration with educators -Collaboration with other teachers -Starting unit in class -Worksheet design -Telling children -Logistics |
| 3. | Implementation (During) | <ul style="list-style-type: none"> ▪ How do you implement the school programs? <ul style="list-style-type: none"> -Teaching methodologies -Children's learning outcomes -Interactive process -Encouraging questions | <ul style="list-style-type: none"> ▪ What is your contribution during a museum field trip? <ul style="list-style-type: none"> -Interaction with children -Keeping children on task -Encouraging questions -Keeping children motivated |
| 4. | Assessment (Post-visit) | <ul style="list-style-type: none"> ▪ How do assess children's learning? <ul style="list-style-type: none"> -Teachers' feedback -Students' feedback -Educators' observations | <ul style="list-style-type: none"> ▪ How do you assess children's learning? <ul style="list-style-type: none"> -Post-visit activity -Discussion of the trip -Evaluative procedures |
| 5. | Best Practice (Overall) | <ul style="list-style-type: none"> ▪ What do you think are best practices for school field trips? ▪ What would you change to make programs better? | <ul style="list-style-type: none"> ▪ What do you think are best practices for school field trips? ▪ What would you change to make field trips better? |

2. What are the perceptions and processes of the PSD teachers on integrating museum field trips in 2nd grade curriculum?

This question guided the data collection on the perceptions and processes as experienced by the teachers to integrate the field trip in 2nd grade curriculum.

3. Based on educators' and teachers' experiences of perceptions and processes, what is the partnership between a local history museum and area elementary schools for learning on field trips?

Based on the findings of questions 1 and 2 the partnership between the museum and school partnership was explained.

Data Collection

Museum studies combined qualitative as well as quantitative data collection methods to gather in-depth information on school field trips (Griffin & Symington, 1997; Kisiel, 2003a, 2006c; Tran, 2004; Xanthoudaki, 1998) and included in-depth interviews, questionnaires, observations, document analysis, and more. For this study, the following data collection methods were used.

- In-depth interviews with seven museum educators (included four paid personnel and three volunteer docents involved in planning or implementing the school programs/field trips) (see Appendix D-1 and 2).
- Questionnaire with multiple-choice and open-ended response selection administered to the PSD second grade teachers (n = 90) (see Appendix D-3 and 4).
- Focused observations of the educators' presentations during field trips (n = 6) (see Appendix D-5).
- Children's post-field trip classroom activity as written and drawn work (n = 6 classes from three elementary school) (see Appendix D-6).

The first two data collection strategies were directly linked to the research questions. Focused observations of the educator presentations were triangulation measures to validate the teaching practices reported during the educators' interviews. Children's note cards collected through the post-field trip class activities were to validate learning from the museum field trips. An overview of data collection is included in Table 3.

Table 3
 Overview of Data Collection Methods, Sources, Treatment, and Analysis

| Method (Appendix/Dates) | Data Source | N | Required Components | Data Treatment | Data Analysis |
|--|---------------------------------------|-----------------------|---|--|--|
| 1. Interview (D-1 & 2) Mar/Apr 08 | Museum educators | 5 – 7 | 1. Permission from the FCM 2. Cover script 3. Interview schedule | Transcription | Descriptive Thematic |
| 2. Questionnaire (D-3 & 4) Mar/Apr 08 | School teachers | 80 – 100 | 1. Permission from RD Center 2. Cover letter 3. User questionnaire 4. Non-user questionnaire | SPSS & Excel data entry | Descriptive Frequency tables Thematic |
| 3. Observations of field trip presentations (D-5) Mar/Apr 08 | Museum educators’ presentations | 5 – 7 Observations | 1. Permission from the FCM 2. Checklist | Descriptive data | Descriptive Thematic |
| 4. Children’s post- field trip activity (D-6) Apr 08 | 2 nd grade children | ~100 | 1. Permission to gather data 2. Instructions to teachers | SPSS data entry & digital scanning | Descriptive Thematic Frequency tables |

In-Depth Interviews of Museum Educators

Interviewing is a mean to understand people’s feelings, thoughts, and intentions which cannot be directly observed. Perspectives and viewpoints describe people’s actions and behaviors. Data on the perceptions and processes of school programs from the educators were gathered through individual in-depth, open-ended interviewing using an “interview guide approach” (Patton, 1987, p. 111).

The FCM personnel were requested to provide a list of educators (docents included) responsible for presentations on field trips (see Appendix C-1). Then, personal contacts were made with these educators to provide consents, study information, and to schedule times for face-to-face interviews (see Appendix D-1). These 1½-2 hour interviews were conducted as informal conversations based on a

set of guiding questions (see Appendix D-2). The guide served as a checklist of topics to cover as part of the interviews. Participants were given numbers (e.g., Educator 1 through 7 in the order the interviews were conducted) to maintain confidentiality as the interviews were transcribed. Each interviewee received a gift card (\$15) from the store of their choice (the choices were JC Penney, Target, or Wal Mart) as a token of gratitude for their participation.

Questionnaire Survey of School Teachers

A self-administered paper and pencil questionnaire was the tool to survey teachers' experiences on integration of field trips in the 2nd grade curriculum after getting permission from the PSD to conduct this research (see Appendix C-2). The researcher wanted to utilize the strengths of quantitative data collection methods by reaching the maximum number of teachers. It is neither practical nor feasible to interview 90 teachers.

The 31-item questionnaire had questions and statements where responses could be either checked (√) or explained in the space provided (see Appendix D-3). The questionnaire was divided into eight sections relating to aspects of the field trip integration process.

- general information
- personal museum experiences
- trips to local history museum
- planning for the Fort Collins Museum field trip
- preparation for the Museum field trip
- at the Museum
- after the Museum field trip
- feedback on the Museum field trip

Teachers who were currently not using the museum programs to supplement their classroom teaching or were new hires in the school district were asked to fill out a short 4-item questionnaire (see Appendix D-4). These teachers explained the

reasons for not using the museum's 2nd grade field trips. They were also asked to identify alternate methods they were using to meet the local history standards.

The researcher took the questionnaires to each school and requested office managers to place them in 2nd grade teachers' mailboxes requesting completion within a week. After a week, the office managers were contacted to schedule a pick up of the completed questionnaires. Follow-up reminders were made as needed to enhance response rates and reduce non-response bias. To compensate time and efforts, the teachers' names, if provided with completed questionnaires, were entered in a drawing to win one of three gift cards of a local Mexican restaurant (Tortilla Marissa's) valued at \$30 each. The names of three winners were drawn at the completion of data collection. The winners were informed via email and the gift cards were personally delivered. The winners were announced in the district schools via PSD mail system.

Once all the questionnaires were collected, schools' and teachers' names were removed from the surveys and were given a number to maintain anonymity. The contact information was stored in a computer database which had no connection with the survey responses. The contact information will be used to email/post a summary of results to 34 participant teachers who were interested in the findings of this research.

Observations of Field Trips

Using a non-participant observation checklist, six purposively selected museum educator presentations during scheduled school field trips were observed. The observations were made during presentations by different educators at different historic cabins and of the activities during 2nd grade field trips. The researcher observed and recorded teaching practices of the educators using a checklist of the predicted behaviors and actions (see Appendix D-5). Data collected through the observations was a triangulation component to cross-validate the teaching practices

reported by the educators during interviews. This data validated if educators' were practicing teaching theories appropriate for informal setting of the museum. The checklist is based on Tran's research on science teaching in museums (Tran, 2004).

Children's Post-Field Trip Activity

Children's work created as a post-field trip activity, written and/or drawn, was collected to validate gains from the field trips. Sheridan documented children's (4 and 5 year old) learning from multiple visits to children's museums through their drawings. Sheridan believed that the learning behaviors of young children are not always directly observable. She analyzed children's drawings to understand their experiences (Sheridan, 2005).

Teachers of 2nd grade classrooms from different schools scheduled to visit the FCM in March/April 2008 were approached to cooperate and conduct this classroom activity (see Appendix D-6). Six teachers from three schools volunteered to conduct the activity with their students. The researcher took no part in this classroom activity. Teachers conducted this activity with their students within two days of the FCM field trip with no weekend in between. They were instructed to ask students to write and/or draw what they had learned from the museum field trips. Children used 5" x 8" notecards and coloring materials supplied by the researcher for this activity. Lined side of the notecard was used for writing and the plain side for drawings. The notecards were coded in the statistical database (SPSS) on the basis of the exhibits, activities, and objects depicted in children's written and drawn work. Their depiction of the field trip was descriptively analyzed using frequency tables. Students' names or identities remained anonymous to the researcher. The teachers collaborating for this data were compensated with Starbucks (\$10) gift cards.

Pilot Study

The purpose of doing a pilot was to establish face and construct validity of the instruments and to avoid pitfalls during data collection. Suggested changes were

incorporated before filing application for Research Integrity & Compliance Review Office's (RICRO) approval (see Appendix C-3). Here is how the pilots for the instruments were administered.

1. Educators' interview schedule: Experts and peers reviewed the interview schedule to improve questions, language, and/or words to make it a quality instrument.
2. Teachers' questionnaire: A pilot for the teachers' questionnaire was administered with the pre-service students of Early Childhood Education (ECE) Teacher Licensure program at Colorado State University after a content review by an expert panel. These students received copies of a 34-item survey (first draft) including the cover letter and non-user questionnaire on Monday, Oct. 29, 2007 with a request to complete it by Wednesday (Oct. 31). The participants were asked to record the time in minutes they spent filling out the questionnaire. The average time these participants took to complete the questionnaire was 22.8 minutes. Based on the written comments of the participants, redundant questions were eliminated reducing the number of items on the questionnaire to 31. The participants' responses were consistent and no ambiguities of questions/statements were identified.
3. Observation checklist: Co-doctoral students in the Instrument Development class at Colorado State University reviewed the checklist to provide comments on content and construct validity. The checklist was pilot tested at the Fort Collins Museum to observe school field trip presentations scheduled on January 11, 2008. The pilot was tested for the content and formatting of the checklist to make focused observations.
4. Children's post-field trip activity: This activity was pilot tested with two 2nd grade classes at a PSD elementary school scheduled for the FCM field trip on Dec. 19. On Dec. 20, the teachers conducted the classroom activity and asked their students to write and/or draw what they had learned at the museum. Students'

written and drawn responses portrayed the FCM learning experience from children’s perspectives. The teachers found the instructions clear and the post-field trip activity helpful. The data collected through the pilot of the post-field activity helped develop an understanding of how to best analyze children’s words and pictures.

Data Management

Transcribed interviews, close- and open-ended responses to questionnaire items, educators’ teaching practices observation checklists, and children’s work from post-field trip activity required data managing (see Figure 4). Data handling was the first step in analysis of qualitative data in the forms of words, texts, and pictures as expressed by participants (Bazeley, 2007).

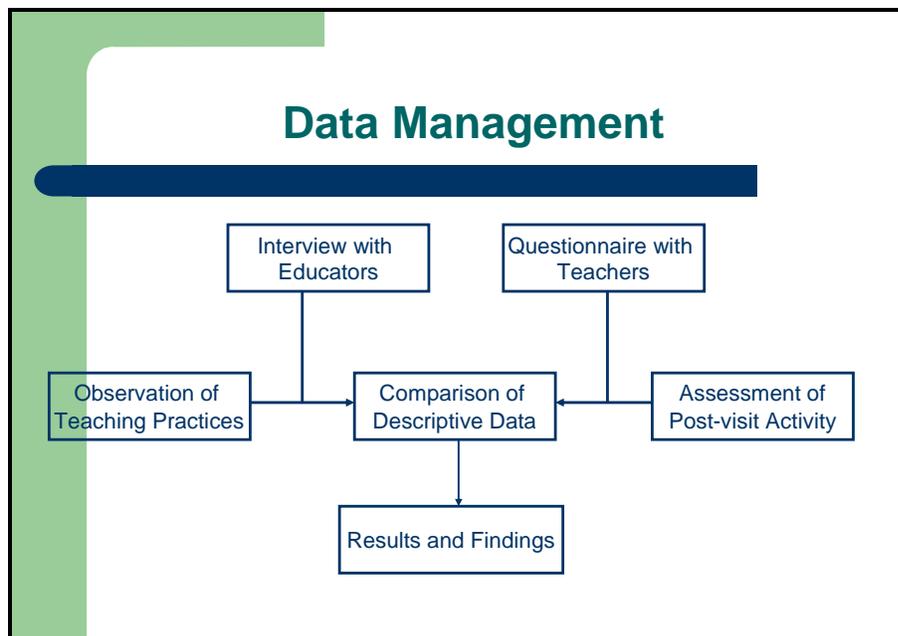


Figure 4: *Data Management for Four Instruments*

Here is how data collected using each of the instruments was managed.

1. Educators’ interviews: These data were descriptive in nature. Digital recordings of the interviews were transferred to a computer. The interviews were transcribed and arranged in a numbered line format for thematic analysis.

2. Teachers' questionnaires: Teachers' responses on choice questions were coded and entered in SPSS for tabulating frequencies and descriptive statistical analysis.
3. Observation checklists were analyzed collectively and descriptively to explain presentations, formats, styles, and preferences.
4. Children's post-field trip activity: Contents of the children's drawn and written work were entered in SPSS to record frequencies of the cabins visited and objects seen and remembered from the field trips.

Thematic Analysis

Thematic analysis is a process to organize and interpret descriptive information using common or contrasting patterns. It is particularly useful for open-ended data collection methods such as interviewing, semi-structured and open-ended questionnaires, observations, etc. This data organization method fosters communication and dissemination of findings in a language common to potential readers (Boyatzis, 1998).

Descriptive data from the four sources were analyzed separately before converging these to reflect on the partnership between the FCM and PSD schools. It gave the researcher an opportunity to analyze each set of data solely from the perspectives of its source (educators or teachers). The steps of the analysis were as follows.

1. Educators' Interviews: The interview data was analyzed for themes in relation to the stages of the research framework on the FCM side of the partnership. These stages were (a) purpose, (b) preparation, (c) implementation, (d) assessment, (e) assessment and feedback, and (f) best practices (see Figure 3). The analysis generated an understanding of the educators' experiences regarding perceptions and processes of the school field trips (RQ: 1).

2. Teachers' Questionnaires: The choice responses were analyzed using frequency tables for the prevalent patterns in relation to the research framework stages. Open-ended responses were tabulated separately and examined to generate the response patterns. The analysis generated an understanding of the teachers' experiences regarding perceptions and processes of the school field trips (RQ: 2).
3. Observation Checklist: As each presentation was unique and tailored to the needs of visiting school groups, it seemed appropriate to discuss the presentations and teaching collectively organized as tables. These presentations were analyzed to identify teaching practices devoted to collective and hands-on learning among children. As this was a triangulation component, the observed patterns were compared with practices reported by the educators during interviews.
4. Children's Post-Field Trip Activity: Children's words or drawings collected through the post-field trip classroom activity were analyzed by first coding in SPSS database. The coding was based on the frequencies of exhibits, activities, and objects children depicted in their written and drawn work. Their affective responses (e.g., *I loved the field trip* or *I had fun on the field trip*) were also entered in the SPSS database. The frequencies were used to quantitatively examine and explain children's experiences of the field trips.

Once each set was analyzed individually, the generated themes or patterns were converged. Comparison of educators' and teachers' perceptions and processes pertaining to the field trip purpose and interactions explained the partnership level between the FCM and PSD schools (RQ: 3). The status of the partnership between the FCM and PSD schools explained *what* and *how* the phenomenon was experienced by its participants to benefit student learning. It shed light on the field trip aspects that impact student learning. Discussion included recommendations and suggestions

for the educators and teachers to strengthen and advance the partnership to higher levels.

Measurement Validity and Reliability

A research protocol must establish validity and reliability of a naturalistic inquiry to ensure quality and accuracy. Instrument validity refers to the accuracy of the data collected to describe and measure the identified constructs or variables. In this study, the interview schedule and questionnaire were valid as these gathered data on perceptions and processes of educators' and teachers', respectively, as was the intent of the researcher. In research, establishing reliability refers to the precision of the measures to be consistent and dependable if administered repeatedly under the same circumstances. Researchers offered alternative terms such as trustworthiness, credibility, dependability, confirmability, transferability, etc., ultimately these referred to the same thing. Creswell (1998), Yin (1994), and Miles and Huberman (1984) preferred using validity and reliability for social science research.

Construct Validity

Construct validity was ensured by establishing consistent definitions of constructs keeping subjective measurements in check. The researcher collected data using triangulation of sources, expert reviews, or "chain evidence" to ensure construct validity (Yin, 1994, p. 34). Experts reviewed the instruments for the content and pilots were administered for three of the four instruments. Observing field trip presentations was a method to cross-validate educators' self-reported teaching practices. Analysis of children's work collected as post-visit class activity was used to validate students' learning gains.

External Validity

External validity refers to generalizability or transferability of the findings to similar settings, situations, or phenomena (Yin, 1994). The research context here

was a local history museum offering field trips to second grade classes to complement the social studies curriculum. There was a scope of transferability to local history museums and schools districts in similar contexts offering educational programs and field trips to school children. With the growing trend of “client-service provider” relation between schools and museums (King, 2007, p. 78), findings provided an understanding on how to bridge the gap between formal and informal learning provided at these educational institutions.

Internal Validity

Observations for field trip presentations and the children’s post-visit activity were the triangulation components to cross-validate educators’ (interviews) and teachers’ (questionnaire) responses. In addition, educators’ and teachers’ responses were compared descriptively to examine the partnership in pre, during, and post-stages of school field trip delivery/integration between the two institutions.

Reliability

Establishing reliability of an instrument provides assurance that the instrument is dependable and consistent if used repeatedly (Creswell, 1998; Yin, 1994). Researchers employ various ways to ensure instrument reliability in descriptive studies like this one:

1. operationalizing constructs firmly grounded in research,
2. defining constructs and using them consistently,
3. keeping thorough records of research design and protocols,
4. gathering rich data from participants, and
5. using a variety of sources and questions.

Multiple reviews with experts and piloting with potential (interviews and questionnaire) and actual participants (checklist and post-field trip activity) were used to establish the instruments’ reliability. Refinement of language and wording to

avoid ambiguity and misinterpretation was a priority in the development of the instruments.

Summary

The primary purpose of this study was to understand the partnership between the FCM and PSD schools from a phenomenological perspective. The phenomenon was being examined through the perceptions and processes as experienced by educators and teachers. This was done to examine the partnership when both institutions aim for student learning as their ultimate goal. Educators' and teachers' perceptions and processes were gathered using in-depth interviews and questionnaire surveys. Additional data were collected using an observation checklist and children's post-field trip activity. The data from four sources were analyzed separately before converging them to explain the partnership for students' learning on field trips. The discussion of findings is presented in detail in the next chapter.

CHAPTER IV

FINDINGS

This chapter presents the findings of the data collected through the interviews of educators, questionnaire surveys of teachers, field trip presentation observations, and children's post-field trip activities administered in their classrooms. The descriptive data from the four sources were analyzed separately before being compared and contrasted to reflect and explain the partnership between the FCM and PSD schools.

Museum Educators' Interviews

To understand the perception and processes to deliver 2nd grade school field trips at the FCM (RQ: 1), in-depth interviews of educators took place in March and April of 2008. Interviews were 1½-2 hours long. The venues and times for the interviews were chosen by the interviewees. Four of the seven educators interviewed were employees of the FCM and three were docents (volunteers trained to conduct field trip programs). The discussion of the educators' perceptions on 2nd grade field trips includes their profiles and quotes from corresponding interview sections.

Museum Educators' Profiles

Until recently the museum profession was dominated by people who advanced by gaining hands-on experiences without academic backgrounds in museum related studies. This is changing as museums' missions to provide education has started to dominate their operations to conserve, display, and store objects of historical provenance. With this shift in mission, there is a growing demand for museum professionals with diverse academic training in museum studies.

Interest in Museum Education

Among the seven interviewed, two of the educators had degrees in museum related studies. These educators earned degrees in Public History with a focus in Museum and Archives and Natural Resource Interpretation. Two educators advanced by gaining experience in variety of museum operations. Among two other educators, one had 14 years of experience operating and managing historic sites as a Registrar and Assistant Director of a museum and another brought 20 years of experience to FCM. He credited his interest in teaching children to fond memories he had of his school years. His teaching style was influenced by the teachers he had in school and the television personalities such as Mr. Rogers, Capt. Kangaroo, and Jim Henson.

Among docents, personal interests in teaching or history were their reasons for involvement with FCM's school field trips. A docent taught second grade at a local elementary school for 21 years. Her personal interest in teaching evolved into seasonal "school marm" at the Boxelder Schoolhouse and contributor to FCM's children programs 18 years ago. She wrote and prepared the props and a trunk for the *Boxelder Schoolhouse*. After retiring from teaching three years ago, she started volunteering at FCM year around. She also contributed in the making of *Fort Collins Before*, a PSD developed DVD, that comes with a manual and is available to all 2nd grade teachers to supplement teaching.

Another docent had been using FCM as a teaching resource for her three home-schooled children for the past nine years. They, as a family, "have just been going to FCM for number of years, enjoying the programs" when in Fall 2007 she was pursued by the FCM staff to participate in the training to become a field trip docent. The third docent started volunteering at FCM eight years ago because of her interest in history. She feels that it is her responsibility to share with children how this small town evolved into a city. She explained her reason to be a docent at the museum.

The reason I started being a docent at the museum is because I am interested in history. I have lived in Fort Collins since 1935. So, I have seen much change and yet, what was going on before I arrived is important too. So, my goal in being a docent is to teach our 2nd graders about our wonderful Poudre Valley and what a privilege it is to get to live here.

Museum Work Experience

Museum work experience, whether in the form of an internship, on the job training, or training to be a docent, was present for all educators. People who are academically trained to work as educators started as museum volunteers, moving into paid internships, before landing permanent part-time or full-time museum positions. Diverse experiences with museum-related operations gradually lead to higher administrative positions. One of the educators worked as a volunteer, interned at FCM and other area museums, and coordinated school programs in her part-time position before taking a permanent position of managing archives, the area in which she earned her master's degree.

Another educator managed a museum store, coordinated volunteers, school programs, and events at a much larger museum after completing her bachelor's degree in Natural Resource Interpretation. Four years ago, she moved to Fort Collins and was hired at FCM as the Curator of Education. The position at that time encompassed responsibilities that were broader in scope than managing the education department. Earlier the museum did not have a collections curator or an exhibit designer. As the museum hired more staff, the programs evolved to include interactive components and gradually, her position became more specific. Now she coordinates exhibit-related programs for diverse audiences. Her other responsibilities include coordination and organization of programs and events such as "Museum after Hour series for families at 5–7 pm on Fridays, Discovery Carts on 2nd and 4th Saturdays, summer programs, and Indian markets, junior curators, etc." Her role in 2nd grade field trips is limited to occasional teaching.

Educators suggested that at FCM there is no hierarchy to define the jobs in the education department. There are assigned responsibilities with each position, but it is not uncommon to share advice or work if it gets the job done. Experienced educators are expected to help and do presentations when there is a docent shortage for scheduled school field trips, although it is not their job responsibility. Like most museums, FCM depends on its volunteers for various operations such as conducting school tours and managing the gift shop and the front desk. The coordinator of school programs schedules volunteer docents to conduct school field trips and tries to assign their preferred presentations.

Educators' profiles suggest that personal interest in museum related operations, work with children, and sharing history appeared to be common motivating factors among the educators to get connected with the museum. Next sections detail educators' perceptions on procedural steps of program delivery of the FCM field trips as shown in Figure 3 in Chapter II. Deciding the purpose of 2nd grade field trips is the very first step of the partnership between the FCM and PSD schools.

Purpose of Field Trips

A unit on local history as part of 2nd grade social studies curriculum is the main connection between the Fort Collins Museum and PSD elementary schools. It also ties to the Fort Collins Museum's mission to be an educational institution for the local community.

we are an educational institution and so it is written in our mission. That alone sets the tone of what we do. If we are talking specifically about 2nd grade field trips, then it is circular thing. The fact that PSD teaches local history in 2nd grade, make us tailor our school field trips to 2nd grade level.

These field trips are designed to supplement the 2nd grade social studies curriculum and standards. Through the field trip programs, educators want to impart an understanding of the events that shaped the history of Northern Colorado. The

depth of the museum learning that educators would like to see as a result of their programming is captured in this quote.

Understanding of how different events are related. How the advent of agriculture coming into northern Colorado really shaped up and started bringing in some of the industries. That means what was traditionally fairly dry environment happens to building the irrigation, all these techniques have changed. The agriculture coming in the region brought in an agricultural college, which is now CSU. That college brought in technology to the area, a lot more people, the town continue to grow, [and] a lot of it is connected to few simple events. You never know what event is going to have significance. How your actions may or may not affect ownership. That's the lesson that students learn, whether they taking it at a conscious level or if it is anything that stays within their minds. They will have a good understanding that cause and effect is something that happens to all of us on a daily basis and they as an individuals have something better than to live with that.

Teaching local history has much broader and intangible outcomes that educators try to achieve through the field trip programs. It is about having good out-of-classroom experiences and gaining memories that someday and in some way may influence children and their lives. Field trips provide learning through hands-on experiences, whether these are in the historic cabins in the museum courtyard or with the bones and arrowheads in display cases in the museum gallery. Here are the outcomes that educators expect for children from their museum field trip.

My purpose at the museum is to get students excited about learning what their local history is: whether and why a street is named after certain person, who that person is. Or as they are coming through the museum, they are visiting the various historical buildings in our heritage courtyard being able to see exactly how that building and the people who occupied these buildings have helped shape this area of Northern Colorado into what it is today. That's the connection where students have a chance to see how this community got its start. They learn about the past and appreciating what has come out of it.

if they actually see an object or a house that make it a reality and have a better understanding of what they are learning [in classrooms]. It's not just a story, a fiction, and it actually seems real the things they see inside the cabin or if looking at an art or seeing photos from 100 years ago.

We are just supplementing it to provide an enjoyable hands-on experience that goes a step beyond what the classroom can't do.

We spend that [time] to spark their interest in history and get them excited about it and hope they want to learn more on their own or they come back to a museum in the future. Just make them interested in museum and history.

There is a great saying you cannot move forward unless you know where you have been. And I agree with that. I think it just enriches their lives. It gives them more of a great foundation of the place that they live.

Getting children “jazzed-up”, turning them into “lifelong learners”, and letting them make their own “connections” with historic cabins or people from the past are some other affective outcomes expected of these 60–90 minute field trips. It is a hope that field trips will spark children’s interest in history and they would visit with their families and friends again to learn more. Educators agree that visits to the museum go beyond classroom teaching and make stories of people and things of the past “real” for children.

Museum Teaching/Learning Philosophy

For 2nd graders, learning through fun and engaging activities is important because “children are pretty quick to take on something that’s educational and make it fun, (but) are slow to take up something that’s fun and make it educational.” Fun and learning are not always proportionately related as one educator shared his philosophy on teaching museum programs.

if you are really out there and working to the best of your ability, as an educator, you should try to find the ways that are not just playing games, but it has to be relevant to the students, otherwise it is just a task they might memorize for a test but they are not learning something (long-term). Memorization of facts is actually learning for a special or a day-to-day situation.

Children learn better when they can see and touch things. An educator explained giving an example from one of her Antoine Janis presentations:

One child I caught once just smelling the walls in the cabin. So I said, “What are you doing?” And he said, “I just want to see what it is like to have just wood as a wall.” That just touched me because I thought he was experiencing this with all his senses.

Field trip programs are “artifact- and research-based” designed to fit 2nd graders cognitive and developmental age. Aspects of fun and enjoyment are integral to teaching in an informal environment to get children’s attention and keep them focused. It is not about how much educators know about the topic, it is about how they deliver information to young audiences.

My philosophy is that education means having fun while you are learning and also paying attention. I feel that education is an opportunity for you as an educator as a facilitator. How much students can learn by my idea of teaching is not lecturing on all the things that I know. But, really it would be my job that students would learn.

Although educators are teaching the content related to the curriculum, field trips to the museum are about making abstract ideas real for children by “immersive” experience. Educators agreed that learning experiences among children would not be linear and each child would have a different experience from the field trip.

Each student will get something different, one may come in and what they are experiencing is a day out of school on field trip. Others student may come in and decide that working on the farm as a child are things I have very a fond memory of.

The ultimate goal is to make sure every child takes something with him/her, no matter how small an impression that might be.

my hope is that those images or those words they heard are burned in their little minds and they will call them back again and again as they continue to study or as they just continue to live here. Every time they come to Old Town, they would go, “Oh, there is that old Miller Bldg, Mom. I know about that.”

Educator 7 thought a field trip for 2nd graders is an event. Being out from school with teachers and friends makes field trips special to the 2nd graders. She shared her observations on children’s behavior on field trips.

I don’t know, you see there is some camaraderie. You especially see little girls holding hands and they are walking and looking forward to whatever it is going on.....it’s a day that is special and different is my feeling.

Field trips programs changed over the past 4–5 years with staff re-organization and experienced educators coming on board. These changes have been instrumental in the evolution of the 2nd grade field trip programs keeping children’s physical and cognitive development in mind.

Program Evolution

Fort Collins Museum has offered field trips to school children for more than a decade. The purpose of providing history of the local region to children was established long before the current staff was hired. As an educator recalled:

[the] purpose had been established....That had been pretty well established with the woman that was before me, she worked really closely with teachers in designing these programs because they wanted local history which is what they are learning in 2nd grade so they wanted a field trip to go on with that in 2nd grade.

Earlier tours matched the PSD social studies curriculum using a number of short informative presentations which were difficult “for docents to memorize and deliver.” A docent recalled that about eight years ago when she started volunteering at the museum, one educator took children in a big group, showed them around, and handled all the presentations alone which she thought was quite overwhelming for one person. These previous presentations were not very interactive. Educators who contributed in revamping the school programs describe the early field trips as:

The kids will be sitting there and the docent will go like talk..talk..talk...And they go on to the next exhibit and they will talk...talk..talk...There wasn't a lot of interaction. So, but it was easy to learn that tour because it was basically memorizing and not getting the kids engaged as much.

There used to be a walk and talk tour.....a guide walks around and talks!

Although, previous educators consulted with the PSD social studies curriculum coordinator, not all old programs matched the curriculum standards well. One program had toys and games of the past, which was fun for children but “didn't really target these kids to tie into their curriculum as well as some other programs.” The toy program is now being offered as a trunk that can be checked out by teachers to be used in the classrooms.

With increases in staff hours and hiring of experienced educators, 2nd grade field trip programs became interactive and better aligned with the curriculum. Educators evaluated the programs in terms of content and format that needed attention. Curriculum standards were researched to see how the existing programs could be tailored to maximize compatibility. Program format was changed to meet the history and social studies standards and to supplement classroom teaching. Educators contacted teachers for their opinions through the Curriculum Coordinator, a conduit between the two institutions. Educators 1 and 3 reworked each program to meet as many curriculum standards as possible. The objective shifted toward overall support of the curriculum.

we tried to tie more into with the specifics of what they are learning in their curriculum, what we can support, you know, tap the teachers, support CSAP testing, and learning from objects.

The earlier museum training manual which “was about 3 inch thick and there were so many programs that it was hard for docents to learn them all. And they (docents) weren’t excited to learning them all.” Refinements served students and teachers by providing quality programs and time at the museum, and made it easier for docents to learn information packaged into activity-oriented programs each with a set format. Reducing the number of program choices for field trips and merging activities together made it easier for teachers to select the three most appropriately matching their curriculum needs.

They were only here for an hour and half and I just wanted to make sure that they have quality time and also to make easier for docents to learn.

Programs that were not needed (such as the program with games and toys) were organized into trunks that teachers could check out and use as pre- or post-field trip activities in classrooms. This helped educators to focus on the pertinent historical information they wanted to get across to 2nd graders using interactive and engaging activities during their field trip.

Why even spend the time here at the museum which they can easily do in their classrooms. Pretty much the same if they checked it out. So, we did not lose all that stuff but it was good to maximize what time they have here with they can get from the museum. It is a long hard process.

Changes were made throughout the museum. A new permanent exhibit depicting Colorado floods was installed and cases with sewing machines, fire helmets, etc. were replaced with artifacts that related specifically to Colorado history. Teachers resisted this change initially, but started to accept it as the cabins were established in the museum courtyard.

So, to have more impact on the kiddos, that’s when the courtyard theme came up. That’s what made teachers happy enough too.
Field trip’s primary purpose remained the same, but each program

synchronized better with what children were learning in classrooms. With simple

interactive activities such as building a layout of Camp Collins with wooden blocks or adding street names on a downtown map, programs became more engaging.

To attain the museum's purpose of field trips, *what* to teach and *how* to deliver are the core of museum programming. Without these it would not be possible to meet the desired educational outcomes. The *what* associates with the programs that complement the state curriculum standards. It gives teachers a justification and reason to schedule field trips. Educators researched the curriculum and tried to match as many social studies standards as they could to justify the need for their programs. Educator 3 believed that:

we have a responsibility that if teachers are coming out of their classrooms they are getting something that is beneficial to their students. There is a curriculum match you have to have.

There are PSD teachers who bring their 2nd grade classes every year. When and how teachers fit these field trips in the curriculum are their choices. Some teachers plan museum field trips at the beginning of the unit, where others conclude the unit with a field trip.

The *how* associates with the delivery of programs. Museums need educators, who are passionate about history and teaching, to effectively deliver the 2nd grade field trip programs. These are people who believe that education goes beyond teaching facts and encompasses fun and interactive experiences to create long-lasting memories. As many of their counterparts around the country, FCM functioning relies on volunteer docents. These docents are trained to teach museum programs designed by the museum's professional educators.

Teachers' Involvement in Deciding Purpose

Original designers of the programs had initially asked teachers for their input and feedback through the PSD curriculum coordinator. Lately, there is no direct communication between educators and teachers to re-affirm the purpose of museum field trips. Current educators want the situation to change by organizing a teachers'

open house to encourage partnership with two-way dialogue. Collaboration with teachers is important to achieve teaching and learning goals.

if we are doing something that we think is really amazing but it is not tying in with what the teachers needed. It really doesn't help them.....if we are doing our jobs and the teachers are doing their jobs, and if we are able to work together, I would like that!

Museum administrators support the idea of communication between educators and teachers to help both institutions achieve their respective teaching and learning goals.

I think part of the challenge having somewhat of the captive audience of 2nd grade...in order to talk out extensively with 2nd grade teachers to see what their goals are, and how are we meeting them, and if not how can we do better. And if are meeting them, how can we do it better. Because they all come here but really, they have a couple of other options they can get real footage through.

Educators' Perspectives on Teachers' Agenda

Teachers are as much part of the equation as educators in this partnership. Educators' purpose of the museum field trip is dependent upon teachers' agendas as to why they are bringing students to the museum. Museum field trip programs premised on the teachers' purpose--"want some back up to do some hand-on stuff, some support what I [teachers] have been talking about in the classroom, an illustration"--as Educator 4 suggested. It requires some planning on the part of teachers as to what purpose they want served through field trips.

If you are a teacher, you plan a trip like this. You are really looking for an experience that will be an extension to what you are teaching in the classroom.

Educators thought many 2nd grade teachers are "are very-very cognizant of what the curriculum is...What their local and state standards are...They want to really see how their [students'] experience will get to that." Some teachers bring their students because they have been doing it every year. It is a habit to have an annual field trip to the museum.

Educators tailor their presentations based on what children already know about the topic. If children are at the beginning of their local history unit in school,

educators start field trips with introductions to the topic. Although it is not an explicit expectation that children should have prior knowledge, it certainly helps to set the presentation tone. Educator 7 supported the idea of teachers preparing students for the field trips which makes children more interested in topics being discussed at the museum.

Some of them already come prepared and so have done their groundwork for me. I always feel that I am just putting a stamp of approval on what they have put out in the class that this time for real and this time we just discuss that. I think that's the main difference of coming to the museum and staying in the classroom.

Educators try to reinforce information to students who have been studying local history in school. If educators don't know what children have done in school prior to the field trip, they assess children's background knowledge at the beginning of each presentation by asking questions and gauging interest in the topics.

It's interesting you can tell immediately where the students are in their study of history when they come for their field trip. Some use it as a culminating activity and some start out there or by pure luck when you get the bus.

In contrast, Educator 4 suggested that field trips do not build on prior knowledge and students with different knowledge base can benefit equally from those.

even if they weren't learning or doing the Fort Collins history in their classrooms, they would walk away with some little info about Fort Collins history of...you know, may not those specific names and that kind of stuff, but, the notion of people who had lived here for a long time. And, that's big!

Educators think that at present their programs are meeting the needs of 2nd grade teachers and students quite well. Educator 1, who worked on fine-tuning of these programs, said:

I feel we really had it tightened up.....we have a great group of docents who understand the fun side of this and how to make it interesting and know also to sneak in those little 3-4 points that we would have on each program that kind of remind them.

Educator 2 thought that "the programs themselves are very tried and true."

Research-based program built upon the rich local history of the area is the foremost factor contributing to its popularity among teachers. Success of the museum programs and their fit with social studies curriculum for 2nd graders is evident from

the fact that most district schools include the field trips in their calendar. Educators' perceptions regarding teachers' field trip satisfaction are based on teachers' positive assessments.

Preparation of Field Trips

This section presents educators' perceptions on the preparation that they undertook to make the field trips programs ready for implementation. These programs were designed and offered to schools before the current educators joined the museum. As discussed previously, current educators included hands-on activities to make programs cognitively and developmentally appropriate and engaging for 7-8 year olds. Before educators implemented any changes, they reached out to their peers at other area museums to learn about the school programs these museums were offering.

Partners in Museums

Fort Collins Museum is one of many local history museums in Colorado that offer programs to supplement school curriculum. Educators visited other museums in Northern Colorado, including Boulder History Museum, Greeley Museum, and Longmont Museum, to understand what and how they are doing their school programs.

we also researched other institutions and their programs. It is really good to know especially since we have so many great museums around here to see what these other education coordinator in the same boat and are doing the same things what we are doing to make teachers happy, to make kids are happy and do a little teaching in there. So that was a big part of it.

Fort Collins Museum educators found help by attending Educators' Roundtables Chapters for the region. They learned the processes others had used and the problems and frustrations their peers faced in implementing school programs, which were similar to those FCM educators were facing.

I have seen a lot of other programs with same problems, same frustrations. Programs have a tendency to be kind of similar. Everyone is working essentially on the same or similar curriculum standards even when they are different. They are all kind of getting

it the same way. They are dealing with the same whatever is the local history aspect may be.

Educators received ideas and inspirations on tours and traveling trunks from the Curator of Education at the Boulder Natural History Museum who had a good children's program in place.

Program Design

Supplementing social studies curriculum through artifacts and visits to the historic cabins had always been the underlying purpose of the field trips. Effective implementation of field trips required a thorough preparation of *what* educators wanted to deliver and *how* it would be delivered to serve the target audiences. It also required preparing those who deliver (present) and receive the programs, museum's volunteer docents, and 2nd grade teachers who bring their students to the museum.

It is the curriculum match that brings teachers and students to the museum. The content that the educators teach through the field trip programs connects directly to the 2nd grade social studies curriculum. Educators researched the standards provided by the PSD Curriculum Coordinator along with teachers' feedback on programs to align the field trips with the school curriculum.

it was all written out so we can go back in to make sure each tour matched up with the curriculum....part of the preparation was really studying those standards and figuring out [how to fit].

There are certain topics that teachers wanted us to address and so we have chosen those based on their needs. And also, Folsom is something the museum came up with just because it is so unique and an amazing collection for some. From there you develop a central theme and come up with sub-topics and the interactive activities and just make sure that everything is simple and the language that we are using is at the 2nd grader level. That was something that we tried to pay more attention to at the beginning too.

To customize field trips for each school group, educators assessed what outcomes teachers were trying to achieve for their students from these programs. They also wanted to know the preparation teachers' undertook in classrooms.

Assimilating information, find out what it was the teachers were hoping to get out of the program.....Other things would be to find out where the students are in the curriculum before they come out. Also, helps me as an educator.

Educators incorporated vocabulary terms appropriate for the age group in addition to the curriculum match. Educator 3 gave an example of how educators included new words in presentations and their usage in programs.

There is a vocabulary that the students learn in the 2nd grade, so you can try and use that. I know the word "parallel" and incorporated that in the map activity because that's the word they are learning. That's so wonderful to be able to use that word and the teachers get excited.

Similarly, for *Build the Fort* activity children were introduced to words such as *cavalry unit, barracks, mustering out, and stables*. Educators felt that this was an effective way to support classroom teaching.

There has been more flexibility on *how* educators deliver curriculum to the 2nd graders most effectively and efficiently than *what* (the content) to deliver. Educators used experiential methods prevalent in informal teaching environments to deliver presentations. They focused on connections between what students learn in their classrooms and what they see in the museum.

their teachers talk about actually seeing the real thing. Whether that's being in a cabin from the 1850s or Folsom points in the case, they see and make a concrete connection between the stuff we have been talking about and there it is the real thing.

Taking the age factor of the audience into account, educators combined learning and enjoyment with interactive and engaging hands-on activities packaged as synopsis of local history for 2nd graders.

it's a field trip and I wanted it to be fun and kind of a little craziness I think is acceptable.

museums can be fun and there is lot of stuff there. I (the students) had a great time and I want to come back to get more.

Refining the programs took the expertise of educators and support from the administration and PSD curriculum coordinator. Educators worked on the format, presentation duration, activities and props (items to support activities such as wooden blocks to designate buildings), information packets, and docent training.

Here is how the school field trip programs were prepared to fit 2nd graders educational and developmental needs.

Presentation Format

Educators evaluated the content of each program from the perspective of outcomes that they were trying to achieve. It was a challenge to design programs cognitively and physically appropriate for 2nd graders.

You don't want to overwhelm them with too much info. You want to give them info that they will remember. That's what it's about. So, I think the preparation was good.

if you ask me if the 2nd grade is the best grade to teach local history...you know, I would probably argue, not. I think it is a little harder to get some of the bigger concepts that we like to across, it is harder in the 2nd grade.

Educators felt restricted in terms of the content they could get across, so they kept things simple. They re-wrote program formats to include interactive and experiential aspects in their teaching, which Educator 3 explained.

we really created themes for each activity station: one central big idea, one thing they can walk away with, and worked on making them as interactive as we can with props and making them simple and consistent for the docents to learn.

The current program formats have worked well for children and for docents in terms of learning and teaching.

Presentation Duration

Setting a timetable for field trips was another component that needed attention. Educators or teachers did not have control over time duration of field trips because it is tied to bus availability and schedules. Educators were able to allocate time to include three presentations in a 90 minute field trip as described below.

We got it down in a pretty good formula of the three 20 minute rotations with 5 minute buffer between each one. It will take a little over an hour and then remainder of the time they can spend in the gallery as a big crazy group doing the scavenger hunt running around the gallery.

Most educators felt that 20-25 minute presentations are optimum to engage children keeping a balance among talking, activity, and group interaction. Without any

activity the children become disengaged and lose interest. Educator 3 explained how she keeps herself in check during presentations.

I let the props guide me a lot so it is all about the props and not so much about me saying all this stuff because you want that hands-on and they can hear their teacher talking in the classroom. I also balance it by always using the props, always using the cabins and the props. I ask them to hold their questions to the end of the program and their stories and then, it saves time because we don't have time.

Although, the staff educators agreed that 20-25 minute presentations are the length to which children attend, docents felt rushed in 20 minute presentations and wanted to have at least 30 minute for each presentation. Educator 6 gave her justification for 30 minute presentations.

I think that 30 minute is about moving them around the room and not letting them sit and lecturing them. That's part of it. I have them feel the animal skin. I pass the beaver's skin, so it is the physical interaction with them as well. If I would just to stand there and lecture them, it probably would be 20 min. That's why I like 30 min because I like the physical involvement.

Educators felt that filling time with more information is easier than condensing it into a shorter time. They did not like rushing through the presentations because a group arrives late at the museum or teachers want children to have a whirlwind tour of the entire museum. They thought it is important for children to have some free time to explore museum exhibits on their own at the end of the field trip. To enforce exploration, the educators incorporated a *scavenger hunt* as an activity, which children could do if there is time available at the end of the guided field trip.

Activities and Props

Informal and experiential aspects of field trips demanded props and activities to engage children.

We really worked on improving the props as that's one part getting the kids excited as to have those hands-on things that they can hold themselves and be a part of the activity.

We need to make it so every child feels like they are involved, whether they are trying to throw a beet or holding a sign.

Before they know who Auntie Stone was, children build a map of the military fort *Camp Collins* using small wooden blocks. In the *Boxelder Schoolhouse*, children

use slates to write as in a one-room school in 1905. To understand the lives of children on farms, 2nd graders throw bean bags imitating loading sugar beets on wagons.

That's the nature of a 2nd grader. Feeling that bean bag and thinking that's how heavy a beet is. That's way cooler than saying, "oh, beets weighed 8 pounds." They have no concept of what 8 pounds is.

These activities teach children the contrast of today's life styles and activities to those of the past. Second graders may not remember the exact years in which the cabins were built but having a dirt floor in *Antoine Janis Cabin* or writing on slates in *Boxelder Schoolhouse* show them distinct differences from the past.

Educators had to budget their spending for materials and props needed for simple child-friendly interactive activities.

we really had to budget to get props and things that we wanted tie them up so to speak. So, part of that was researching what we could buy and what was out there, what would be worthwhile to have for our tours because what we are pretty props dependent because they are interactive.

Teaching Docents to Present

For delivery of the field trip programs, educators have help from the pool of volunteer docents. These are people who devote time to do field trip presentations at the museum because of their interest in teaching history to children. Training docents to teach using methods appropriate for informal environments is important and plays an important role in effective delivery of the field trips. Educator 5 thought having knowledgeable docents is the key to the success of field trips.

knowledgeable docent and crowd control.....I think those are the main things because materials that have been prepared now are spot on. If they are presented well and the kids are paying attention, that's all the preparation necessary.

To become a docent, volunteers are required to participate in the training session offered every fall at the museum. The training is three 60-90 minutes/week sessions presented by the museum staff to familiarize docents with the programs and presentations. Each docent-in-training receives an information packet and is encouraged to use the museum library to further enrich their training. They may

choose to shadow an experienced docent for one or more field trips before they actually start doing the presentations.

I continue to learn on daily basis. So, I don't look at that as too much of a detriment because I enjoy the process. And I think my joy in discovering more and more about the area, I have found things that I think are fascinating and we would be able to share it with students.

In the past two years, Educator 2 has re-worked the docent training sessions. The training now includes a walking tour of Old Town to acquaint docents with landmarks they would be talking about in their presentations. He has "streamlined the training for the docents...Just to make it little bit more cohesive for them [docents]." The idea behind these changes was to equip docents with more information on local history than actually required to conduct the presentations. Learning students' perspectives of the presentations was also included in the newer format of the docent training.

Some of the things I have done with the docent training is....time talking about the pertinent facts of each program and then instead of just talking about the programs or actually getting docents to be trained a chance to see what programs look like if they were students.

Educator 2 prepared to teach by reading and understanding the events that shaped the history of the area. He thought his previous work experience in informal teaching environments made learning about the area/region a rather enjoyable process. As he re-formatted the training, he encouraged docents to read books available at the museum library to gather information and facts about the local history. Educator 2 compared his teaching strategy with that of a chef.

It is a little bit of a shopping cart full of information, and it's up to for the docents to decide what they are going to make for dinner. I like to have frameworks that are little bit more of a recipe.

Extra information always comes handy as fillers or if a child asks a question about something not covered in the presentation. Educator 6 thought that it always is a good idea to "over prepare." As a new docent, Educator 7 kept cue cards to help her through the presentation which got better with time.

Preparing Teachers

Educators send program information with confirmation packets to teachers as the time and date of field trip are set. The packets contain confirmation of the field trip and information on the programs children would attend. The packets includes a museum map, pre-visit activities, a reminder to dress appropriately for the weather (in winter), and museum rules and manners that children are expected to follow when at the museum.

It's a field trip and I wanted it to be fun and kind of a little craziness I think is acceptable. You don't want them to go really annoying, touching, and bunch of things, so we, of course remind them.

Sending information in advance is a way to set teachers' and students' expectations from field trips which ties to supplementing classroom teaching.

we support what's going on in the classroom and we hope they have a good time but may be in fact they walk away with something new that they didn't know before. And, that can happen in all kinds of ways.

Information in the packets elaborates the programs and the experiences from field trips. This is particularly helpful for teachers to set the context because if they start the topic in class, field trips can prove to be a good learning experience for children.

If the teachers want their students to get the most out of their experience here, then they can help greatly by setting the stage. But, we can't force into doing that.

Although it is not a requirement, educators hope that teachers would bring students with some background on local history. By including pre-field trip activity sheets in the packet, educators help teachers to prepare the 2nd graders. Teachers can reproduce these sheets and conduct activities in class. Educator 1 was quite pleased with the activities/worksheets she designed corresponding to each of the programs.

That was the probably one of the things I was most proud of as actually getting a pre-activity for every tour. Some were better than others but I would try to send out a pre-activity and do a packet that would remind teachers....things to remember when they are at the museum and things to remind them of the rules.

Like the Folsom activity, I am really proud of the pre- activity I did because it was so tailored to the program and got the kids so ready for what they were going to see. I had pictures of Folsom points and different tools and they came to the museum. We did the program and they knew what those tools were already. Their teacher was like, "Which one is that look like?" and you can tell that they had done the pre-activity.

The pre-activity worksheets were to acquaint students with their forthcoming field trip. Educators thought that pre-field trip exercises could prepare children to learning new information at the museum based on what they already know. Children get excited if they could answer questions by educators at the beginning of the field trip. Preparation also gives them a chance to participate in interactions during the presentations.

Because, one they are already started thinking about things before they even come and they are more excited when they get here because they know something.

That made the kids so happy because they were so proud, they loved being the 'know it all', they loved having the answer and it was so great. So, it was pretty obvious that they spent a lot of time on the pre-activities. And other time may be they used the activity is just not so obvious. So, no hard and fast rule! But, it is good to know that they spent a little time.

It [confirmation packet and information] really helps the teachers. Kids don't sit and listen to lecture. They just can't, especially when they are all excited of being there. They have a role to be asked questions and get their feedback. And then, when one kid is given the feedback, you have to be really careful that everybody else is still listening.

The other objective that the packets served for educators was to inform teachers of the museum rules that children were expected to follow. A field trip might be children's first time away from school. Second graders are at the age when going on a bus with their friends and teachers on a field trip is an "event" as Educator 5 calls it who had taught in school as a 2nd grade teacher.

It is an event first of all. For 7-8 year olds, my, this is a big deal. It is not like walking through Wal-Mart. This is a big deal, we are taking our lunches, we are taking the bus.

By sending information packets, educators want to make sure that school groups (teachers, students, and chaperones) come prepared for experiential learning and fun. The packet includes a reminder to bring children appropriately dressed especially in winter.

I have to remind that we are going to be outside as a lot of our programs take place outside in the courtyard. Our buildings are not climate controlled. On a cold day they tend to be colder on the inside than on the outside. Preparation for that includes making sure they know that students are going to be outside sometimes 30 to 60 minutes. They will have chance to be inside the museum to warm up and experience the exhibit.

Educator 1 commented that they can guess from children's behaviors if their teachers have used the information enclosed in the packet. It encourages educators to know that teachers are as enthusiastic as they are to make the museum trip memorable for children. Educators think the information packets can be a useful resource to teachers preparing for the field trips; however it would not do any good if teachers do not open those packets until the day of the trip.

Museum Constraints

Constraints of space and time hamper educators' efforts to do more than what they are currently doing. Lack of storage space is one constraint the educators face in putting in more work in preparation of the field trips. Without space to store props and trunks they do not want to expand activities for the programs.

Limited job hours had been another factor preventing educators to allocate time for all the projects they wanted to do such as writing programs, refining pre- and post-field trip activities, or organizing open houses to communicate directly with teachers. Due to time constraints, it was hard for experienced educators to take on responsibilities that were not part of their job description.

my time wasn't delegated into school programs to go in that depth. But, again it was weird that I was there to assist, but then I never took on the full responsibility for K-12. I think there are things I would have done but it wasn't my job.

Educators served teachers and 2nd graders to the best of their capabilities. Educators wanted to improve pre-visit activities, add post-visit activities, and conduct open houses for teachers, which due to limited time and resource availability, were not pursued as priorities.

because we have so much on our plate just we didn't feel ready to bring in teachers and do an open house when we are just trying to improve our programs.

Educators were aware that the mailed confirmation packets were not always received, opened, or used by teachers. This usually happened when classroom teachers were not involved and parents or office administrators set up the field trip.

But, it is a challenge. We can send them out barrels full of info and it's always as good as the teacher makes the time to prepare them for. Believe me, we recognize that teachers are not sitting and twiddling their thumbs around and wondering what they are going to do in the next class period. So, we provide them all that great info, sometimes it doesn't get passed on.

A lot of the teachers don't open their confirmation packets until they arrive on that morning. That's one of those things that need to be addressed.

Educators felt that the responsibility of preparation could be shared with teachers if there was better communication. If 2nd graders come more prepared and teachers look over the information sent to them in the packets, it would make educators' presentations worthwhile and teaching and learning outcomes more achievable.

Implementation of Field Trips

The section presents educators' perceptions and processes of field trip implementation for 2nd graders. The process of implementation starts with a call to set up a field trip. The programs FCM offer and the curriculum standards each meet are posted in the program brochure on the museum's website, which teachers may check before calling/e-mailing to schedule field trips.

Teachers may ask a parent volunteer, a paraprofessional, or a staff member to schedule a field trip for all 2nd grade classes. The person making inquiries is referred to the museum website (if they have not viewed it) to choose three/four programs from the six that teachers would like their students to experience. Once the programs are chosen and the date and time are set, educators mail the confirmation packets (discussed in the Preparation section). It is a practice to send another confirmation directly to teachers via e-mail. Educator 1 explained the reason for the double confirmation.

I would do another confirmation via email that this is what I have because I realized most of the time you are communicating with one teacher but they are bringing three classes to the museum and all three teachers need to know what's going on. And I figured the least with all the paper and email hopefully that does not get filtered. They have a paper they can grab on to and give it someone who is actually going to be with the field trip group.

Educators want to implement programs with a hands-on approach and expect cognitive and affective outcomes for children. Cabins do not have space to accommodate large groups (more than 20-22 people) so educators divide the 2nd grade classes in smaller groups (~20) and present programs in rotations. Depending on the size of the group and number of programs requested, the School Program Coordinator schedules docents from the volunteer pool to cover the field trip rotations. Having two or three docents, if available, for the historic cabin presentations helps the museum staff.

keeping them much longer with the same docents is hard and it is hard for the docent too. Teaching is so hard, such a detailed job, so much energy is required. When you are being a docent for 20 min straight, it is very taxing on the docents and kids as well.

In case of docent unavailability, educators from other departments may be tapped to do the program presentations.

The Field Trip

On the day of the field trip, educators receive children, teachers, and chaperones at the big metal gates on the south of the museum's main entrance. At this point, the School Program Coordinator introduces the educators and programs to the group. Teachers divide children into groups (if not done in school) and assign chaperones for each group for the field trip rotations. Educator 2 explained his way of setting expectations for the field trip at the origination of the field trip.

Ideally, when they arrive at the same time as one large group, at that point I try to get them together and do a large a mass assembly of all the students and chaperones. Outlay what their experiences are going to be at the museum. So, they know what things to expect while they are here.

He uses this time to address the background and history of the museum building-- what it is built of, and when and why it was built.

During that time we will do an overview what's the museum is as a building. As the history museum is today, that it used to be a public library, what the museum is constructed from. In this case, public buildings are made of sandstone.

At this point, educators get a chance to connect with children and to assess if they have been studying the unit on local history in school.

That's also a good opportunity for me to gauge how much of the history the students know. While we go through some of these things [I may ask], where the sandstone for the building came from which is area of Horsetooth Reservoir now. If they know these types of things that is a really pretty good indication that they have covered a lot, they paid attention, hopefully they will have a good experience during the trip and they have a good knowledge base already. If I am asking these question and I am getting sort of blank stares and the teachers is like that they haven't covered that yet, that's a good indicator where are they in their curriculum. So, there are subtle ways of doing that.

Educators treat every school group individually and customize their presentations accordingly. Children may or may not know much about the local history.

a pre-packet or confirmation (that) states what the teacher should do to prepare. We don't expect that they have all learned the history, so that's not an expectation.

This could be their first intro to the Fort Collins history and that's great! They can be more excited in the classroom after they have come here. So, we don't have any expectations of what that they need to know about history. The only expectation we have that they understand that they have to respect the museum and the collections.

Display of museum manners is an expectation of educators that they think teachers must teach children before bringing them to the museum. Educators impress the need to behave and be courteous to other museum guests before children start their field trip.

There is a whole of museum manners, you expect them to be good listeners, and treat you like a teacher. Again, it is a little looser, they are here to have fun, it is a field trip, it is not a classroom!

The educators' mission is to serve the 2nd grade audience using interactive and enjoyable curriculum-based programs. They believe that the responsibility to impart learning is shared equally by teachers and is dependent upon how they prepared their students for the field trip.

As supplementing the local history and social studies curriculum is the reason for 2nd graders to come to the museum, the content of field trip directly ties to the

PSD curriculum and standards. Educators are quite clear about the presentation objectives in terms of meeting the curriculum standards.

In all of our programs we have 3-4 objectives for the docent to get across. I figure as long as you get those across, we did the best you could. As long as you are getting what the teacher wanted for the curriculum, you gave the good experience for the kids ...that's all you can do.

Additionally, there are bigger learning goals besides curriculum to achieve through the informal and hands-on experiences. Educator 2 insisted that field trips are about building experiences which may also impact learning, curiosity, and critical thinking skills.

I think if we had to tied down to any one thing, experiential learning probably my biggest goal as an educator here.

Why this building is built this way, the log cabin door, why is it built that way, with what materials; I find that answers are easy; you have to ask those questions to get the children to think. Not so much to telling them what to think, but showing them how to be curious and be puzzled.

As children may have different knowledge backgrounds and curiosity levels, he suggested that the field trips outcomes may differ for each child. Providing an enjoyable experience to all is the ultimate outcome expected from the programs.

It's hard to have a specific set of expectations with an individual within that group. Each one is going to be different. My expectation is that they all hopefully come in, participate, and are going to have a good time, and they are going to take something home from the museum from that experience. Those are my expectations really.

Aided by the preparation done by teachers in school, the 2nd graders embark on their field trips with museum educators.

Field Trip Presentations

Each presentation starts with educators asking probing questions to assess what children know about the topics. This helps educators establish how to continue with their presentations. It sets the tone and gives them a starting point for the 20-25 minute presentations. From their responses, educators gauge if the children are aware of the reasons they are visiting the museum. Children may have varying degrees of preparedness as every teacher has a different way to teach the

curriculum. Educator 1 could not recall an instance when children knew nothing about their trip.

usually they come with a little bit of a background. And there is difference in every school, sometimes they came and know a ton, and another time not a lot. They still have a good experience.

I am delighted when they come in and they can show me how much they know already. Because for me it is a good opportunity to let children shine. I want them to have what they have learned, what they have assimilated, reinforced in so many different ways.

As it is generally the case, Educator 7 delivers her program with an assumption that the children came for the field trip with some background knowledge about what they were going to see at the museum.

For the most part, they have had some kind of preparation toward coming to the museum. So, I don't ask them if they have done anything or special before they came. I just kind of tune in and pick up and if they have then I know I can ask more questions or ask somebody for a special answer to something or figure out a problem, you know.

I start out to do some assessing of what they know by asking them a couple of questions.

In Auntie Stone's and Antoine Janis's cabins, it benefits children to have some background of the topics as it makes it easier for the educators to conduct a more detailed presentation using familiar names from the local history. *Boxelder Schoolhouse* is an interactive presentation which does not require children to know its background. This presentation is experiential and hands-on learning showing children the contrast of school and teaching practices prevalent in the early 1900s to the present.

Educators are realistic about the information they want to cover in the short duration of the field trips without overwhelming the children.

On an average, about 25 minute is good. Are we going to go over the entire history of Larimer county and northern Colorado? No. You have to be realistic at the level of these children on an average.....you have to put yourself in the shoes of your audience. And know what is it that they want to get out of here. It is not just about you sharing again how much you know.

Educators feel that doing the field trips when children are actually studying the local history unit in class is better than to wait until the end of the term.

Children seem focused if presentations directly relate to what they are studying in school. They understand the concepts of history better when they actually see and touch artifacts during field trips that connect with the classroom teaching.

Balancing Talking, Activity, and Interactions

An overarching goal of field trips is to supplement classroom curriculum with historic information keeping it simple, interactive, and in language 2nd graders can understand. Educators agreed that providing experiences of objects of historic provenance using interactive and engaging activities is much more important than talking. They understand that the presentations need to be informal and hands-on to promote experience over information. Educators balance the three important components of the presentations, (i.e., talking, doing activity, and having group interaction). When asked about her preference, Educator 1 suggested that all the three components are important in a presentation.

I think it is the balance between telling a story, having the kids answer questions, throwing things, feeling things, writing on slates. It is all important. You can't break it down in sections (like 10 minute). It is all a combo. It is about meeting our objective of each tour in the most energetic interactive way possible is the most important thing.

There was no agreement among educators on whether to divide time equally or to focus on one component over the other two, but they all agreed on the importance of the activity component of the presentations. Staff educators thought that as the programs have to meet curriculum objectives, dividing the time evenly among the three components is appropriate. Docents thought that the activity should dominate as hands-on action leads to interaction and dialogue between the educator and children which helps them learn.

The activity that's what I think it cements it to the brain.

definitely the activity because again for children, they are visual....Facts regurgitated back just would not stick with them.

Educator 3 discussed how she balanced her presentation.

we go on to do an activity which is where the content and the interactive experience come together and then in the end we have some time for questions. If they start telling long stories, I thank them and I ask if they save stories for the end.

Activities and interactions to generate dialogue are methods to engage children so they pay attention to the accompanying information. Educators use this strategy to make children think and to relate information to their lives. Questions like—“What would it be like to have a dirt floor in your house?” or “Would you really like to have your brothers and sisters in your class?”--make children think and reflect. These simple questions make children compare their lives to the past.

Educator 1 thought that school groups expect to receive interactive field trips. In her opinion young children who associate stories with bedtime would fall asleep if presentations lacked interaction and activity. No one likes to have a “walk and talk” tour where the educator is the only one talking. Educator 4 favored interactions with artifacts and thought that the historic cabins provide great opportunities for interactions to children.

What I would like to try to do is have them interact with artifacts, the real things, or some of those artifacts. I think we do in the cabins is a pretty decent job of that. Because that activity, that touching of some things is going to be most memorable for these kids. The kids are not going to remember that these cabins were built in the 1870s or whatever it is, but there are going to remember the restaurant or the dance and some of the activities that we do. Again, I think that’s the extent of what the 2nd graders cognitively take away. So, obviously at that age, the hands-on part is, I would think, is most important.

Educators apply their teaching styles to deliver the content while balancing talking, doing an activity, and encouraging interactions and dialogue.

Educators’ Teaching Styles

Although provided with the materials and format for delivery of the programs, docents have liberty to exercise their own teaching styles and teaching philosophies.

Educator 2 who had worked on the new docent training format stated:

it’s a framework, it’s a skeleton, but they can add bits and pieces on to it, again, to fit their own particular temperament and teaching style.

And some of our docents are very good about it [being flexible], some others like to be in their individual comfort zone. They really like being in that classroom because it’s what they have been comfortable with. Others are much happier and much better

educators when they are running around and playing games with the students, like telling students the size and weight of a sugar beet. I think, within the four programs you'll see different techniques and different styles that work.

Educator 7 shared her style of doing presentations.

I have a skeleton of what is basically important for this portion of their trip. Then you have to put your own personality in it or you are just standing up there and saying a few words. If you don't get your own personality into it I think it loses something.

Staff educators do not have preferences of school programs presentations and they fill-in where they are needed. Unlike staff educators docents expressed presentation preferences. Educator 5 likes the Boxelder schoolhouse presentation. As she had written the program and had arranged the props, she likes to present it as a 1905 stiff-collared *school marm* (female teacher). The *Schoolhouse* presentation has a set format of depicting how the one-room schools operated in 1905.

Educator 6 who took the docent training in Fall 2007 preferred to conduct the tour of *Antoine Janis cabin*. She gave the reason for her preference.

I have really worked with only Antoine Janis Cabin. That's my favorite. I enjoy that because it incorporates the Native people of the area and earlier people of FC. A lot of times the children are more just present in history—you know they don't have the kind of—especially the background with the Native people. I think that's really important for them to understand that they were here first, you know and often we started the white people history and move forward. I like to throw in a lot of the information about the people who were originally here before the trappers came.

Educator 6 thinks highly of Antoine Janis who as an early settler of Fort Collins had made connections and relations with Native American people. She suggested it is important for children to get the history from the Native American perspective who were the first residents of Northern Colorado.

he (Antoine Janis) was married to a Lakota woman and I believe he did (speak their language), he was an interpreter. But, just being one of the earlier people, because he was from St. Louis, a white man here. I think he really developed a lot of respect and commonness and how he lived. And, I think the children need to know that. I think there is lot of focus on Auntie Stone and soldiers and...that's my favorite, that's my favorite!

Educator 7 prefers doing presentations at either the *Auntie Stone Cabin* or at the *Boxelder Schoolhouse*. She considers it her responsibility to tell children the

history of the city where she has lived since 1935. She likes to tell children her personal stories and connection to the presentations which is her way of validating the information.

Another advantage that I have over the other docents is that I went to second grade in FC. And, I remember Auntie Stone's cabin when it was at where First National Bank is now. It was on Mason St., on that corner. And I was kid and I knew that. When I was a kid and I came to the same library, but we had the whole basement for children's books, so I have some stories that some younger docents don't have.

How they prefer to take children's question varies from educator to educator. Thinking children might forget their questions; Educator 6 tells them to ask questions during the presentations. Other educators prefer to keep time for a few questions at the conclusion of their presentations. Educator 6 likes to question children throughout the presentation to keep them engaged and attentive.

Well, I pose questions like if it is early, "what it would be like to live in house with 15 brothers and sisters in this one room?" You know instead of waiting I like immediate responses from children and that's just my teaching style.

Educator 6 believes in informal education through experience of objects and motivation for critical thinking. She shared her insights on how to get children motivated to learn on field trips.

children love to learn if they are inquisitive, open-minded and if they want to explore what there are interested in and what you are trying to teach them. I don't really believe in rote education, here are the facts: learn them, regurgitate them and I guess I am of teaching style of learning them (by letting) critically think for themselves.

These children come in with certain level of wanting to learn and to me that's a good thing that they are doing something live. I do have a problem with giving up things like social studies, arts, and school to all this testing which I personally I don't know is the right way to go.

Educator 7 thought that 20 minutes are not enough to do her presentations and would prefer 30 minutes so she is not rushing children. When she is ahead of schedule, she likes to teach children games such as *Drop the Handkerchief* or an extra lesson on *How beavers cut wood*.

We learned how to play *drop the handkerchief* or something but that's another item that goes along with..... if we have time so, may be in the 30 minutes you have time to do more relaxed things than you do in the 25 minutes, that's what I am saying. You can add a few little some things not just history.

Educators 1 and 2 were interested in students getting an experience to take with them. Educator 2 explained how he connects with his audience of 2nd graders.

I have found that if you are enthusiastic about the things you are talking about and those elements makes it much easier for the students to pay attention. If you are really having a good time they are going to have good time as well. That enthusiasm is infectious. Dreary, dull, droning, didactic elements are infecting as well.

Modifications per Situation/Group

Educators follow programs' formats as much as possible as they want to deliver a quality product to their audience. Educators have to either condense or expand the programs to accommodate the needs of each school group. Weather, late arrivals, children's background knowledge, a teacher insisting on a tour to see the entire museum in an hour, or misbehaving children are some issues that require educators to be flexible and prepared to modify the programs and presentations impromptu.

For me, I don't mind switching gears, and each situation is going to be individual. With that attitude that it's not my program, it's not my show, it is learning things to accommodate a late arrival, whether it would be changing to accommodate through those behavioral means or challenges of some sort, you have to be very flexible.

If children wanted to throw bean bags to simulate beet throwing on a snowy day, educators made that possible by holding the activity in the museum gallery. If a group came late they were allowed to do two rotations instead of three. For groups whose teachers insisted to see the entire museum, the presentations were condensed to a fast-paced tour of the cabins. Educators adapt programs within limits per teachers' and children's needs. However, they always hope to give children an opportunity to come inside the museum and explore exhibits.

Free Time and Scavenger Hunt

Educators stress the value of free time when children could explore the museum with their peers and teachers in the gallery. Educators feel responsible to expose children to the concept of a museum and the artifacts it houses and

conserves. Educator 2 commented that it would not be fair to children if they are not given a chance to experience the museum during their field trip.

they can take away so much anyway from the museum, whether it would be bits of information that the educators sharing, or whether it is the experiences that they are having while they are here. It is all levels of learning that takes place during these programs. It's not a classroom per say, it's not that structured type of learning. It is exploration, play, fun and learning all the same time.

I would much rather that students have about 10-15 minutes to do some of that inside here because it is going to be exciting. If they haven't seen all the things, you encourage them to spend some more time afterwards to do exploration. And then, after they roamed around and get excited about what is on exhibit

Program format is such that children can have time to explore the museum at the end of the three program rotations. They can spend this time visiting the museum gallery and looking at things with their chaperones. The gallery has a display of archeological discoveries of the Folsom site, pictures and artifacts of people from the past, and a seasonal exhibit. The exhibition *Rock this Town*, displaying different types of rocks of the region, was on at the time of the data collection for this study.

To guide exploration in the gallery, Educator 1 designed a scavenger hunt as an activity for children. This activity uses a fold-over sheet (as no pencils are allowed in the gallery) with a list of items that children could find in the museum gallery with the help of their peers and chaperones. Educator 1 explained the use of scavenger hunt as a means of self-exploration.

It is sort of a few purposes. One is there is kind of a buffer zone at the end of field trip to bring the whole group act together to give a conclusion. You bring the group together in the courtyard and give a conclusion. Take them upstairs and the chances are one of the group is already been upstairs with a different program or rotation. You get them up there. It also gives teachers some flexibility. Well, now we can go. They don't want to spend time in the gallery or they can spend more time in the gallery if they want. They can leave when they are ready to go.

She refrained from modifying the scavenger hunt to a puzzle-type component because it would have taken time away from free exploration.

Although, it is not possible to see everything in one museum field trip, educators think that the presentations will arouse children's curiosity to find out

more. Their curiosity may result in another trip to the museum with family and friends. That is ultimately what educators strive to achieve.

Some people might disagree with me but, but, again it's the whole field trip mentality. Some of the best times are run around and finding things, and look at everything. That's cool. Some of the kids get their parents back to show things. You hear it from teachers and they mention that, "May be we didn't get to do that, may be with their parents they can do this."

Children's Behavior

Educators unanimously agreed that they are responsible for children's learning and for the teaching objectives they are trying to achieve from field trips. They expect that teachers bring children to the museum prepared for an educational and enjoyable experience and prepare students to follow "museum manners" and behave civilly to other museum guests and objects.

On a field trip it was so fun to just be with other people. To see a different adult to be somewhere else and there is energy. In a museum, you don't want to squelch that in a museum. You don't want them quiet. You want them to be happy and excited. Where else they would be able to do that? You do expect them to come in, sit still for a minute and listen, and raise their hands...like the basic manners.

Educators have to make sure that "the building is safe and the artifacts protected and conserved." They accept their responsibility for students' learning, but expect teachers to intervene when there are behavioral issues.

I think it is a give and take type situation. Our job here at the museum whether it be myself or docents that are part of the education team here is to facilitate the program. To certain extent that involves group control but not necessarily discipline. If there is a child who is had some sort of intervention, at that point, yes, you are in the group or a chaperone is responsible for that student. I believe (it's their job) beyond a certain point. And, if they are coming to the museum and they are doing their job, sometimes it does include redirecting the (child). If they become a problem where it is their job they need to do, then, yes, then the teachers or the chaperone in-charge does need to intervene.

Although educators accommodate deviations from expected behavior (e.g., unruly child, an intrusive teacher or parent, or teachers more interested in taking pictures) in good spirit, they feel teachers (or chaperones) need to step in when children misbehave. To have the least disruptions during the presentations, educators first try subtle ways to control unruly children.

I like to try to incorporate those children a little bit with what I am doing to have them help along with the lesson. I really haven't had too much problem with that. I think it is so exciting for them to be where they are that so a little bit happens.

Educator 7 thought sometimes it is appropriate for educators to tactfully handle the situation rather than waiting for a teacher to intervene. With 20 minutes for the presentation, she does not want to compromise time for a misbehaving child. Even if the presentations go smoothly, teachers' roles in enhancing children's learning during field trips cannot be undermined.

Educators' Perceptions: Teachers' Expectations and Roles

Educators shared perceptions of teachers' expectations and the role they can play in shaping museum experience for students. Teachers follow the guidelines and request three programs with or without the scavenger hunt which may require 90-120 minutes. Different teachers expect different experiences for their students on the field trips. Some teachers look for a detailed experience touching upon a few aspects of local history and some others want an overview as explained by another educator.

Each teacher does have a different expectation when they come in. Some are very realistic about the time they have and they know that they are on the guided program or know that the program will take place in the outside in the cabin or inside the museum, and will have a little bit of time to explore the museum. Then there are others who are extremely ambitious to what they hope to accomplish and they want their students to see every square inch of the museum in 45 minutes which makes it difficult. It is a whirlwind tour.

Teachers' agendas to see the entire museum and cover local history in 90 minutes conflict with the educators' plan to impart memorable museum experiences through interactive and informal presentations.

Teachers are wanting to meet some standards (curriculum). To me as a museum person, I would rather get them excited and teach them a fact. I would just rather have them feel as they were part of a museum experience than just learning facts.

Educators want teachers to take an active role in their students' learning on field trips. Teachers' cooperation to facilitate rotations for groups is appreciated by educators.

You expect them to cooperate, to remind the students that docents are going to give programs and they need to be good listeners and be engaged. They need that gentle reminder. They know their kids names...who is going to be a trouble maker. There is one in every class, we know that. So, the teacher should be there [to support].

The teachers who stand around the edge and help children attend. They put their hand on the child's shoulder and suddenly the child is listening again. That's the most helpful for me.

Teachers who are cognizant of the curriculum and students' learning needs help gear the presentations by asking questions on topics they want educators to cover.

Educators welcome interjection of a fact or information by the teachers that was shared in class as it acts as a reminder to students.

You have to focus on the students. Each group will have its own dynamics, its own personality. Sometimes it's a child who will take over a class, other times it's a parent or a teacher. So, it does happen. You have to just keep going.

It is not very common but occasionally educators come across teachers who use the field trips as a day off from their teaching responsibilities.

You encounter a variety of personalities out there. And, 9 times out of 10, the teachers are really geared toward the benefit of their students.

Then there are some teachers who are completely unaware why their students are there. The teachers standing outside or talking on a cell phone, that's also disheartening for me. That means that's a teacher, unfortunately, who is not using this as an opportunity for themselves that they can lend or share. Unfortunately, you do see that sometimes, not too often but it does happen.

Seldom do educators encounter situations where teachers try to change focus or interject information not relevant to the presentation.

you had a special order with each program. You do the programs in a certain way because they have a point, there is an objective, there is a script. We want to get to those things; we have a way of doing it. Teachers changing it for you....It does throw you off a little bit.

In situations like these, educators try to stay focused on the presentations and do not take things personally. Educator 6 did not have a problem with intrusive teachers and tried to use it at her advantage.

I would probably try to incorporate that. I wouldn't see that as a negative. May find out what and why they wanted that moment and may be just move on with the program. But, that would be no problem.

Occasionally, a teacher insists upon doing a tour of the entire museum in place of requesting three programs. Despite their reservations about quick museum

tours, educators modify their programs to accommodate the teacher's demand.

Educator 1 would have handled such a situation differently and would have tried to convince the teacher to have individual tours instead.

If I had been in that situation and I wanted to keep what we are doing. I would have said, "OK....Here is what we offer, this is what you pick, what we do here is focused on the curriculum. If there is time at the end of the tour if there is time, you can tour all cabins that's fine. This is what we are doing because that is fair to the docent and fair to the staff. It gives teachers that expectation. We are giving quality product each time. That would be what I would hope to express to the teacher. I can't imagine them being unhappy over that.

Educators are flexible to teachers' requests in terms of scheduling of the field trip, time and day, and activities, and to weather related logistics such as late arrivals, needing a place to eat lunch, etc. They refrain from changing the program format drastically as they are responsible for the experiential gains of young audiences and for the museum's educational mission.

Perceived Children's Gains

As discussed earlier, museum field trips are about children getting excited about history and having an experience which combines cognitive and affective outcomes. Learning that occurs on short and one-time museum exposure is hard to measure. Educators try their best to give children a good experience and a memory with a snapshot of local history connected to the classroom curriculum. At the museum, children experience how life was in Fort Collins over 100 years ago and that experience is shaped by use of senses. Educator 6 thought that 7-8 year olds learn best with visual and tactile stimuli.

They are very tactile. They want to touch. Part of the museum experience when they go in the big museums, they can't touch a lot of the stuff in there.

Educator 7 thought that having the time for some questions at the end of the presentation is important. That is the time for children to think critically and ask questions to clarify or gain additional information. This is an opportunity for educators to gauge if children grasped the information.

I would say that the most valuable thing to fit into that time is to leave for questions. So, they have a chance to have some input or may they really want to know about something that came to their heads and you didn't cover it.

Museum's children-friendly space and environment lead to field trip experiences which are full of exploration and hands-on learning. Educators were proud of the progress they made with school programs in recent years validated by the teachers' evaluations. They thought that the field trips are equally educational to parents and chaperones.

If the field trip goes as planned, educators and teachers both hope to achieve learning outcomes--affective as well as cognitive. Children's learning is connected to what they are doing in school and how the teachers implement the new information in the lesson after the field trips. Educators believe that a field trip should not end with the visit, but it should be used to build new information in the classroom.

Assessment of Field Trips

Second graders came for the field trip, had three/four program presentations, spent about two hours at the museum, and then went back to their schools. Questions that educators needed answers for were—what did the children learn? Was the field trip worth teachers' time? Did the educators meet their program goals? Evaluations are undertaken to formally assess the goals, processes, and impacts of any programs or projects. The following sections discuss educators' perceptions related to assessment of school field trip programs.

At the conclusion of the field trips, educators want to know if teachers' and 2nd graders' needs were met satisfactorily. Program assessments are important for educators to understand the effectiveness of the field trip programs. According to Educators 3 and 4, a comparison of pre- and post-field trip history quiz/test scores might provide an assessment of students' cognitive learning.

In a perfect world, we take a look at their levels testing before they go to the museum and levels test after they go to the museum. Are their history scores are going up? But making the connection between their general [test] score before and their general

score after, and connecting that to their visit to a museum, positively or negatively is impossible.

Learning outcomes that the educators expect to achieve from the 2nd grade field trips encompass cognitive learning (by supplementing the curriculum) and affective learning (a fun-filled exciting experience, which the children may want to repeat).

Educators are not aware of any scientifically proven instrument that measures cognitive and affective outcomes for young audience from short field trips. Educator 4 shared his frustrations on this issue.

The museum field and the granting and funding fields have obviously gone to wanting to see the measurable results, but I have yet to be told..how to do that. And how to do it effectively. And how to do it where it has some meaning. Now, we could administer a pre-test in the classroom. And then, a post-test after the tour about the specific things they have learned on the tour and we probably, would do OK on that. But, to get the teachers to get to tour us, take time out of their classroom before they come here and after the test, give the scores back to us--that again is a challenge, that is probably likely not going to happen.

Teachers' feedbacks on field trips are important documentation for educators to make modifications/changes in programs if teachers suggested that.

I think they need to assure it's worth their valuable time and yeah, the museum as a whole needs to know that the little modules are valuable that the kids are getting it.

Current Assessment

Getting teachers' assessments at the conclusion of field trips is a staff educator's responsibility. Teachers are requested to fill out a Program Survey (see Appendix E) to provide feedback on field trips. The School Program Coordinator and Curator of Education are responsible to review and take actions on teachers' feedback. The volunteer docents mostly get a sense of the programs' outcomes via verbal exchanges with teachers and the 2nd graders at the conclusion of the field trips.

The program survey for the field trip designed by the current educators is the only direct form of evaluation to get teachers' feedback on field trips. It is a one-page survey given to the teachers at the end of the field trip, which they fill out and send back to the museum at their convenience.

Our essential measurement tools are the teachers' surveys that are mostly geared to something like, "what did you want out of the tours?"

Through this survey, educators want teachers to rate their field trip experiences in terms of connection to the curriculum, presentation and suitability of the activities, for children's age, and educators' knowledge on presentation topics. Teachers' feedback has neither provided much constructive criticism nor suggested many changes in programs. The teachers' comments on field trips have been mostly positive.

We get lot and lots of positive feedback and I can say 95-98% of we do. And other 5-2% is not negative. It's constructive, like I wish you could have done that.

Teachers' comments have not asked for many modifications in the programs and were mostly related to logistical issues such as to have more time or to cover additional information.

the feedbacks are sent out to teachers. I would get them in the mail and look them over. Usually, there is not much to add. Sometimes, it is...they did not enough time. With that we try to do better next time, try to keep it all tight. As far as the little things about the programs, that doesn't happen a whole lot.

There are additional indirect assessments of the field trips that the educators value. These indirect assessments include everything from intuition to thank you notes from students and the hugs educators receive. Educator 6 described the feeling she had after doing the presentation at the Antoine Janis Cabin.

it is just my perspective that when these children leave the cabin I always have a great feeling. I always feel that they have experienced something that they don't everyday. I get that sense every time. I always say, "yeah" they are excited. They got little bit of past history that is not a norm of what they experience every day. I don't know I feel pretty good about it. In fact, I can honestly say that I've never felt bad about any of those classes...any of them.

Hugs that Educator 7 receives from the children at the conclusion of her presentations signal a successful implementation of the program. She thought the children show affection to educators because they truly got something out of the presentation.

That response does come because they enjoyed or got something out. I think some of it is because they learned something. Or one little portion was important for them or something or you never know what's going to hit with any particular trial.

Teachers' and parent chaperones' comments at the end of the field trip have been quite encouraging to educators. Educators have consistently received compliments from teachers and parents for the quality of the programs and their connection with the curriculum. Educator 1 shared the comment she received from teachers.

the teacher will come up at the end of the program, "That was great. That was exactly we have been studying. We are learning about the Fort. It was really fun to see it." We have had good response from teachers and parents on that one.

Chaperones accompanying students usually come and thank the educators for the historical information they learn during field trip presentations. Educator 7 considered those a testimonial of the success of the field trip.

The parents are very grateful too. They'll come up and say, "I didn't know all this. I am so glad I came with the kids today." So, yeah there is [assessment].

Generally, classroom teachers have children write thank you notes as part of post-field trip activities. These thank you notes from children addressed to educators make a valuable feedback component for the museum programs. Children's notes include descriptions and/or drawings of artifacts, objects, and activities from field trips. Educator 6 considered children's words and drawings a true validation of the field trip programs.

When they hand draw a beaver skin or beaver's hat. Then, I think, well, they connected with something. You don't want them to connect with every piece of info, but depending on that one child if they can walk away with something from that..you met your goal..you reached your goal...you reached them somehow.

We received quite a bit of positive feedback and that comes in a variety of ways. Whether it would be coming up to writing and thanking us for the programs, for us taking the time, for us find a programs for their students.

According to Educator 4, such testimonials do not pass the scientific rigor to measure learning, but are good enough to pick up trends of students' gain from field trips. Educators thought that they have fulfilled the purpose of the field trips well and have met the teachers' expectations from the annual museum field trip.

While teachers' comments on field trips are not too specific, students' drawings or writings show a definite pattern of learning. The things children liked

the most and connected with, and the information that amazed or astounded them, have been part of the notes that children wrote to educators. It amazes Educator 2 how well some children write and how many details of field trips they remember.

Some are well written and eloquent for a 2nd grade level, and some of them are even eloquent for someone in high school. At the 2nd grade level, they will list a number of things they did here or write their experience. And then you look at some of the responses or some of the things that children took away and you are wondering, "Is that what I actually shared it with them"?

They remember a small piece of info about the dirt floor in one of these cabins. It is the ox blood and that's one thing that they are going to remember the most and there are others it's something small like they liked the rocks that would glow in the dark inside the "Rock this town" exhibit. They don't have language to say fluorescent but they do know that they glow in the dark and that's the one thing that they remembered that they saw here.

The pattern observed by the educators in students' notes and drawings suggested which exhibits and activities children liked the most. Repeated mentions of the *Boxelder Schoolhouse* and its activities in the children's thank you notes suggest 2nd graders liked it the most. A school defines the world of a 2nd grader. Their familiarity with schools, classrooms, teachers, and school day routine provides contexts to connect with the schoolhouse. Hands-on activities that are part of the presentations such as writing on slates, sitting on old-fashioned desks, and doing a class routine of 1905 are fascinating to children. That is what differentiates the one-room schoolhouse from their current schools and makes it fascinating to children.

It is something that inherently one coming in with a school group is familiar already. It's that chance of those connections that it is almost like where I go to school but it is different enough. And it's at the same time one of those good places where figuring out things on their own that are different.

Educator 7 distinguished preferences of girls from boys' and suggested the following reasoning for the differences.

probably one thing that impresses them [girls] is the youth of their teacher. That she could possibly be 16 years old. Eighteen at the very most, and handling the teaching, and the janitor job and everything that went on with the school and yet I am not sure that they really see what a big job it was.

She thought boys like *Build the Fort* because they are interested to know about the military fort, soldiers, and horse cavalry.

I would say the boys the Fort the best and the thought of riding horses and I don't think they have any concept of hardship in military life.

Educator 3 thought children enjoy coming to the *Auntie Stone Cabin* because she is a legend in Fort Collins history. Her cabin is the only building structure left of what was Camp Collins. Stone's accomplishments as the first female business owner and fighter for women's rights make children interested in her cabin. Children enjoy the sugar beet (bean bags) throwing activity associated with the *Farming in Fort Collins* associated with the *Franz-Smith Cabin*. Educator 2 thought that children like any hands-on activity for its experience and Educator 5 felt that doing things physically builds a connection with what the children have been studying in the classroom.

I think the ones they respond to really well are the hands-on activities where they can put themselves out working on the farm, whether it be grinding corn or throwing bean bags that represent sugar beets. That's very hands-on. They are not just one chance to get them all, they are involved with the whole thing. It is fun, they are running in place and throwing these things, which is great for the immersive experience that happens to be.

Artifacts such as Folsom points if they have studied in school become real when children see them and touch their replicas. Educator 6 thought that in today's technologically connected world where machines/computer mouse clicks have taken over the actual tactile capabilities, hands-on interactive activities give children an opportunity to experience history through their senses.

Educators said that children like *Build the Fort*, a hands-on activity part of the Auntie Stone's Cabin presentation. Children sit in a circle in the cabin and the educator involves them by laying out building blocks of Camp Collins one-by-one. The last block that is added to the map is the Auntie Stone's Cabin. Seeing that the one block that is left of the Camp Collins is Auntie Stone's Cabin and they are sitting on the floor of that cabin is a 'aha' moment for children.

I really think that *Build the Fort* activity is the one they put the blocks on. We tell the docents to do it this way where each child should have a role to play building the Fort and the map. You are in Auntie Stone's cabin. It feels so good to have that last block,

that's Auntie Stone's Cabin, putting it on that map and the kids kind of get that 'aha' that they are in that building.

The idea that they are in Auntie Stone's house at that moment, which was built over a century ago, is quite fascinating to children.

Educator 2 thought having this cabin in the historic courtyard is an asset to the museum and it has made a legend of Auntie Stone's life story for children. Educator 1 had seen children taking pictures and re-building the map. Among other activities, children enjoy writing on slates in *Boxelder Schoolhouse* and throwing bean bags as sugar beets when they learn farming of the area. Whether it is writing on slates, throwing bean bags to simulate sugar beet loading, or grinding corn and carding wool—these are hooks to engage children through experience.

Educators expect that the museum experience would stay in children's memory for a long time. They cannot say the same for the information that accompanies the experience. Educator 2, who has many years of informal teaching experience with different age groups, thought 7-8 year olds are too young to apply the field trip information any further than their school curriculum.

Most 2nd graders are still getting those experiences but not doing any follow-up yet. With some of the older students that come through we definitely see that.....Second grade...they are still getting their first hand experience that will lead them in time to know more about things.

Educators felt that the experience of the trip helps children see things in a personal context they already have either from home or from school. This knowledge acts as the scaffolding to build new information. Educator 2 believed that an experience at the museum can lead to bigger things.

I have the language to verbalize....but you can start seeing those wheels churning. And, following changes that sprung up the past--what they used for heat, what did it entail to get that stove to be made from the wood that made you sit close to the fire. There are consequences for those actions. It is something very simple--a wood burning stove in the middle of the room but you can extrapolate.

Understanding how things are different today from the past comes from hands-on and tactile experiences. Second graders are not cognitively ready to

understand the difference between 100 and 150 years, but they can understand the difference between old and older. If Auntie Stone's cabin is old, Antoine Janis's house must be older because it has a dirt floor. Understanding history of the Folsom people, who traveled through the area approximately 12,000 years ago, is even a harder concept to grasp. When children see the Folsom points displayed at the museum, they understand these as history that happened a very long time ago and before Antoine Janis and Auntie Stone.

No, they get the concept that it was a very long time ago. But, so was Boxelder School. It is all in a puddle of 'long time ago'. But, still I think that intellectually they can understand that people who were carving arrowhead are of different era than people who were laying out the streets of FC.

It is the differences and the similarities between things of the past and present that contribute to children's understanding the chronology and timeline.

it is a contrast to what they know, you know. It's just like showing them (stuff) from 100 years ago. Thinking about children in early colonial times probably fascinated them. I think the past fascinates us all. The thing that people lived in such a different way we can't really comprehend it, even more so for kids these days because of electronics. That's so removed for them.

Teachers' Role in Student Learning

Educators believed that students' learning at the museum is a function of what their teachers teach before and after the field trip in the classrooms. These views are based on the differences of participation between the school groups who had background knowledge on the topics versus the groups who did not. How teachers prepare their students for the trips and how they reinforce information after the field trip are two important factors contributing in students' learning.

good teacher in the classroom is going to build all these experience. They should prep them up for their visit, pay attention to what's going on in the visit, and then, as they go back into their classroom and as curriculum sort of points towards some of these things, I would think it would be natural to say, "remember when we were at the museum and we were looking at beaver pelts". Sort of make that connection in the classroom. So, it is up to the educator really sort of put a bow on the whole package.

They are willing to collaborate with teachers to re-design curriculum-appropriate pre- and post-activities, but teachers have not asked for any supplementary materials.

Educators are not aware of any formal preparation teachers and students do in schools related to museum field trip, except for the occasional trunk check outs.

You see that spectrum of teachers for an opportunity for extension of what they are doing in the classroom and for some it is what they do in 2nd grade. Sometimes the teachers don't completely know why they are coming. I still feel that the students can get a lot out of these field trips. It is hard to say what kind of learning happens on the field trips, as each audience is different. I would like to get the teachers to think of the museum as a resource. That's one of those things I am ambitious about but I haven't had time to pursue.

As pre- or post-visit activities, trunks can be used to reinforce ideas and concepts gained from field trips. This is an area that educators want to expand and encourage teachers to use.

One of the things that I am working right now is the new brochure for the trunks. That makes it little bit more obvious as to what trunks cover. Our current brochure is little out dated and lists coming soon our new archeology trunk, native America, and Plains Indians. By next fall, the new brochure will give info on trunks in detail but also answers the commonly asked questions about what the trunks are for, what are the charges as it is little confusing in the old brochure.

Educator 5, who taught 2nd graders for many years, as their teacher she felt responsible for children's learning and used the class activities for pre- and post-connection to field trips. Some teachers prefer to check out the trunks to supplement teaching.

Sometimes they would checkout the trunks. Sometimes they checkout the Schoolhouse trunk and do a whole school day in the classroom. I know some teachers did that. Pretty much from the trunk checkout you can get a sense what they are doing in their classrooms connected with their field trip that the museum offers.

For mutual benefit, educators encourage teachers to use the museum or its professional staff as educational resources and partners. Educator 2 wanted teachers to provide constructive feedback so the programming can be aligned to teachers' and students' needs.

Time to time you may find that there are areas for possible improvement and that's very important as well, but, that's going back to our relationship with the teachers. If they may have not communicated what they wanted but they didn't get what they wanted they'll let you know and that way you can address that or do follow up with the teachers.

Teachers must take advantage of the open communication channel with educators and use them as a resource to find answers to children's queries before or after the field trips. This option has not been widely availed by teachers.

Educators' Assessment of Programs

Educators thought that 2nd field trips currently match the curriculum well and are satisfied with the progress and changes implemented in the programs in the last four years to make the programs suitable for the 2nd graders--cognitively as well as developmentally.

I think overall the museum has made really great strides. I had fun with those tours and the kids had fun. Where it is now..the activities...they look totally different. It's great!!

They are also aware of the issues and gap in the programming that need addressing to better serve their school audiences. Some of these issues are related to program expansion and some to assessments. Depending on resources and time available, educators wanted to take the following actions and make the field trip programming better.

1. Collaborate with teachers to re-design pre- and post-field trip activities to reinforce field trips.

We can provide those materials for the teachers, both of those for pre- and post-field trip activities. It is up to the teachers and how they utilize these activities.

2. Expand trunk programs to be used in classroom as pre- and post-trip activities.
3. Explore methods to raise teacher expectations, connecting programs with pre- and post-field trip activities, and putting in more resources, etc.
4. Design post-field trip activities such as a puzzle or a quiz for students to fill out. Teachers can later return those to the educators to assess learning.

It would have been nice to have done something like that, and had something the children could have sent back to the museum. I don't know what that would be.

5. Develop a research-based instrument to understand school teachers' assessment of the FCM school field trips. Educator 3 thought that her professional and academic experience helped her gain more insight on program evaluations and assessment instruments.

I came up with some of them [survey questions] without having the background knowledge in assessing and evaluation. I think I am more informed now from my master's. I learned a lot about evaluating and assessing your needs before you do a program and then evaluating your objectives, making sure you are meeting your outcomes and evaluating it. But, I think four years ago I wasn't as aware of that.

6. Analyze teachers' comments and feedback using expert intervention to identify trends.

That's a good project for someone to look at our evaluations. It could use some (intervention). Because I think there is a lot of research out there how to assess the learning and I don't think we ever had an expert come in and help us with that. So, I think it would be really helpful without having to get kids to take a quiz.

7. Educate teachers about the museum resources available to supplement classroom teaching; raise and clarify expectations.

These were some ideas for actions that educators wanted to pursue as a result of their own assessment of the field trips. These actions were tied to the challenges they faced from within and from outside. The challenges limiting the educators are discussed in the next sections.

Field Trip Challenges

Educators talked about the challenges that directly and/or indirectly limit the field trip programs' delivery. These challenges include finding time to work on many education-related projects, field trip durations, educator shortage to do programs, and building constraints to name a few. There are some limitations that the educators have no control over so they do their best under the circumstances. Inclement weather, late buses, and consequently less time for field trips are issues that demand flexibility on educators' part. Here is what educators shared about the challenges they face in delivering the field trips to 2nd graders.

Museum Building

Since 1976, FCM is housed in the building originally constructed as the Carnegie Library in 1904. The building and lack of space are probably the biggest challenges for educators as there is no greeting area, classroom, or lunch room. The front main doors open in the main museum gallery. These doors are generally kept

locked and opened only on rare occasions to get a school group quickly out the building if they were running late. Educators find it frustrating when teachers show up at the museum's locked front doors despite instructions to use the side gates.

The building is small and is not suited to accommodate large groups at one time. Having 60-80 children with teachers and chaperones in the museum gallery is simply not feasible. The cabin tours help distribute a large group of children in rotations to avoid having too many in the gallery at a time.

I think the one of the biggest challenge is the size of the museum itself. In fact the building was never intended to have large groups of people descending upon the elevator at any time. The gallery is only accessible through an elevator. If you have more people they can't put them all in an elevator. So, there are limitations there.

we couldn't deal with 80 kids in the gallery at once. And we don't have a room and it's noisy and we don't have a lot of ability to do a lot of hands-on and experiential stuff in the galleries. So, the physical space of this building or the museum itself is very limiting. But, because of that, it provides more challenges in teaching with artifacts.

To aggravate the problem further the elevator which holds eight people at a time, is the only way to get to the gallery.

We have the elevator, so it's really hard to get students just around. Probably that's my biggest frustration.....Sounds so stupid! We have to go up that thing. We have to pack all these kids in there. It is so hard and takes so much time. It is a waste of time. Time is the essence.

Another issue related to the building design is that the museum has only two restrooms each equipped with two stalls. These are located on the main floor of the museum building. It becomes time consuming if a group of children have to use the restrooms at the same time. It takes time away from the scheduled field trip an issue where educators already feel restricted.

This is very mundane but it is an issue when they show up every single time to use the bathroom you lost your whole first 20 minutes. So, the bathroom is one.

Second graders visiting the museum in winter need an indoor lunch room. Providing a place for lunch is not educators' responsibility, though during inclement weather educators have had made arrangements to help teachers.

Sometimes we refer them to the library park. Out of desperation twice, I actually have to let the kids eat at the Webster House. They were so miserable out, they came

expecting to eat in the park. We don't advertise that. All we could do was to make those kids comfortable. We didn't have a choice.

Educator/Docent Shortage

Just like many other museums around the country, FCM depends on the availability of volunteer docents to run its field trip programs. A pool of trained docents is tapped to schedule presentations for school groups. Ideally, to do a two-hour field trip, it requires 3-4 educators including one staff member. Finding docents on days and at times school groups are scheduled gets difficult at times.

Finding the docents and getting large [groups], with say 80 students coming in any single time. We are going to need three more docents in a single morning over a period of about sometimes two to three hours. That can be tricky at times. So, when setting up programs for certain days, it's a problem as we don't have a full-time education staff. I don't have the luxury of educators.

For Educator 3, having a consistent pool of trained docents is an important aspect to run the education department smoothly. To have docents volunteering over a longer period, educators try not to overwhelm their core docents by asking too much of their time.

Luckily we have some core docents.....who have been here continuously for like five years. But, with that limitation you also have to make sure that you don't overwhelm the docents.

Time Constraints

A full-time staff educator is responsible for writing new programs, communicating with teachers, scheduling, and doing field trip presentations. The educator admitted that he doesn't have time to complete all aspects of his job responsibilities. He has to prioritize and allocate time to handle many projects at a time.

it is just finding the time to write all those types of programs that's one of those projects that's out there right now and that may hopefully see some fruition.

The educator who held the position until last year divided her 40 hours between education (30 hours) and accounting (10 hours).

When I did this job, I did 30 hours education and 10 hours accounting. As you know they don't always go together.....is full-time which is so great. The position is so worth to have full-time....There is so much you can do. There is always more you can do!

She spent time revamping the education programs which was a priority. Her ideas for many potential projects such as writing pre- and post-field trip activities did not materialize due to time constraints. Those were passed on as a "to do" list to the current educator.

Docents feel rushed during the presentations when children arrive late or keep less than 90 minutes for the museum field trips. They thought that doing a hands-on and interactive presentation in 20-25 minutes is hard. To do it in less time (10-15 minutes) is even harder as they have to cut down many presentation details. Educator 7 thought the long introductions at the museum gates are unnecessary as it shortens the presentation time. She wanted children to quickly get to what they came to do.

A large 2nd grade group (~80 children) which means having 20 or more children per rotation is an issue that limits interaction and exchange between educators and children, according to Educator 3. Dividing children into smaller groups (~15 children) increases the number of rotations per school group and requires more docents and time, neither is at the educators' disposal in the current program set up.

Field Trip Programming

The museum administrators identified the historic cabins as one of the limiting factors for the museum programming.

Those cabins do not define what it is we can do, or the stories we can tell in any museum here. Those cabins sometimes they are constricting us what we tell in a local history museum.....we have 10-12 thousand years of human occupation in the FC area. But, our context stuff in the courtyard is about 75 years....They [school groups] want to be in the cabin and that's what they learn.

The historic cabins represent a recent history (100-150 years) of the northern Colorado. The artifacts in the museum gallery represent the culture of Folsom Man

who lived in the region 10-12 thousand years ago. There were Native Americans who lived in this area before westerners moved in the middle of the 1800s. The presentation at *Antoine Janis's Cabin* briefly touches upon the peaceful trading between westerners and Native Americans but it still is a "dead white guy" story.

There are so many other stories we could tell only it is harder to tell in those cabins. These cabins are so physically evocative and they set a structure, particularly for 2nd graders--that where that child comes in of dealing with other stories with just those buildings, that's very limiting.

Educator 4 called the cabins "millstones" (a burden or large inconvenience one has to endure) for the museum. Most people including teachers and their students perceive these as the main museum attraction, but FCM can offer better programming opportunities without the cabins.

I do call those millstone, many many other people think it's the key to what we do here. Guess what..that's what makes this profession fun is that there is million diff ways to approach this stuff and everybody's got different opinions on these things. Based on my background experience I see those as limiting factors, other people see those as the lynch pin to our educational programs what we do with kids because we have these [cabins] experiential things out there.

Each program has a set format for educators to follow and includes talking, doing an activity, and interacting with children. Educator 5 thought that *Build the Fort* is one program where connecting with a large group of children is not easy.

The materials there just doesn't grab them quite as much because everybody can't be doing that one thing at a time, because there is no physical way.

In this program, children build the map of Camp Collins, one block at a time. The program format does not include participation of all children at the same time. The format differs from the *Boxelder Schoolhouse* presentations where the whole group does the activities together such as calisthenics, writing on slates, singing, etc.

The activity *Build the Fort* introduces children to the names of many founding members of the Fort Collins community. It tells the story how the town got its start as a military camp. Educators felt restricted in giving details and engaging them if the children do not have any background knowledge of the topic. That one is really dependent on how much the background the kids have.

You have to kind of do it differently if they know everything already. That to me was a hard one to teach from square one if they (children) have no background when they got there with so much to get across.

Educators feel limited by the lack of diversity in the museum programs. The collection does not truly represent the multicultural diversity of the area. There are not enough artifacts representative of Native American and/or Hispanic cultures.

Most of the stuff that we have, deals with the dead white guy story in FC history and that's not the only story we want to tell. As the museum is an artifacts, collection based institution, we got to have the artifacts in the collection to tell the stories. When we have gaps and are short on Hispanics stuff, or we are short on...it gets harder to fill those gaps.

Educators feel that the age (normally 7–8 years) of 2nd graders is a limiting factor in terms of their cognitive preparedness; nevertheless they developed as interactive, engaging, and fun presentations as they could. They utilize the experiential aspect of cabins suited best for younger children. They think that the 2nd graders can understand information from a personal context. At this age (7-8 years), they are not ready for the information that is outside their personal frame of reference. Teaching prehistoric information to young children is a challenge that the educators felt strongly about. Educator 4 expressed his feelings on this issue.

our field trips reflect the fact that we are dealing with 2nd graders as opposed to kids that are a little older, or kids with little more cognitive skills where we can really do things or talk about things would take more. But, until PSD changes their curriculum schedule we are sort of stuck!

Educator 3 felt that history is a hard thing to comprehend as it talks about things and events that took place a long time ago. They need to keep things at the level that children can grasp. Programs focusing on the differences between past and present help 2nd graders understand the chronological concept of "old" and "older."

Teachers who have been bringing their students to the museum year-after-year like the current program formats. Educators felt that if they tried to change the format of the programs, some of the regular teachers might resist those changes. Educator 4 thought changing to a new program format would be a challenge.

We are often limited with teachers who have been bringing their kids year after year after year, they have that comfort level of what we do. And to break into something new or to do things differently, sometimes meets resistance.....To develop a sense of comfort with the museum that we do know what we are doing and that we are interested in supporting your student learning. We are going to do all differently this year and that's always a challenge to change those.

To many 2nd grade teachers a museum field trip means a tour of the historic cabins as they do not associate the permanent artifacts of the gallery as part of their field trip or of the school curriculum. Educators wanted children to experience the museum, whereas teachers bring their students to experience cabins in the historic courtyard which represents recent history of the area.

we do on our school tours in 2nd grades that we sort of focus on the experiencing the cabins. And, we use a very hands-on approach to that experience. That's the way we have to deal with the 2nd grade. I sometimes get frustrated that a lot of times they don't want to do anything but tour the cabins.....I think not everybody understands or appreciates what museums have to offer. So, again that's part of the educational process on our end.

Educators have to nudge teachers and their student to participate in scavenger hunts or to do *Name the Street* to get the group inside the museum gallery. Many teachers are not aware of how to best use the museum resources. The educators' idea of students experiencing the museum gallery and not just visiting the cabins outside is met with resistance from teachers. Educators felt limited in finding a resourceful way to directly connect with teachers and to raise learning expectations from the museum field trips.

Weather Limitations

Weather conditions over which educators have no control can demand impromptu changes in school programs. Field trip programs in most part are held outside in the courtyard where the historic cabins are located. The cabins are not climate-controlled and the conditions can be frigid in winter. In such weather, the educators would not do the beet throwing and corn grinding activities and keep children indoors. At one time, Educator 1 arranged the bean bag throwing activity in the museum gallery for a group whose teacher insisted upon doing the activity

despite the cold. Educators modify and accommodate as much as they can so the children can have a fulfilling field trip.

Educators' Perceptions of Teachers' Challenges

Educators are aware of the challenges teachers face in organizing museum field trips and so, they try to be as accommodating and flexible as possible. Funding for transportation, finding a suitable time/day for field trip, and scheduling buses are three main issues that may hamper teachers' plans to visit the museum and may indirectly affect the FCM programs.

I think for the field trips from teachers' perspective it is the bus money and time. So, funding, bus availability, and time out of the classroom.

Schools with limited funds ask parents to drive children for the field trip or pool money for buses. Schools nearby may ask children to walk to the museum and may combine it with a tour of the Old Town.

Transportation is probably a big one for them. I have had groups come. They all came in a Brigade or parents would drive them to save money. Some group would take the bus to the museum. That's big.

Teachers may have an agenda to spend more than two hours at the museum, but they are limited by transport availability. School buses have a set timetable for the daily school trips. The buses need to be booked ahead of time and scheduling limitations restrict teachers to reserve the buses with drivers only on certain days and times of the week. This restricts the duration of time that children can spend at the museum.

Yeah, just because of say...the transportation issues, looking for a bus for the day, and justify their trip going to a walking tour of the Old Town and visit us, and that limits their time with us for just 2 hours or so. The students can get a much fuller experience at the museum.

Do they need to be back to lunch in school, or they have to be back in time for dismissal, what time they can arrive in the morning, they have to wait to find a bus until they are done doing their regular bus routes before they are available.

Late arrival due to buses running late or loading 60-80 children and their chaperones causes delays and, thus, shortens the field trip. Educators were concerned about

punctuality as it helps both institutions maximize gains from field trips. Educator 6 strongly believed that doing a museum field trip in less than two hours is too short. For substantial learning gains, the children need to spend at least a half-day like 4th graders do for *Rendezvous*.

To fully utilize their time away from school, some teachers plan tours of the Old Town along with the museum field trips, which takes away from the time the children could have spent at the museum.

With an hour's time from their arrival they need to be back on their bus to get to their next destination or walking to the Old Town, or whatever their lunch destination might be. Whether having it in the park or having pizza at Beaujo's. Yeah, again, it is time. Teachers might stuff it with too much and it is too hard to get the group moving in time.

In hopes to cover everything that is there to see in the Old Town, teachers rush their students in and out of the museum. Educators 6 felt that the teachers who rush their students from cabin to cabin and not let them enjoy the museum, actually hinder students' learning. She perceives museum learning to be fun, engaging, and exciting without being restricted by time.

Sometimes learning is not about time restrictions. Learning is about having fun and getting involved and getting excited. I don't think you can cram that into a time slot. But, we have what we have. That's how we have to work with it.

According to Educator 5, a field trip close to lunch time can be distracting. She had spent many years with the 2nd graders to know that field trips are special for children. It's a special day away from the school traveling on a school bus with friends and teachers and visiting a museum. Children sometimes bring some special treats to eat. She shared her insights about 2nd graders.

Another one, this is silly, we have found from the teachers' end if they bring their lunch along they get so excited—they only get a *lunchable* once a month for a field trip or if they leave school, and they say, "is it lunchtime?" You know they got their mouth watered for this lunchable. So, this is extraneous. So, if you get them first thing in the morning when they are not thinking about lunch yet, that's really nice.

Resolution of Challenges

There are challenges at both institutions, but educators have found ways to work around them at the museum. Doing programs in rotations helps avoid crowding in the gallery and in the elevator. It also eases the restroom situation when smaller groups can take short breaks and use their turn on their way to the museum gallery.

Educators are accessible via phone or e-mail and try to accommodate school groups for time and days most suitable to teachers. They have arranged field trips on Mondays (the museum is closed on Mondays) if it was the only day teachers could find transportation.

I hate saying 'no' to teachers. On a Monday, when the museum is closed, I have scheduled school groups on Mondays from time to time, if that's the only time the students can come, then I'll open up just for them.

In case of docent unavailability, educators from other departments are scheduled to do presentations.

If we do not find docents that day, that means a graft from other responsibilities of the staff members that are capable of and able to go out.

They try to make these trips memorable to all children despite changes due to weather or late arrival at the museum. They acknowledge lack of space at the museum and direct groups to the library park if teachers want a place for children to have lunch. Generally, teachers do not ask for any changes in the programs. If they do, educators are willing to make modifications in the program content.

The museum has its fair share of challenges and limitations that they try to work around. Educator 2, in charge for coordinating programs with schools, takes it all in good spirit.

Take those things that are deficits and turn them into strengths..... Sometimes there can be challenges. I won't say there are limitations because there are ways, always ways to work around them.

Communication with teachers can help overcome some of the challenges and improve practices to enhance student learning and experience on field trips. Despite

open channels of communication and accessibility, teachers have not reached out to the educators except for scheduling school field trips or arranging for trunk pick-ups.

Ideal and Best Practices

Educators think that the FCM field trip programs for 2nd graders are in a good position as they match the curriculum, include experiential aspects in each presentation, and are well received by teachers and students. To attain the ideal, educators need resources--time and personnel and resolutions of the museum's and schools' limitations.

Ideal Field trips

If teachers spend time in classrooms to prepare the students for the trip, it results in much more interactive presentations. Children respond to activities and interaction better if they have some background knowledge on local history. Setting the stage for the museum trip in school helps children to be in the thinking mode and prepared to ask question during the presentations. A group of 2nd graders impressed Educator 2 by showing the information they remembered from their earlier museum trip. This is what makes an "ideal field trip" for him.

Educator 3 felt that having 12-15 children per group would make an ideal trip. Docents wanted school groups to come on time so they do not have to rush through their presentations. Educator 5 wanted to see disciplined group without bathroom breaks or late buses. Educator 6 wished children could spend more time on field trips like the 4th graders do on *Rendezvous* days where they get half a day to attend several programs, do activities, and explore museum premises. The logistics of an ideal trip according to Educator 1 are included in the following quote.

small groups, three docents, and one staff person to monitor, docents are excited and know their programs really well, kids come with a little bit of just enough knowledge to pique the interest and ready to learn, weather is sunny. They come and it is before lunch so they know the lunch is coming because they always get hungry and tired. Everything runs according to the time and they end their tour with coming in the museum, getting their little scavenger hunt and they stay around there, having a little bit of free time.

Educator 2 sees an ideal field trip as an opportunity for each child having an experience and learning and sharing the new acquired knowledge with someone.

The scope of the learning is beyond a simple local history lesson.

Ideally, I would like to see that getting the children come out here as much is the key mission. I like to see students come in, ask questions, learn things, come back with their parents to show what they had seen. I find that when you know enough about something and you share with others you get a good grasp of things. So, for me that's the ideal trip. Meeting their [visitors'] definitions and goals and what they have been expecting out of this trip, I think that's a good day in office for me!

Best Practices

With the challenges described in the previous section, it would be hard to achieve the ideal, but educators make efforts for program delivery for each school group which is *close to ideal* or is their *best*. The programs offerings are similar for all school groups; however some field trips turn out to be closer to the ideal than the others. Educators discussed the factors contributing in successful implementation of field trip presentations.

Staff educators thought that the programs can be improved and made better for the 2nd graders. In contrast, docents thought the programs as offered today require no changing.

I think the way it is set up now is very efficient, very educational, [and] very child-friendly! I think my ideal would be for the exact way it is set up to actually come off....It is really-really well planned, very-very child friendly.

Educator 5 was proud of the program *Boxelder Schoolhouse* she had written and had been presenting it to children for many years. She thought the presentation is "awesome" and effectively "gets the point across." Educator 6 shared her views on Antoine Janis Cabin, a presentation she prefers to give.

I love the props. I love what they have in the cabin. I love the format of the presentation. I think for that age group it is pretty good and again, you need further or additional info as well because I researched it. I know about the Native American or some of that they have. I think it's fine, it's good.

Educator 7 thought the programs utilizing the historic cabins are good and appropriate for the 2nd graders.

I actually think the museum as far as the 2nd grade program is quite complete with the time we are giving tour....[and] have given to be with the kids.

Educators felt that teachers should share the responsibility in making field trip a meaningful and memorable learning experience for children. How they prepare their students and what they do to reinforce the information provided by the educators on field trips have a direct effect on students' learning. Teachers must prepare and bring students in the "field trip learning mode." It helps educators to deliver better presentations if children demonstrate an "expectation of learning and good behavior." Children who are excited about the field trip help educators and teachers achieve their goals and translate teaching into learning. An educator exuberating enthusiasm for teaching history always gets the children's attention.

I think enthusiasm. Just make it as fun as they can. That's really it. Because the facts are there, the facts never change, the dates never change. How you present them, how you make them fun, how you just incorporate them and make them feel...like a 2nd grade won't say, "this is really relevant to my life." But, if they feel that.....I think that's what's important. They make a connection...just a connection.

Educator 2 supported the notion that the educator's enthusiasm for the information gets transferred to children.

I have found that if you are enthusiastic about the things you are talking about and those elements makes it much easier for the students to pay attention. If you are really having a good time they are going to have good time as well. That enthusiasm is infectious. Dreary, dull, droning, didactic elements are infecting as well.

Educator 6 thought that 90% of the teachers are gifted and want children to learn, but it is the education system that relies more for assessments through testing, gets into their way.

I've seen some teachers come there and you can tell the enthusiasm they have for their children, and other teachers are like—ok, you get them in the cabin for 20 minutes and I am out of here. So, I know it varies from teacher to teacher.

You can tell they have this kind of this brightness about it. They want to be there for their children. They want to be teaching. I see some teachers and I go, "oh, shouldn't you be retiring?" I don't know them as people, I don't know...their dog could have died that morning and they looked sad. It could be something. If they want to do that (teaching) professionally, they have a responsibility.

Educators' Ideas for Change/Improvement for Future

Educators were cognizant of the gaps in museum programming. They were pleased with the changes they had made in the programs in the last four years, but recognized that there is "always room for improvement." Educators shared their ideas for changes that they think would make the museum offerings better for schools.

Museum Programming

Educators thought they can aim to meet curriculum standards of additional subjects/topics through museum programs which would probably materialize after the anticipated merger with Discovery Science Center.

I think we would be able to meet more standards. I think we could do that here too, but we are not going to take the time to redevelop with that much. I don't think while we are here, it's going to be more for the new space. It just makes more sense. I just think that there is more opportunity to do that with the Science Center.

Educators want the programs to include the Native American perspectives. This is an area some teachers have asked to be included in field trips.

We could have gotten something with native focus, that is where we are lacking and the teachers have asked about that. That would be one. We touch on it [Native American] little bit with one program but even that one is more about Antoine Janis, not so much about [Native Americans]. That would have been an improvement. There is a lot we can do with that.

Educator 6 suggested having a toned-down version of *Rendezvous* for 2nd graders and to have them spend more time at the museum.

Docent Training

Educator 3 wanted the FCM's docent training program to be ongoing. She wanted to invite speakers to do presentations and give lectures on topics such as, childhood education, interpretation, and teaching practices, etc., as part of the docent training.

we are hoping for a more concise training program where we get more staff involved and bringing outside lecturers to talk about trapping and trading. Maybe there would be programs every month where they can learn about some topics in Fort Collins history. May be once month we have someone from childhood education come and talk about child development. Or may be we have someone come and talk about

interpretation. How to relay your main idea and ask inquiry based questions or things like that. You know the teaching styles. I just think if somehow we can continue our training. Yeah, and increase the size of it.

Docents trained on various facets of children's education will be able to apply those theories in teaching. Through engaging program and activities children would get to better understand the role and functioning of a museum.

Museum Outreach

Educators had been working on a new brochure to expand museum's trunk program. With trunk programs, educators wanted to continue to support 2nd grades but also reach to students in 3rd and higher grades. Educator 1 wanted to see the presentation *Name the Street* changed to a trunk program. Educator 2 projected the idea of expansion of school programs to subjects other than social studies such as science and arts. He also wanted to offer pre- and post-field trip activities to seamlessly integrate field trips and classroom teaching.

I want programs to tie these trips into other areas including social studies. I want to have programs that are all-inclusive of what goes on before the students come in and what goes on after. Really embrace that style of learning but you can't see it. But these are a lot of things you need. Those facts and formulas, the language that you expand.....I want to develop some pre- and follow ups that really do connect with the children. Exercises and activities that ties in with what they are learning.

He agreed that museum outreach to do presentations in schools can also strengthen the partnership, but visiting schools would demand time and personnel.

It would have been great to do in classroom presentations for museums and go to the schools when they cannot come. That could have solved part of that bus problem, scheduling, transportation, etc. Any of those aspects could make it a stronger partnership. That's all doable.

Posting the program schedule and calendar online, so teachers can reserve their field trip dates and time electronically was suggested by an educator.

Educators' Perceptions of Relationship with Schools

When asked about their relations with schools and the teachers, educators thought the museum can do more to establish a true partnership. Educator 1 preferred to call the current situation a relationship as there is not much direct

communication with teachers and suggested having a teachers' advisory board to work with the museum professionals might help take this relationship to the level of partnership.

Maybe we can have a teachers advisory board, it could be more like a partnership rather than relationship. Be great to have teachers on board. It would be great to go to the classrooms and see how teachers are prepping for tours. I always wanted to see how at their end [they] wanted to have a relationship and partnership.

Initiating direct talks with teachers could start on a small scale to find out what teachers expect from the museum to form an ideal partnership.

Maybe getting a committee of teachers to just talk about what's changing in the school system that a 2nd grade teacher museum advisory committee. We have a social studies curriculum coordinator on that. I just think to have more dialogue.

Educator 4 commented that strengthening relationships with teachers is museum's responsibility, which will need dialogue. It is crucial to develop new programs based on the dialogue with teachers to be offered at the new facility.

I would like to see and assume we will see in next three years is a fresh deeper fostering of a relation with the school district at both level, at the coordinator level but also at the individual teacher level. I would hope that we would be able to find handful of teachers that would be able to form an advisory group. Though as we talk about these things and what we can do in the new facility, but again it is a symbiotic thing not just us in the vacuum zone where we can do great programs which then turns out that it's nothing that helps them in the classroom.

Educator 4 felt that it is a great time to start dialogue with teachers to understand what their needs are and how these can be fulfilled through museum programming. Inviting teachers to a Teacher Open House to understand their needs would be a step toward strengthening partnership with schools.

to get some dialogue going between the museum and the teachers, to have the teachers feel more comfortable asking us, requesting their needs, helping the teachers see us as a resource.

To Educator 6, the relationship with schools would be ideal when each and every PSD student is able to experience the museum. Offering programs for diverse ages and grades is an area where the museum professionals may face potential obstacles. Schools cannot have museum field trips in every grade. The curriculum has ties in the 2nd and 4th grades. Expansion of museum programs to other grades

or subjects will not appeal to teachers who want to make field trips to a variety of places. Educator 3 provided a rationale of this limitation.

I think that by increasing the grades that come here it goes back to some of the limitations that schools have. We can't expect kids to come to the museum every grade. Because then they are not going to do the field trip that they do in 5th grade.

Educators hoped to provide the best, if not ideal, by expanding their programs and matching curriculum standards of science, history, art, and social studies, once the museum merges with the science center. They were optimistic about the future of their school field trip programs and continuing service to schools, teachers, and their students.

Future of Field Trips

In the previous sections, educators discussed the perceptions of their actual and ideal practices for the 2nd grade field trips. The gap between the ideal and the actual practices is contributed to challenges some of which are related to logistics (i.e., time, group size, space, etc.) and some to the content of museum programming (i.e., program expansion). Educators thought managing the content-related issues are easier than handling the logistics which they have little control over.

Educators are committed to providing continual curriculum support and service to 2nd grade teachers and their students irrespective of the merger and move to the new facility.

For 2nd graders I don't see them [the field trips] changing too much. But, I could be wrong. I think they are going to be very successful is what I definitely know. I know they have improved over the last four years a lot so I know why we going to continue to see [them grow]. I don't see a large change that would prevent them from coming to the museum with the funding or anything. So, I think that will stay pretty consistent.

Educators will continue to offer field trips to the 2nd grade audience supporting the local history curriculum. However, in the next three years, educators do not foresee any big changes related to 2nd grade field trips. They need these years to prepare

for a transition to their new facility in the north part of Fort Collins and merger with the Discovery Science Center (DSC).

I think it is inevitable that we will transform as we get closer to being a larger entity with the partnership [with DSC]. What are these changes going to be..is hard to say....But, with what we are able to offer my primary goal will be maintaining the integrity of the [field trip] programs, that will be very important to me.

They believe that moving to the new facility will open up new opportunities for school programs.

I think with the new building is going to be build on the Poudre River which really will incorporate the history further up this area and the importance of water in the west, the Poudre river to Fort Collins. It is down there where some of the older buildings are. I hope they move the cabins down to the river, I don't know if they will. I think it will just get better and better. I think the museum is in transition where they are working towards this new building and it is always kind of hard. I think once that happens all kinds of possibilities will open up.

With the limitations the museum faces and the priorities that the educators had set for themselves, the 2nd field trips are well-positioned. The staff educators felt if they have the resources, they are capable of making their programs better by matching other curriculum standards. It is a matter of making it a priority.

I think our staff has the potential to do a lot, we just have to figure out what we can or cannot do, and what's a priority. And anything I think that we have to work on is communicating with PSD, assessing our needs for the future, not just deciding what we are going to do or want to do but assessing our needs and then coming up with a better evaluation. Because as we move forward, we might want to apply for some grants, that's something we ought to do.

Educator 2 called it a journey where the changes in the programs are inevitable and necessary.

We are getting there. I don't know when will we be there. It's like any other journey over a life time, but it is important. The journey is sometimes more important than the destination. Welcome the cliché festival.

Until all the logistics for the new facility are final, educators did not want to speculate on possibilities of new programs or changes that may apply to the existing 2nd grade field trips. Educators are optimistic that they can deliver field trip programs and supplement school curriculum with or without the cabins. They do hope to see more opportunities to strengthen school programs for 2nd grade field trips.

Docents who have been presenting the field trip programs for many years are used to the milieu and the current program format. Educators 5 and 7 thought the historic cabins and the programs of each one aptly fit the age of the children. They are concerned that the programs will change once the museum moves to the new facility or the administration may decide to part with the cabins. Educator 7 did not want to teach if the cabins are moved.

I am kind of out in the field, I don't know much. The only thing I can see that would carry on for what we are doing is to meet in the courtyard, not go downtown the other way to the new facility whenever it opens. I have mixed emotions.... Where they are putting the new building is out of way!

She wanted the museum administrators to leave the field trips and the cabins where they are as she thought they fulfill the needs of the 2nd graders quite appropriately. An uncertainty over field trip programs' future concerns docents especially those who have been presenting the field trips for a long time.

That has been worrying me a lot, but I didn't stop to think what the answer might be. But it has been nagging in the back of my mind ever since heard about the move. I guess, a little part of it is what is in the tiny building that will make it different from depending on what's in the building, the big building.

Summary: Educators' Interviews

Educators shared their perceptions and processes of 2nd grade field trips which pertained to the pre-, during-, and post-trip planning and delivery. They detailed their planning, preparation before the field trips, and delivery of the programs to achieve the teaching and students' learning outcomes. Educators also talked extensively about the factors limiting their ability to effectively and efficiently implement 2nd grade field trips realizing the museum's potential. Teachers' comments and students' thank you notes as assessments of field trips have been encouraging. Educators continue to hope to provide curriculum support and service to PSD utilizing the museum's collections and quality programming. The next section will detail the educator presentation practices as observed by the researcher in March 2008.

Observations of Educators' Presentations

As a triangulation component, the researcher observed and recorded teaching practices during field trip presentations for comparison with practices reported during the educators' interviews. A research-based checklist was used to record observations during several program presentations such as *Name the Street*, *Boxelder Schoolhouse*, *Antoine Janis's Cabin* and *Rendezvous*, *Auntie Stone's Cabin* and *Build the Fort*, *Franz-Smith Homestead*, and *Cabin Tour*. For 90-120 minute field trips, most teachers request three 20-25 minute individual presentations. One teacher requested a special Cabin Tour for the 2nd grade classes of her school. This cabin tour was a combined presentation of four cabins in 35-40 minutes with one staff educator.

Individual presentations by five educators (three staff educators and two docents) spanning three non-consecutive days were observed. In addition to program presentations, observations were made during introductions at the museum gates as school groups arrived.

Introduction

Staff educators and docents scheduled for presentations received each school group at the gates on the south end of the museum building. The introductions made by the staff educator (also the School Program Coordinator) were consistent on all three days when observations were made. However on Day 1, the school bus arrived 20 minutes earlier than scheduled. The museum was not yet open and no one from the education staff was present to receive the group. The teacher used the opportunity to start a dialogue about the museum building with her 2nd graders until the staff educator arrived.

The educator welcomed the students and their chaperones to the museum and started with introductions as he would any other field trip day. He introduced himself and the docents scheduled to do the presentations. The exchange between

the educator and children was informal. The educator asked questions about the building such as--What was the building constructed of? Where did the construction material (sandstone) come from? Instead of a discussion, he asked children to answer collectively. As children shouted answers to his questions, it helped build the energy and excitement for the field trip on a cold morning.

This informal question and answer session with children gave the educator an opportunity to talk about cabins made of wood and the Old Town buildings constructed of brick and sandstone from area quarries. From construction materials to development of brick making industry and new fire laws in northern Colorado, the discussion returned to the museum building. He asked children if they knew the original purpose and use of the building in the early 1900s. Children knew the answer was Carnegie Library and they shouted it in a chorus. The educator pointed and showed them a faded sign above the door that read *Public Library*. The educator laid out the field trip agenda and asked the school group to form two or three groups for rotations depending on the field trip schedule that day. Docents led their groups for the individual presentations.

Introductions by the staff educators were repeated in a similar fashion the other two days. On Day 1, a fellow educator took a moment to remind her group the museum manners that were expected of children, which included using indoor voices, being courteous to others, and staying together as a group. She further divided her group into two to use the elevator taking them to the gallery upstairs.

Individual Field Trip Presentations

Individual field trip presentations varied from 18-30 minutes. Presentations differed in terms of duration, format, teaching style, and breadth and depth of information covered. Differences in presentations were based on how much time each school group had and the programs the teacher had requested. As each presentation followed a different format, the presentation summaries are compiled

based on presence or absences of teaching practices commonly associated with informal museum environments. Summary of teaching practices at the FCM are presented in Table 4 with examples from each program presentation observed.

Table 4
Summary of Observations of Educators' Presentations

| Teaching Practice | Evidence Summary |
|-----------------------------------|---|
| Teaching style | <p>Educators followed their own style of teaching and delivering presentations.</p> <ul style="list-style-type: none"> - Educator 1 kept the program lively and at 2nd grade level by including jokes, poems, and funny clues for people's and streets' names for <i>Name the Street</i> presentation. - Educator 3 included detailed historical information about people and read her notes to present <i>Name the Street</i>. - At the <i>Franz-Smith Homestead</i>, Educator 3 asked children to save their questions, comments, and stories until the end of the presentation. - Educator 6 told children to ask questions during the <i>Antoine Janis's Cabin</i> presentation rather than waiting until the end. |
| Presentation introductions | <p>Each educator had his/her method to initiate presentations by either giving children background or asking questions</p> <ul style="list-style-type: none"> - Educator 7 showed an old picture of the <i>Boxelder Schoolhouse</i> to begin her presentation. - Educator 1 started her presentations quizzing about the signs (<i>M</i> for the museum, an arrow to mark north, blue painted river, etc.) drawn on the canvas map used for <i>Name the Street</i>. - For the same activity, Educator 3 started by asking children to share two things that they had learned about Fort Collins history in school. - Educator 3 started her <i>Franz-Smith</i> presentation by asking children to calculate number of years the cabin was built (1880) before the Boxelder Schoolhouse (1905). - Educators 2 and 6 instructed children not to stamp their feet in Antoine Janis Cabin which had a dirt floor. Inside the cabin, children were asked to take a good look before Educator 6 began. |
| Sharing history | <p>Each educator had his/her own way to get the historical information and objectives across. Based on how children responded to the openings, educators proceeded with general background of the topic.</p> <ul style="list-style-type: none"> - <i>Franz-Smith Homestead</i>: Educator 3 told about the Germans from Russia who moved and settled to farm. - <i>Name the Street</i>: Educator 1 talked about Camp Collins, Franklin Avery, and shared a poem how the Old Town streets running north-south and east-west got their names - <i>Auntie Stone's Cabin</i>: Educators started the presentation with discussion of Camp Collins and how the town got its start as a military fort in 1862. - <i>Antoine Janis's Cabin</i>: Educator 6 balanced sharing information about Native Americans who lived in the area before settlers came and Antoine Janis who befriended Native Americans by learning their language and marrying a Native woman. |

| Teaching Practice | Evidence Summary |
|---------------------------------------|--|
| Assessing knowledge | <ul style="list-style-type: none"> - Educator 2 talked about lives of people who lived in the cabin in 1850s and their lifestyles. He talked about the use of ox blood to harden the dirt floor and explained how the old-fashioned rope bed was used and tightened. He told them its connection with the expression "sleep tight; don't let the bed bugs bite." - <i>Boxelder Schoolhouse</i>: Educator 7 included extra information not directly related to the schoolhouse. She talked about raising the U.S. flag which had 35 stars at that time at Boxelder School. She shared that pledge of allegiance in 1905 did not include the words "under God." Those words were added in the pledge in 1950. She also taught a game--<i>Drop the Handkerchief</i>--that children thought was similar to <i>Duck Duck Goose</i>. <p>Educators usually started presentations by asking questions to assess what children already knew.</p> <ul style="list-style-type: none"> - Educator 1 started her presentations quizzing about the signs (<i>M</i> for the museum, an arrow to mark north, blue painted river, etc.) drawn on the canvas map used for <i>Name the Street</i>. - Educator 3 started her <i>Name the Street</i> presentation by asking children to share two things they learned about Fort Collins history in school. - Educator 3 started <i>Franz-Smith</i> presentation by asking children to calculate number of years it was built (1880) before the Boxelder Schoolhouse (1905). |
| Establishing personal contexts | <p>Establishing personal contexts is a method all educators used before they shared new information. Educators discussed and elaborated on information children knew from school. It engaged children and made them pay attention.</p> <ul style="list-style-type: none"> - During <i>Name the Street</i>, children who were familiar with the street names or lived on the streets being discussed got excited and wanted to share information with their peers and educators. - In <i>Boxelder Schoolhouse</i>, educators talked about similarities as well as differences children noticed from the building where they now attend school. - Presenting interesting facts suggesting and differentiating lifestyles of the past, supported by actual objects, artifacts, or pictures were practices common in all presentations. <ul style="list-style-type: none"> o A schoolhouse that had one-room with a classroom, a library, and music room and where a very young teacher with three months of teacher training taught children of different ages and grades were ideas novel to children. o Seeing an old style rope bed in <i>Antoine Janis's Cabin</i> got laughs from children when the educator told them its connection with the saying, "sleep tight, don't let the bed bugs bite." o They might have read about cavalry brigades, but it is something that is not seen in Fort Collins. |
| Language and information | <p>Educators made conscious efforts to keep presentations at the 2nd grade level in terms of language, activity, and information.</p> <ul style="list-style-type: none"> - During the <i>Build the Fort</i>, Educator 2 introduced new words such as cavalry and barracks, and their meanings in context to local history. - During the <i>Name the Street</i>, Educators 1 and 3 introduced new words such as parallel and diagonal and their meanings in context |

| Teaching Practice | Evidence Summary |
|--|---|
| | <p>to street layout in the Old Town.</p> <ul style="list-style-type: none"> - Educator 3 told children two new words--<i>carding</i> and <i>shearing</i>--in context of wool processing. - Educator 6 taught a French word--<i>Rendezvous</i>--and took time to explain its meaning with an activity. Other words that she introduced were—<i>chinking</i> (for the concrete holding the cabin logs together), <i>trapper</i>, and <i>trading</i>. - Throughout her presentation, Educator 7 included extra information not directly related to the schoolhouse. She talked about raising the U.S. flag which had 35 stars at that time at Boxelder School. - Educator 7 explained that the pledge of allegiance in 1905 did not include the words “under God.” Those words were added in 1950. |
| | <p>Educators’ attempts to keep presentation language at the children’s level were not always successful.</p> <ul style="list-style-type: none"> - Educator 1 used words like <i>amok</i> and <i>plaid</i>, but did not explain their meanings. |
| Hands-on experience and activities | <p>Engaging children using hands-on and experiential activities were common to all individual presentations. These activities required either collective or individual participation from children.</p> <ul style="list-style-type: none"> - Educator 1 sang poems with children and told jokes and riddles while doing <i>Name the Street</i>. - Educator 7 asked children to do calisthenics to simulate a physical education class in 1905. She checked their nails and hair for cleanliness as the teacher at Boxelder School would have done. Children wrote their names and did arithmetic problems to experience writing on slates. - Educator 2 involved children by asking them to place wood blocks marking various camp dwellings while building a map of Camp Collins. - Educator 6 taught hand signing that Anglo and Native American traders might have used to communicate at Antoine Janis’s <i>Rendezvous</i>, a gathering of people for trading. - Educator 6 asked children to touch and feel a beaver pelt and showed a trap and a beaver hat along with teaching a hand sign to portray a beaver. - Educator 3 had children throw bean bags to simulate sugar beet loading on carts. They used carders to experience handling of wool. |
| Balancing talking, activity, and interactions | <p>Balance among talking, doing an activity, and discussing information was important for the educators to keep children attentive and engaged. Hands-on activities were important in each presentation which led to interactive discussions while connecting with talks from the educators.</p> <ul style="list-style-type: none"> - Educator 1 kept the program lively and at 2nd grade level by including jokes, poems, and funny clues for people’s and streets’ names. - Educator 3 talked, asked questions, and kept children engaged while naming streets of the Old Town. - Educator 2 constantly involved children by asking them to repeat names of people or words while they all gathered around and build the map of Camp Collins in Auntie Stone’s Cabin. - Educator 3 gave background of Franz-Smith and farming in Fort |

| Teaching Practice | Evidence Summary |
|--------------------------------------|---|
| Presentation conclusions | <p>Collins in late 1800s before making children use the <i>matata</i> (to grind corn) and carder (to card wool).</p> <ul style="list-style-type: none"> - Educator 6 balanced her presentation in Antoine Janis' cabin by making children look around, touch artifacts, and simulate hand signs for trading. - Educator 7 asked children to follow a school day routine in Boxelder Schoolhouse. She mostly talked with few hands-on activities. There was not much interaction. <p>Before concluding, most educators asked children to repeat what they had learned during the presentations.</p> <ul style="list-style-type: none"> - Educators 1 had children repeat street names. - Educator 3 removed the street names and asked children to place them again. - Educator 6 asked children to repeat the hand-signs they had learned to communicate words--beaver, blanket, hat, yes, and no--during the activity. She also asked them to touch the walls and feel the marks Antoine Janis's axe had made as he had built his cabin. <p>To end presentations, some educators shared with children a bigger idea or thought.</p> <ul style="list-style-type: none"> - As Educator 3 asked children to pay attention to street names the next time they visit the Old Town. Before parting, she asked children to think why the streets were named only after men when women had lived here too. Educator 3 commented that 100 years ago women did not have the same rights as men and their work was not recognized. So, there were not many streets named after women. - Before letting the children go, Educator 7 commented that science has made tremendous progress in the last 100 years and gave examples of men reaching the moon and using computers to send emails. She added that life today is quite different from what it was 100 years ago--most children do not work on the farms or do chores such as milk cows, collect eggs, feed horses, etc. She asked children to think of changes the next 100 years would bring. - Educator 2 summed up his Auntie Stone Cabin presentation by commending the great life that Elizabeth Stone had led--her entrepreneurship, participation in the suffrage movement for voting rights, and spirit for life and compassion. Showing the rubbing from her gravestone, the educator called her the "founding mother" of Fort Collins. He added that Auntie Stone was loved and respected by people of town because she cared for and helped everyone. The educator concluded his presentation, "there are many ways people die, but there are excellent ways to live" and so, the children were to take inspiration from Auntie Stone's life to always help those in need. |
| Handling children's curiosity | <p>It piqued children's curiosity to see behind a locked door in <i>Auntie Stone's Cabin</i> which has a narrow staircase to go up or about the secret closet in <i>Franz-Smith Homestead</i>, or they wanted to continue talking and telling their own stories.</p> <ul style="list-style-type: none"> - Educators tactfully explained that children could see those areas with friends and family on their next visit to the museum. - Educators asked children to give their questions to teachers who can forward those to the museum educators for further research |

| Teaching Practice | Evidence Summary |
|---|--|
| Keeping order during presentations | <p>and the answers.</p> <p>With help from teachers, educators managed to keep order during presentations.</p> <ul style="list-style-type: none"> - Teachers nudged children to participate in discussions. They sometimes interjected information that they had already covered in school. Teachers' eye contact or putting a finger on lips were enough to warn an unruly child. There were no behavioral issues observed. <p>On Day 3, a teacher accompanying the group was trying to take pictures. She insisted children pose as the educator continued his presentation at the Boxelder Schoolhouse.</p> <ul style="list-style-type: none"> - The teacher interrupted the presentation and distracted children. The educator did not object to the disruptions and continued with a much animated presentation. |

Cabin Tour

Cabin Tour was offered as a response to a request from one teacher. It was a special shorter version of four programs combined in one presentation by Educator 2. In many ways, Cabin Tour was a "walk-and-talk" tour, which was fast-paced without much engaging discussion or activities for children.

Prior to the field trip, the School Coordinator had tried to persuade the teacher to choose three individual programs instead of a Cabin Tour. The teacher insisted on touring all the historic cabins and doing *Name the Street* activity and that is what educators delivered. Educator 2 gave a combined tour of Antoine Janis's Cabin, Auntie Stone's Cabin, Boxelder Schoolhouse, and Farming in Fort Collins in 35-40 minutes. The educator divided the school group into two rotations. When the first group did the Cabin Tour with Educator 2, the other group did *Name the Street* with another staff educator and explored the gallery doing a scavenger hunt with teachers and chaperones. The factual information on each cabin was condensed to 8-10 minutes without any activities. The shortened versions of individual presentations included:

- assessing background with fewer probing questions,
- presenting factual information on cabins,
- showing objects (no activity or discussion), and
- summing up/conclusions

The educator was excited to share history of Fort Collins area. With his experience and knowledge of the cabins, he seemed completely at ease doing short presentations at each cabin for a group of 20-22 children. The educator instructed children to answer his questions collectively as there was no time for discussions. He talked about the dirt floor in the cabin, ox blood that was used to harden the floor, and the rope bed. He did tell the saying, "Good night, sleep tight, don't let the bed bugs bite" and its connection with the rope bed. He added general facts about Antoine Janis's family but did not include the *Rendezvous* (activity) and information on trading with Native Americans. Despite a monologue, an excited and animated educator kept children attentive and engaged for most of the presentation.

During *Farming in Fort Collins*, children were told of the Spanish word for the grinding stone--*matata*--and they touched and looked at the stone. There was no time to do the main activity--throwing the bean bags. Similarly, at Auntie Stone's Cabin, the educator showed children around the cabin and told them how the cabin was rebuilt and moved to the museum park. The focus of the "talk" was Auntie Stone and her life at the cabin. He did not talk about Camp Collins or soldiers' lives at the military camp.

At the *Boxelder Schoolhouse*, the educator shared information on one-room schools stressing the use of slates to write, desks with holes to hold ink, and the big wood burning stove. He also shared information on the dunce stool and the conical hat that unruly children had to wear as punishment. Despite the lack of activity, children found the information quite amusing. He did not talk about the young teacher (marm) or her duties in detail as covered in individual presentations.

Although, it was a longer presentation with one educator, children still enjoyed it because of the active teaching style of Educator 2. As limited by time, he did not include any activities and discussions with children and shared only relevant and interesting details. He quickly moved from cabin-to-cabin and used the time between cabins to answer questions or to introduce the next cabin they were going to see. Educator 2 kept time to answer children's questions at the end of the Cabin Tour. It was a choice of the teacher to have a combined tour for her students, so the educator committed to providing service, delivered a tour that was filled with energy and excitement for children.

Summary: Observations of Educators' Presentations

As a triangulation component, the purpose of presentation observations was to validate educators' teaching practices reported during interviews and to check if there are discrepancies in actual practices. As reported by educators in interviews, they had to improvise each presentation according to teachers' and students' needs and time at hand. Educators' training and experiences played an important role in having consistent presentations in terms of content information and activities (Tran, 2004). Basic information presented during individual and Cabin Tour was similar except the Cabin Tour did not include activities with each presentation. Educators took liberty to deliver prescribed content and activities suiting their own teaching styles for both types of presentations.

Familiarity and depth of historical knowledge added to the comfort level of educators. They were at ease handling questions from children and leading discussions. Educators could cover historical information in a much more cohesive and relaxed manner during individual presentations as that is what they were trained to do. The Cabin Tour was hurried with students moving cabin to cabin with one educator. However, the educator appeared comfortable sharing the interesting and

pertinent information about the cabins without going into details or doing the activities.

Keeping presentations on time was a priority because a delay at one presentation could have thrown the whole group off schedule. Educators could have continued discussions or answered more questions, but keeping school groups on schedule took precedence over giving more time to interactions.

Educators' attempts to share too much historical information and to connect with classroom teaching sometimes made children distracted and disengaged. Keeping children engaged during activities, such as the school routine of 1905 where they could participate collectively, seemed easier than having their attention when only one student had the street sign (for *Name the Street*) or a single block (*Build the Fort*). Educators fulfilled the commitments of a hands-on and fun-filled field trip through their presentations and practices.

To understand the perceptions and processes on museum field trips (RQ: 2), a questionnaire was administered to all PSD school 2nd grade teachers (Appendix D-3 and 4). The next section details the teachers' experiences of the integration of field trip in their 2nd grade classes.

Teachers' Questionnaire

Teachers' questionnaires were personally delivered to 31 PSD and two charter schools' front offices. The office managers were requested to place the survey packets in teachers' mailboxes. Of 90 questionnaires delivered, 72 (80%) were completed and returned. Among teachers who filled out the questionnaire, 66 were users of the FCM's field trip programs and six were non users. The users responded to a 31 question and statement (multiple choice and open-ended) questionnaire and non users completed a four open-ended question survey. Of the 66 user teachers, 28 (43.1%) have brought students for FCM field trips six or more times. The mode suggested that most teachers organized three field trips per year for their students.

General Information

Teachers had a wide range of teaching experience in PSD and in 2nd grade classrooms. Table 5 shows experience of teaching in PSD schools, teaching 2nd grade classes, and number of field trips taken in a school year. Among respondents, there were four (5.7%) first year teachers and 14 (19.6%) teachers with 20 or more years of experience teaching in PSD. The mode for PSD teaching experience was eight years and the mean was 12.17 years. Half of the teachers had five or less years' experience teaching 2nd grade. The modes were two and four years, each selected by eight (11.4%) teachers. Most teachers implemented two (40.0%) or three (44.3%) field trips in a year.

Table 5
Teachers' Years in PSD, Years Teaching 2nd Grade, Use of and Number of Field Trips in a Year

| Teachers | Number (N = 72) | Mean | Mode | Range |
|--------------------------------------|--------------------|-------|----------|-------|
| Years in PSD | -- | 12.17 | 8 | 1-30 |
| Years teaching 2 nd grade | -- | 7.23 | Multiple | 1-20 |
| Use field Trips | 66 | -- | -- | -- |
| Field trips in a year | -- | 2.80 | 3 | 1-6 |

When asked about the recollections of a field trip from their childhood, 34 (42.7%) teachers were able to remember at least one thing and 22 (30.6%) remembered three things of a field trip taken in grade school. To express a local history museum field trip for self or for students in one word (free choice), teachers' responses included 40 different words. The word choices identified by two or more teachers ($n \geq 2$) are listed in Table 6. The words *interesting* and *history* were chosen by 12 (16.7%) and 5 (6.9%) teachers, respectively. Teachers expressed expectations from the FCM field trip with 41 different words. Words chosen by two or more teachers ($n \geq 2$) are listed in Table 6. The words *learning* (8; 11.1%) and

interactive (7; 9.7%) were chosen most often by teachers to express expectations from FCM field trips.

Table 6
Teachers' Words to Describe Local History Museum and FCM Field Trips

| Words to Describe Local History Museum Field Trip | Teachers (N = 72) | Percent | Words to Describe Fort Collins Museum Field Trip | Teachers (N = 72) | Percent |
|--|--------------------------|----------------|---|--------------------------|----------------|
| Interesting | 12 | 16.7 | Learning | 8 | 11.1 |
| History | 6 | 8.3 | Interactive | 8 | 11.1 |
| Fun | 4 | 5.6 | Educational | 5 | 6.9 |
| Educational | 4 | 5.6 | Enrichment | 3 | 4.2 |
| Connections | 3 | 4.2 | Excitement | 3 | 4.2 |
| Learning | 3 | 4.2 | Experiential | 3 | 4.2 |
| Artifacts | 2 | 2.8 | Hands-on | 3 | 4.2 |
| Engaging | 2 | 2.8 | Connections | 2 | 2.8 |
| Hands-on | 2 | 2.8 | Experience | 2 | 2.8 |
| Local | 2 | 2.8 | History | 2 | 2.8 |
| Old | 2 | 2.8 | Informative | 2 | 2.8 |
| Past | 2 | 2.8 | Interesting | 2 | 2.8 |

Purpose of Field Trips

All teachers selected *connection to curriculum* as the primary reason to organize field trips for 2nd graders. Another common reason selected was *experience of a historic place* (95.5%). Field trips for *enjoyment* and *to have motivational experience* were selected by 75.4 and 60.0% of the teachers, respectively. Table 7 lists the reasons teachers take their students on FCM field trips. Among other reasons teachers wrote that they wanted the children to have hands-on experiences to connect with classroom activities and information. One teacher integrated the field trips to develop "historical empathy" on how settlers lived in the area. For many teachers, field trip experiences were to make history "real" to children, which cannot be provided either at school or at home. One teacher brought her students to make them aware of the community learning opportunities. Learning history or about historical figures and connecting to the past were other reasons for teachers to take children on museum field trips.

Table 7
Teachers' Reasons for Field Trips

| Reason | Selected by Teachers | |
|--------------------------------|----------------------|---------|
| | Number (N = 65) | Percent |
| Connection to curriculum | 65 | 100.0 |
| Experience of a historic place | 62 | 95.5 |
| Enjoyment | 49 | 75.4 |
| Motivational experience | 39 | 60.0 |
| Lifelong learning gains | 38 | 58.5 |
| Exposure to a novel place | 32 | 49.2 |
| Change from routine school day | 22 | 33.8 |
| Other | 14 | 18.5 |

Other Reasons

Curricular

- Connection to local historical figures, sense of "place and time" with where
- Connection to past and present
- Emergence into history in classrooms
- Looking for answers to student questions
- Frames other lessons
- Real life vocabulary exposure for 1st and 2nd language learners
- Historical perspective, connection to items they have read about

Experiential

- Awareness of community opportunities available to them
- Cool historical buildings
- Exposure to experience; many of my students would not get with their family
- Exposure to location/activity. They can take their family to visit.
- Historical empathy how settlers lived
- Live-connection to past
- On hands [sic] learning

While *connection to curriculum* was the foremost reason for teachers to take 2nd graders on field trips, they expected broader learning outcomes for their students. A *positive experience* for children on field trip was the choice of 63 (96.9%) teachers, followed by *learning with fun* chosen by 61 (93.8%) teachers. *Conceptual knowledge* gain was selected by 60 (92.3%) teachers. Many teachers selected *enjoyment* (56; 86.2%) and *building memories* (52; 80%) as expected outcomes. Among other outcomes, teachers expected that hands-on and experiential field trips help children make connections and extend classroom learning. Table 8 lists teachers' expected outcomes from field trips.

To aid teachers planning museum field trips, museum educators were available via e-mail or phone. Educators helped teachers plan their field trips by

sharing program and activity options so they can select those that best fit students' needs. A teacher wrote, "they [educators] helped with dates, tour guides to make the most out of our field trip." Teachers could find field trip information on programs, activities, trunk choices, and standards each program meets in the brochure available on FCM's website. From teachers' responses on planning it appeared that not all teachers received information packets before their field trips. Teachers mentioned that it would help to plan if they receive the information packets ahead of their field trips. Teachers did not mention if they accessed the museum's website for the information.

Table 8
Teachers' Expectations Identified as Outcomes from Field Trips

| Expected Outcome | Selected by Teachers | |
|---------------------------|-----------------------------|----------------|
| | Number (N = 65) | Percent |
| Positive experience | 63 | 96.9 |
| Learning and fun combined | 61 | 93.8 |
| Conceptual knowledge gain | 60 | 92.3 |
| Enjoyment | 56 | 86.2 |
| Building memories | 52 | 80.0 |
| Long lasting experience | 48 | 73.8 |
| Motivational experience | 41 | 63.1 |
| Other | 2 | 3.1 |
| No particular outcome | 0 | 0.0 |

Teachers relied on the educators' plan for "active and interactive learning experiences" for their students. One teacher shared her bulleted list of the helps she received from educators that included-- "they offer "check out" (trunks) materials; docents to assist on the day of the visit; and they are also willing to work around our schedules." From teachers' responses it appeared that educators mostly helped them plan field trips by sharing information on various programs, presentations, and activities and being flexible in scheduling field trips. Two teachers mentioned receiving pre- and post-field trip activities, however, most teachers were not aware

of the information packets or activities included in those packets. Teachers found program discussions with educators via phone or email helpful.

Teachers communicated with educators the purpose, curriculum needs, and learning objectives field trips would meet. Two primary purposes were identified among 65 teacher responses. Majority of teachers (58.5%) mentioned that their primary purpose of FCM field trip was to supplement and enrich the local history curriculum taught in classrooms (see Table 9). The remaining two-fifths of teachers selected experiences of history (20%), curriculum (18.5%), or objects, artifacts, and buildings (3.1%) as their main purposes of the field trip. Finding connections with curriculum learning through enriching information, experience, and hands-on and engaging activities appeared to be a common underlying purpose of all teachers. Field trips were to provide experiences of history to make concepts and people real to children. Besides getting the basics of 2nd grade curriculum and learning about Fort Collins history, pioneers, Native Americans, a few teachers mentioned broader learning goals. These teachers (n = 2) wanted children to have a “deeper understanding of Fort Collins history” and to get them “excited about learning”. Another wanted field trips to connect with what they are doing in school and wanted her students to understand the “connection of past to present.”

Table 9
Teachers’ Purposes Communicated to Museum Personnel

| Purpose | Selected by Teachers | |
|----------------------------------|----------------------|---------------------|
| | Number (N = 65) | Response Percent |
| Supplement/enrich curriculum | 38 | 58.5 |
| Experiential curriculum learning | 13 | 20.0 |
| Experience history | 12 | 18.5 |
| Experiential learning | 2 | 3.1 |

Of factors that influence teachers’ decisions to plan field trips, *connection to curriculum* was selected by all teachers. Two-thirds of teachers (n = 44) identified that *familiarity with museum programs* influenced their decision to plan field trips.

Among other important factors chosen by majority of teachers were--*need to meet standards* (60.6%), *timing of the trip* (60.6%), and *parents' help as chaperones* (51.5%). Less than half of the teachers indicated *children's safety* on these museum trips. Factors influencing teachers' planning of field trips to a lesser extent were--*parental permission* (27.0%), *personal training to capitalize on field trips* (26.0%), *parental support* (23.0%), and *administrative concern* (7.6%) (see Table 10). Two teachers added *location of museum* and *opportunity to historical interaction* to the list of factors influencing teachers' decision of plan field trips.

Table 10
Factors Influencing Teachers' Planning of Field Trips

| Factors | Selected by Teachers | |
|---|-----------------------------|----------------|
| | Number (N = 66) | Percent |
| Connection to curriculum | 66 | 100.0 |
| Familiarity with museum program | 44 | 66.7 |
| Need to meet standards | 40 | 60.6 |
| Timing of the trip | 40 | 60.6 |
| Parents' help as chaperones | 34 | 51.5 |
| Children's safety | 32 | 48.5 |
| Parental permission | 27 | 40.9 |
| Personal training to capitalize on field trip | 26 | 39.4 |
| Parental support | 23 | 34.8 |
| Administrative concern | 5 | 7.6 |
| Other | 3 | 4.5 |

Preparation for Field trips

Many teachers wrote that teaching local history unit "culminates" in a field trip to the museum. A field trip combined with classroom teaching completes the unit teaching. Teachers use PSD approved text and other relevant materials to teach the unit on local history. Teachers exercise a variety of methods to teach and prepare their 2nd graders for field trips, which are listed in Tables 11. As evident from these tables, most teachers use classroom teaching and activities to prepare their students for the field trips. Class discussions to share information and reinforce concepts learned are used by most teachers (98.5%). These discussions are further

reinforced by writing and/or drawing assignments, an option selected by 90.9% of teachers. Majority of the teachers (81.8%) show *Fort Collins Before*, a DVD created and distributed by PSD in collaboration with FCM educators to reinforce local history curriculum.

Table 11
Pre-Visit Trip Classroom Activities for Field Trip Preparation

| Classroom Activity | Selected by Teachers | |
|-------------------------------|-----------------------------|----------------|
| | Number (N = 66) | Percent |
| Class discussion | 65 | 98.5 |
| Class work (written or drawn) | 60 | 90.9 |
| Slideshow/film | 54 | 81.8 |
| Other | 14 | 21.2 |
| No pre-visit activity | 2 | 3.0 |

Other Pre-Visit Activities

Classroom teaching

- A month long unit on westward expansion followed by a month dedicated to civil war studies
- Book: Our Fort Collins History book
- Fort Collins history; community unit
- Fort Collins unit
- PSD curriculum, Fort Collins History
- Fort Collins history with focus on Auntie Stone, Chief Friday, A. Janis, and Franklin Avery

Additional activities

- Boxelder crates (trunks from the FCM)
- Etiquette for visit
- Film: DVD *Fort Collins Before*
- Multi-media sources, books, internet, websites from Fort Collins library, speakers
- Timeline done by children

Half of the teachers (48.5%) wrote that FCM personnel did not contribute to pre-field trip classroom activities (see Table 12). Six of 66 teachers had used or were aware of museum’s pre-visit activities to prepare children for field trips. These teachers thought that educators are great resources for providing information, activity ideas, and materials. Two teachers mentioned that they had used museum’ pre-activities in the past but have not used those recently. Two teachers wrote that they received suggestions for pre-visit activities from educators. Eight teachers used the packets sent from the museum to share information on programs and activities and considered it a museum contribution. Eight teachers wrote that they checked

out the trunks and used those for pre- or post-visit activities. They also used (3%) the information available on programs on museum’s website as a resource to prepare students. Four teachers mentioned using PSD references materials and the DVD, *Fort Collins Before* to supplement classroom teaching and prepare students for the field trip.

Table 12
FCM Personnel Contribution to Pre-Visit Classroom Activities

| FCM Contribution | Selected by Teachers | |
|---------------------------------|-----------------------------|----------------|
| | Number (N = 66) | Percent |
| No contribution | 32 | 48.5 |
| Field trip information | 8 | 12.1 |
| Trunks | 8 | 12.1 |
| Materials available | 6 | 9.1 |
| PSD materials | 4 | 6.1 |
| Past field trip experience | 2 | 3.0 |
| Materials available in the past | 2 | 3.0 |
| Educator suggestion | 2 | 3.0 |
| Museum website | 2 | 3.0 |

Teachers felt that they and fellow 2nd grade teachers shared the responsibility for most aspects of field trip preparation (see Table 13). Teachers found help from school administrators to get permission from the district or to arrange transportation. Field trip agenda, time, and date of the visit were usually decided after checking with museum personnel. Museum personnel were responsible deciding the agenda, but for most other decisions of field trip planning and preparation teachers bear the responsibility.

The Field Trip

Field trips are planned for programs spanning 90-120 minutes to cover three presentations and self-exploration in the museum gallery. Most teachers and their 2nd grade students (72.3%) had spent two hours at the museum visiting the cabins and indoor gallery. Twelve school groups (18.5%) spent an hour for the field trip and four groups spent three hours or more (6.2%) (see Table 14).

Table 13
 Teachers' Perceptions of Primary Responsibility for FCM Field Trip Components

| Components | Me & Other teachers (1) | School Administration (2) | FCM Personnel (3) | (1 & 2) | (1 & 3) | (1, 2, & 3) |
|--------------------------|--|--------------------------------------|------------------------------|--------------------|--------------------|------------------------|
| Decision to visit FCM | 63 | 0 | 1 | 2 | 0 | 0 |
| Post-trip class activity | 62 | 0 | 1 | 0 | 1 | 0 |
| Parent permission | 57 | 4 | 0 | 0 | 0 | 0 |
| Pre-trip class activity | 56 | 0 | 0 | 0 | 4 | 0 |
| Field trip assessment | 56 | 0 | 3 | 0 | 1 | 0 |
| Curriculum fit | 50 | 3 | 6 | 2 | 2 | 0 |
| Transportation decisions | 49 | 10 | 0 | 5 | 0 | 0 |
| Date and time for visit | 44 | 0 | 8 | 1 | 11 | 2 |
| School permission | 36 | 0 | 0 | 3 | 0 | 0 |
| Field trip agenda | 35 | 0 | 21 | 0 | 8 | 0 |

Table 14
 Time Spent at the Museum (Hours)

| Time Spent at the Museum (hours) | Selected by Teachers | |
|---|-----------------------------|----------------|
| | Number (N = 65) | Percent |
| 1.0 | 12 | 18.5 |
| 1.5 | 1 | 1.5 |
| 2.0 | 47 | 72.3 |
| 2.5 | 1 | 1.5 |
| 3.0 | 2 | 3.1 |
| 4.0 | 2 | 3.1 |

During their time at the museum, teachers need to ensure safety of their young students. Most teachers thought that they and other adults (teachers [84.8%] and parent chaperones [92.4%]) were responsible for children at the museum (see Table 15). Twenty two (44%) teachers thought they share the responsibility with FCM personnel. Nine teachers (13.6%) held educators responsible for children. Teachers prepare children before bringing them on field trips. The expectation that children will behave responsibly was evident from teachers' responses. Thirty-six (54.5%) teachers thought children, accompanied by adults, would behave responsibly.

Table 15
 Teachers' Perceptions of Children's Responsibility on Field Trips

| In charge of Children | Selected by Teachers | |
|------------------------------|-----------------------------|----------------|
| | Number (N = 66) | Percent |
| Teacher and parent chaperone | 61 | 92.4 |
| Teacher and fellow teacher | 56 | 84.8 |
| Teacher is responsible | 42 | 63.6 |
| Children themselves | 36 | 54.5 |
| Teacher and FCM personnel | 22 | 33.3 |
| FCM personnel | 9 | 13.6 |

On field trips, teachers encouraged students to interact with FCM personnel (95.4%) to ask questions and to learn new information (see Table 16). These field trips were arranged to receive hands-on experience of history children learn in school, therefore teachers encouraged them to interact with museum objects (84.6%). Majority of them expected interactions among students/peers (81.5%) as well as with teachers (73.6%) and chaperones (70.8%). Two teachers responded by selecting "interactions discouraged."

Table 16
 Student Interactions Encouraged on Field Trips

| Interactions with... | Selected by Teachers | |
|-----------------------------|-----------------------------|----------------|
| | Number (N = 65) | Percent |
| FCM Personnel | 62 | 95.4 |
| Museum objects | 55 | 84.6 |
| Peers | 53 | 81.5 |
| Teachers | 48 | 73.8 |
| Chaperones | 46 | 70.8 |
| Interactions discouraged | 2 | 3.1 |

To help 2nd grade students' curiosity, most teachers encouraged students to discuss objects and information with FCM educators (89.2%) (see Table 17). If children had questions regarding information covered in school or during field trip presentations, teachers wanted them to discuss those with educators. Children could discuss information with teachers (80.0%) or with peers (78.5%). Generally, children did not bring worksheets to the museum. The scavenger hunt activity provided by the FCM educators is an add-on gallery exploration children can do if

they had time at the end of their field trip. One-fifth of the teachers responded that their students fill out FCM worksheets (scavenger hunt sheet). Four teachers (6.2%) mentioned filling out school worksheets. Among other activities teachers encouraged their students to do during the field trip were: listening and paying attention to information educators shared, participating in hands-on presentation activities, and visiting cabins.

Table 17
Students' Activities on Field Trips as Identified by Teachers

| Students' Activities | Selected by Teachers | |
|----------------------------------|-----------------------------|----------------|
| | Number (N = 65) | Percent |
| Have questions for FCM Personnel | 58 | 89.2 |
| Discuss with teachers | 52 | 80.0 |
| Discuss with peers | 51 | 78.5 |
| Fill out FCM worksheets | 13 | 18.5 |
| Fill out school worksheets | 4 | 6.2 |

When asked to identify one exhibit that is of most interest to children, *Boxelder Schoolhouse* was chosen by 42 teachers (64.6%) (see Table 18). *Auntie Stone's* and *Antoine Janis's* cabins were chosen by 21 (32.3%) and 18 (27.7%) teachers, respectively. Only one teacher wrote that his/her 2nd graders were interested in *Franz-Smith Homestead*. Gallery exhibits--the Folsom Man and Rock this Town--were selected by four (6.2%) teachers. In addition to these choices, one-fourth (n = 17) of the teachers thought that their students were interested in the *entire museum and courtyard*.

In identifying an activity, the *Boxelder Schoolhouse* where students get to experience a *School Day in 1905*, was selected by thirty-six (55.4%) teachers as the favorite of their students (see Table 18). At Auntie Stone's Cabin children learned about Camp Collins by building a map of the military fort with wood blocks. Twelve (18.5%) teachers chose building the fort as their students' favorite. Although Franz-Smith Homestead was not the cabin that piqued children's interest, eight (12.3%) teachers thought the activities (grinding corn, carding wool, and throwing bean bags)

associated with this exhibit were enjoyed by their students. *Rendezvous* and *Name the Street* were each named as students' favorite by five teachers (7.7%). Teacher's additional comments (see Table 18) suggested that their curriculum focuses on the courtyard cabins and they do not visit the gallery in the museum. Time limitations restricted school groups to participate in no more than two or three activities. A teacher admitted that his/her students did not participate in any activities on their trip.

Table 18
Exhibit and Activity: Children's Interests

| Exhibit | Selected by Teachers | | Activity | Selected by Teachers | |
|--------------------------------|-----------------------------|----------------|-------------------------|-----------------------------|----------------|
| | Number (N = 65) | Percent | | Number (N = 65) | Percent |
| Boxelder Schoolhouse | 42 | 64.6 | School day in 1905 | 36 | 55.4 |
| Auntie Stone's Cabin | 21 | 32.3 | Build the Fort | 12 | 18.5 |
| Antoine Janis Cabin | 18 | 27.7 | Rendezvous | 8 | 12.3 |
| Entire Museum & Courtyard | 17 | 26.2 | Farming in Fort Collins | 5 | 7.7 |
| Folsom Man | 4 | 6.2 | Name the Street | 5 | 7.7 |
| <i>Rock this Town</i> -Exhibit | 4 | 6.2 | | | |
| Franz-Smith Homestead | 1 | 1.5 | | | |

Additional Comments

- All the cabins
- Beaver traps & hat
- Courtyard area w/cabins is our main focus.
- Didn't participate in any activities
- Enjoyed all (1-4) depends on the docent
- Grinding corn
- Have not done these. (Checked only *School Day in 1905*)
- Sugar beets history, puzzle floor map
- They loved all the cabins
- They really enjoyed Schoolhouse the most
- We did not care for the Name the Street activity in the past
- We didn't have time to go inside [the museum]

Teachers gave multiple reasons for 2nd graders' interest in field trip exhibits and activities. Classroom teaching on local history and its connection with the field trips were the main reasons for children's interest in the exhibits and activities.

Hands-on and experiential aspects of museum programs interest children.

Interactions with "authentic" artifacts and objects, which teachers and children had already dealt with in school, make the historical information real. Familiarity with schools and its functioning was the reason children liked the *Boxelder Schoolhouse*.

However, it is the contrast that the one-room school presents that gets children’s attention. There were teachers who thought that fun-filled and age-appropriate activities in a novel learning environment are the reasons for children’s interests.

Assessment of Field Trips

Teachers were asked to choose the aspects that denote the success of their most recent field trips. Almost all the teachers thought that *enjoyment* (fun) *combined with curriculum* learning define a successful field trip (see Table 19). A *positive experience* at the museum was another factor selected by a majority of the teachers as an indicator of a successful field trip. Primary reasons for organizing the field trips--*learning local history* (90.9%) and *conceptual knowledge gain* (89.4%)--were teachers’ fourth and fifth choices designating a successful field trip. Having *enjoyment* or fun on field trips was important to fifty-four (81.8%) teachers. *Appreciation for historic sites, enhanced curiosity for information, coordination with FCM personnel, and enhanced motivation for learning* were selected by the majority of teachers as factors contributing to a successful field trip. Teachers thought children wanting to stay longer or visit again with parents or siblings validates a successful field trip.

Table 19
Aspects Suggesting Successful Field Trips as Identified by Teachers

| Aspects | Selected by Teachers | |
|------------------------------------|-----------------------------|----------------|
| | Number (N = 66) | Percent |
| Learning with enjoyment | 63 | 95.5 |
| A positive experience | 61 | 92.4 |
| Learning local history | 60 | 90.9 |
| Conceptual knowledge gain | 59 | 89.4 |
| Enjoyment | 54 | 81.8 |
| Appreciation for historic sites | 53 | 80.3 |
| Enhanced curiosity for information | 51 | 77.3 |
| Coordination with FCM personnel | 38 | 57.6 |
| Enhanced motivation in learning | 37 | 56.1 |
| Other | 3 | 8.3 |

All teachers except one selected class discussion as one of the methods of assessing learning from field trips (98.5%) (see Table 20). Drawing (84.8%) and

writing (53.0%) activities to assess learning were used by a majority of teachers. A smaller percentage of teachers mentioned using group activities (6.1%) or FCM developed activities (6.1%) to gauge what children learned. Asking students to do class presentations was a method three teachers used. One teacher mentioned that each student in his/her class gave a PowerPoint presentation after the field trip. Field trips are part of the local history unit and students continue connecting it with curriculum-related activities in schools.

Table 20
Methods to Assess Children’s Learning

| Methods | Selected by Teachers | |
|--------------------------------|-----------------------------|----------------|
| | Number (N = 66) | Percent |
| Class discussion | 65 | 98.5 |
| Writing activity | 56 | 84.8 |
| Drawing activity | 35 | 53.0 |
| Group activity (skit, project) | 4 | 6.1 |
| FCM developed activity | 4 | 6.1 |
| Other comments | 7 | 10.6 |

When asked to elaborate their perceptions on specific aspects of FCM field trips that contribute to student learning, many teachers credited the docents and the knowledge they share through interactive programs with students.

Inside the museum, students gravitated to the hands-on exhibits, outside the “museum” the docent made the historic buildings come alive.

Teachers’ open-ended responses suggested that the informal manner in which the field trip programs are taught and experiences of historic buildings through hands-on and interactive activities contribute to student learning. A teacher responded, it is the “hearing/seeing/feeling allows the students to gain knowledge.” Another wrote:

Children are hands-on learners. Any time you give them something to touch and hold and to make connections...it works!

Teachers thought that student learning starts in school with curriculum instruction and pre-field trip activities. Instructions and activities that students do in the classroom connect well with field trip and, thus, learning takes place. With some

background on local history from school, children visit the museum and gain experiences with artifacts and exhibits. A teacher shared the views.

the more prepared they are with pre-info, the more connections they make and the more long term knowledge they gain.

Teachers (n = 2) credited students' interests to age-appropriateness of museum programming. Field trip presentations are "mini lessons" with relevant historical information and "fun activities that are short and to the point." A teacher thought that it is the informal methods which help children learn. A teacher credited the exploration aspects of the field trip for student learning. Some teachers thought that it is the "novelty" or "intricacy" of the historic place that helps children learn.

Challenges

Teachers were asked to check all of the major challenges from the list of 10 or to share any other challenge that they may have faced in planning a museum field trip. Funding (46.2%) and time allocation (46.2%) were the challenges selected by most teachers (see Table 21). They needed funding to have buses and time to combine a tour of the Old Town with museum field trip. Arranging transportation (buses) as an additional challenge, tied to funding, time, and scheduling, was selected by a quarter of the teachers. Eleven (16.9%) teachers identified parents agreeing to chaperone as their challenge. Teachers need parents to accompany children on field trip to ensure safety. Teachers identified this as a situation that changed every year and restricted teachers to plan too far ahead. Three teachers mentioned having parents sign consent slips had been a challenge. Only two teachers felt challenged assessing students' learning from field trips. One-eighth of the teachers commented that they did not face any challenges planning field trips (see Table 21).

Table 21
 Teachers' Challenges for Field Trips

| Challenge | Selected by Teachers | |
|--------------------------|-----------------------------|----------------|
| | Number (N = 66) | Percent |
| Funding | 30 | 46.2 |
| Time allocation | 30 | 46.2 |
| Transportation | 16 | 24.6 |
| Lack of parent volunteer | 11 | 16.9 |
| No challenges | 8 | 12.1 |
| Consent slips | 3 | 4.6 |
| Learning assessment | 2 | 3.1 |
| Curriculum connection | 1 | 1.5 |
| Administrative support | 0 | 0.0 |
| Pre-visit activity | 0 | 0.0 |
| Post-visit activity | 0 | 0.0 |

Other Challenges

- Availability of parents to volunteer is an unknown and changes year to year
- Collaborating [with] the Trolley cart, Avery house for the same day.
- Funding for the bus
- Lack of volunteer parents was not the case this year, but does occasionally hinder our comfort.
- Scheduling our date in advance and finding a phone number.
- We have to have buses back by 1:30 so our trip is shortened
- We needed to allocate more time. We also went to the Avery House which limited our time at the museum due to the bus needing to be back for routes.
- Weather-This is a walking field trip for us so we wait until May

Teachers' Feedback to Museum

There is a one-page feedback form (see Appendix E) that museum professionals request teachers to fill at the conclusion of their field trip. Through this feedback, teachers can let educators know of their museum field trip experiences. Of 62 teachers who had been on the field trips, a third indicated filling out the post-field trip assessments (see Table 22). Half of the teachers did not fill out the feedback forms and nine teachers (14.5%) did not remember seeing or filling out the form. Combining the two categories 40 (64.5%), two-thirds of the teachers did not provide assessment of their field trips. The lack of educators' efforts to hand the survey forms to teachers due to rushed field trips could explain not receiving feedback from teachers. The responses did not provide the number of teachers who received the form but did not return it.

Table 22
 Teachers Provided Field Trip Feedback to Museum

| Provide Feedback | Selected by Teachers | |
|------------------|----------------------|---------|
| | Number (N = 62) | Percent |
| No | 31 | 50.0 |
| Yes | 22 | 35.5 |
| Do not remember | 9 | 14.5 |

Changes Suggested in Teachers' Feedback

- Less (fewer) classes at a time
- Meaningful and interactive displays in the gallery students can touch
- Mention history of areas around Fort Collins (such as La Porte)
- More hands-on activities
- More museum staff
- More time allotment
- None, programs are good
- Pre- and post-field trip activities
- Translation (Spanish)

When asked to share the comments or changes that teachers had suggested to FCM personnel in their feedback (see Table 22), most did not respond (n = 43). Eleven teachers expressed satisfaction with the current field trip programs and educators' expertise. Ten teachers shared feedback comments, which included suggestions for more hands-on activities and displays in the gallery, more time and docents, and fewer classes at a time. A teacher from a bilingual school wanted to have programs translated (in Spanish). Others wanted help on pre- and post-visit activities from the museum. Teachers from mountain and rural schools wanted the history of smaller towns included in the presentations so their students could connect.

The teachers who had provided feedback on previous field trips indicated that their suggestions were well received by the educators. These teachers noticed that the programs have become more interactive and hands-on over the years and docents are handling the presentations better. A teacher commented that there were new "presentations, displays, and kid-friendly activities" each year. The trunk check out duration was extended following teachers' feedback. Overall, teachers'

responses suggested that the educators had been accommodating and were eager to work with them. They all appreciated museum educators' support and cooperation.

Additional Ideas and Comments for Future Programming

Teachers were asked to provide comments and ideas that they thought enhance FCM's educational programs for students and/or for teachers in future. Table 23 lists teachers' comments and ideas were grouped in four areas pertaining to museum programming, educators/docents, resources, and logistical issues. Teachers repeated their request to make programs more hands-on and interactive with more artifacts to look at and handle, have pre- and post-activities and ideas from the museum, more time allotted to school programs so if the children are enjoying exploring the museum or exhibits, they are not rushed because docents did not have time. There was a suggestion to "beef-up" the scavenger hunt and add something that children can take home such as handouts. A teacher suggested updates on new things and activities happening at the museum emailed directly to them.

Teachers commended educators and docents for their knowledge and teaching skills, but there were hints for re-enactments and impersonations of characters while telling stories. Having more museum staff to assist during field trips could ease teachers' reliance on parent chaperones. Doing only the activities that connect with classroom learning and spending more time on the programs that are relevant to curriculum were suggested by one teacher. One teacher did not want to spend time in the gallery as "it tends to leave little ones pretty disinterested." Teachers do not want their students to sit and watch a DVD during field trips which they can do at school. A place to have lunch during bad weather, provision of snacks for children, and gift shop to sell reproductions of primary documents--were some ideas presented by the teachers.

Table 23
Additional Ideas/Comments to Enhance Museum Programs

Themes for Additional Ideas/Comments

Museum Programming

- Beef-up scavenger hunt; add something to take home
- Costumes for educators; re-enactment of every day activities
- Guided tour of the gallery
- Like changes incorporated in last years
- Make and take activities (something to construct and take home)
- More artifacts to share with children and talk about
- More concrete program with times would be great (i.e., written)
- More hands-on activities (all children can do something rather than waiting in "Farming in the Fort")
- New programs; watching movie at FCM took away time; didn't get to go inside
- Outdoor programs
- Role playing for historical people; telling their own story--teaching children their role in development of Fort Collins
- Spent too much time on farmhouse and beet activity-not part of curriculum
- Improved over the years; more kid friendly

Educators/Docent

- Continue to have good docents and hands-on experiences for children
- Have more docents; less parent chaperones will be needed
- When split groups, one group is "short changed" because volunteers (docents) don't have time; never enough docents to do activities; has happened many times.

Resources

- Could use funding support
- E-mail to update what is new at the museum, available items for use
- FCM should be more assertive of their offerings
- Fewer classes (1 or 2) at a time
- Handouts
- Have more primary document copies for purchase at the gift shop
- Indoor area to have lunch when weather is bad; need to take advantage of all museum can offer
- Other information or activities available for pre-planning
- Snack

Logistics

- Letting children spend more time if they are enjoying (e.g., Rock exhibit)
 - More time
-

Non Field Trip Users' Response

Two of the six teachers currently not using the FCM field trips wrote that the museum field trip does not support the Core Knowledge, a curriculum sequence different from PSD curriculum and standards. A Core Knowledge teacher wrote that

their focus is more on Colorado geography than history. One teacher suggested that the field trip does not fit their budget. Two teachers were planning to try the museum visit with their 2nd graders later in the year. One mountain school teacher said being outside of Fort Collins, they cannot take a field trip every year. They will be doing the field trip in the next school year and was planning to “utilize it in every way.”

Teachers, who do not use the FCM field trips to supplement 2nd grade social studies curriculum, use a variety of hands-on and interactive exercises in class and information available from PSD to supplement their classroom teaching. Their local history resources include levels books (the standards), *Fort Collins Before* (DVD), and binders available from the school district with tours of Avery House and Cemetery.

These teachers listed a number of classroom activities to enrich 2nd grade social studies curriculum. These were--hands-on exercises, discussions, projects using simulations (e.g., one-room school day), videos, and fun activities. A teacher shared her interdisciplinary approach.

projects, read literature, have guests and interconnect geography and history. We also make connections between subjects (i.e., Ancient Greece’s connection to American citizenship).

Their 2nd graders visit Avery House and the cemetery, go to the Old Town for the trolley, or to see historic buildings in lieu of the museum field trip. A teacher from outside of Fort Collins prefers to give her students an outdoor lesson through their local historical society or visit local landmarks. Another teacher suggested that he/she does a field trip when studying the “westward expansion of 1800s” but did not give details of the field trips. Another teacher took her students to the stables. These teachers did not take their 2nd graders to the museum, but supplemented classroom teaching with opportunities to learn in informal environments outside of the classrooms.

Summary: Teachers' Questionnaire

Teachers' questionnaire responses suggested that they implement field trips to supplement classroom teaching and to give students an experience of the local history through hands-on learning with museum artifacts. Most teachers were satisfied with the historic cabin programs and shared that their students enjoy the activities as part of cabin presentations. In teachers' views, presentation at the *Boxelder Schoolhouse* interests children the most as they can relate to it. Teachers credited educators' knowledge and enthusiasm for learning and enjoyment students experience on informal field trips. Teachers wanted to see more hands-on and engaging activities as part of museum programs in the future. Non user teachers used PSD provided books and DVD and other resources to teach local history.

Student learning is the ultimate outcome educators and teachers expect from the informal field trips. Assessment of learning from informal teaching is complex as it encompasses cognitive and affective gains.

To understand students' gain from field trips, selected teachers were requested to conduct a post-field trip activity in classroom within two days of the field trip. Here is a descriptive analysis of the students' responses collected through this classroom activity.

Children's Post-Field Trip Activity

Second grade teachers from three schools cooperated in conducting the post-field trip activities within two school days of their field trips. Children from six 2nd grade classrooms shared their experiences in writings and/or drawings when asked to express what they had learned on their field trip. One hundred and twenty-five notecards with students' written and/or drawn responses were collected. As the field trip for each school was comprised of different programs, children's responses and recollections of presentations and the activities were varied. Some children listed everything they saw or did at the museum, some preferred to draw, and some used

a combination of writing and drawing to share what they had learned. The information children explicitly shared was reviewed for the purpose of this study.

Overview of the Activity

Children wrote about or drew pictures of artifacts that caught their attention and intrigued them at the museum. Some children were more eloquent with words and some expressed their impressions of field trip with drawings (see Appendix F, Figures 5 and 6). Most children wrote about or drew more than one exhibit or activity. Children's written and drawn responses were systematically coded for the program presentations they attended and the activities they participated in. For example, if a child wrote about *Boxelder Schoolhouse*, it is assumed that he/she attended a presentation at the schoolhouse. If children wrote about soldiers and the map of Camp Collins, they had participated in *Build the Fort* activity at the *Auntie Stone's Cabin* (see Figure 7). One combined and six individual databases were created to explore the data descriptively.

Of 125 responses, 111 (88.8%) had one or more sentences written and 113 (90.4%) had at least one picture drawn with colored or black pencils, crayons, and/or markers. Drawings of 71 (56.8%) students' related to what they had written on the notecards. Many children used colors to explain their pictures. For example, they used neon markers or multiple colors to depict glow in the dark rocks (see Figure 8). Brown and black were choices for cabins. The layer of ox blood in Antoine Janis's Cabin was shown in red over brown. The wood burning stove from Boxelder Schoolhouse was black (see Figure 9).

Among courtyard cabins, the *Boxelder Schoolhouse* was mentioned or drawn by half (n = 65) of the children. It was followed by *Auntie Stone's* (n = 61) and *Antoine Janis's* (n = 59) cabins. *Franz-Smith Homestead* was mentioned or drawn by a quarter of children mostly in relation to the *Farming in Fort Collins* context. The gallery exhibits were mentioned less often than the courtyard exhibits. Eighteen

(14.4%) children drew maps, objects from the courtyard, or building layouts and showed their interest in the museum as a whole. Fourteen (11.2%) children from two schools (A & B) mentioned things related to the permanent exhibit in the gallery such as an old wagon, a mounted coyote, guns, or maps. The data suggests that not many children visited the *Rock this Town* exhibit as 14 (11.2%) children mentioned seeing or drew rocks that glow in the dark. Four (3.2%) children mentioned objects such as spears or fossils, related to Folsom Man exhibit (see Table 24). Table 24 lists the combined frequencies and percentages of children’s depicting the exhibits from the three schools.

Table 24
Children’s Depiction of Exhibits (Combined)

| Exhibit | Depicted by Children | |
|-----------------------|-----------------------------|----------------|
| | Number (N = 125) | Percent |
| Boxelder Schoolhouse | 65 | 52.0 |
| Auntie Stone’s Cabin | 61 | 48.8 |
| Antoine Janis’ Cabin | 59 | 47.2 |
| Franz-Smith Homestead | 32 | 25.6 |
| Museum as a Whole | 18 | 14.4 |
| Rock this Town | 14 | 11.2 |
| Permanent Exhibit | 14 | 11.2 |
| Folsom man | 4 | 3.2 |

Table 25 lists children’s depiction of the activities that they participated in on their field trips. Thirty-eight (30.4%) children mentioned or drew artifacts they saw or heard about at the *Boxelder Schoolhouse*. Seventeen (13.6%) were intrigued by *Build the Fort* activity and 14 (11.2%) by Auntie Stone and her life on the Fort cooking for the soldiers. A quarter of the children mentioned *Franz-Smith Homestead* by including elements of sugar beet farming and bean bag throwing (36; 28.8%). Six (4.8%) students mentioned *Name the Street* activity with drawing of streets. *Rendezvous* (sign language activity) and the scavenger hunt were mentioned by two (1.6%) students each.

Table 25
Children's Depiction of Activities (Combined)

| Activity | Depicted by Children | |
|----------------------------------|----------------------|---------|
| | Number (N = 125) | Percent |
| School Day in 1905 | 38 | 30.4 |
| Throwing Sugar Beets and Farming | 36 | 28.8 |
| Build the Fort | 17 | 13.6 |
| Auntie Stone | 14 | 11.2 |
| Name the Street | 6 | 4.8 |
| Scavenger Hunt | 2 | 1.6 |
| Rendezvous | 2 | 1.6 |

Children's Conceptual Responses

Children's responses varied based on the exhibits they visited and the activities they participated in the field trips. Taking clues from students' post-field trip activity, Table 26 shows an overview from each of the three schools. It is evident from students' work that most of them remembered and could list the exhibits they visited. They were able to describe information or things that seemed novel to them and caught their attention. Schools A and B did not do the school routine of 1905 or *Build the Fort* and the students' notecards lacked the information pertaining to the activity such as writing on slates, doing calisthenics, or singing "Good morning" poem (see Figure 10). School C visited four cabins in the courtyards and participated in *School Day in 1905*, *Build the Fort*, and sugar beet throwing activity (see Figure 7).

Tables 27 and 28 show the frequencies of exhibits and activities depicted in children's notecards by school. Schools A and B visited the four cabins and the museum gallery, but their participation was limited to one activity. These schools did Cabin Tours where one educator took students around to show three or four cabins without much discussion or activities. Students' works included historical information they received during the presentations.

Table 26
Summary of Children’s Post-Field Trip Activity

| Categories | Summary |
|----------------------------|---|
| Field trip overview | <p>Most children gave a list of the cabins they had visited or the activities they participated in. Most wrote and/or drew the recollections of their field trip.</p> <ul style="list-style-type: none"> - <u>School A</u>: wrote/drew Boxelder Schoolhouse, Antoine Janis’s cabin, and Auntie Stone’s cabin; spent time in the gallery exploring permanent and <i>Rock this Town</i> exhibits; participated in <i>Name the Street</i> activity and learned about the Schoolhouse and Auntie Stone; enjoyed museum as a whole. - <u>School B</u>: wrote/drew the historic cabins and museum gallery exhibits; participated in beet throwing activity and learned about the Schoolhouse and Auntie Stone; and did the scavenger hunt; enjoyed museum as a whole. - <u>School C</u>: wrote/drew the historic cabins; participated in <i>Build the Fort</i>, <i>School day in 1905</i>, and <i>sugar beet throwing</i> activities; did not go inside the museum to see permanent or temporary exhibits. |

Table 27
Children’s Depiction of Exhibits (Percentage by School)

| Exhibit | School A Depicted (n = 67) | School B Depicted (n = 20) | School C Depicted (n = 38) |
|-----------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Boxelder Schoolhouse | 44.8 | 50.0 | 65.8 |
| Antoine Janis’ Cabin | 44.8 | 80.0 | 34.2 |
| Auntie Stone’s Cabin | 40.3 | 55.0 | 60.5 |
| Franz-Smith Homestead | 1.5 | 60.0 | 50.0 |
| Folsom man | 3.0 | 10.0 | 0.0 |
| Rock this Town | 10.4 | 35.0 | 0.0 |
| Permanent Exhibit | 16.4 | 15.0 | 0.0 |
| Museum as a Whole | 17.9 | 15.0 | 7.9 |

Table 28
Children’s Depiction of Activities (Percentage by School)

| Activity | School A Depicted | School B Depicted | School C Depicted |
|----------------------|-------------------------|-------------------------|-------------------------|
| School Day in 1905 | 17.9 | 40.0 | 47.4 |
| Auntie Stone | 11.9 | 25.0 | 2.6 |
| Build the Fort | 0.0 | 0.0 | 44.7 |
| Rendezvous | 1.5 | 0.0 | 0.0 |
| Throwing Sugar Beets | 0.0 | 65.0 | 36.8 |
| Sugar Beet Farming | 0.0 | 30.0 | 7.9 |
| Name the Street | 9.0 | 0.0 | 0.0 |
| Scavenger Hunt | 0.0 | 10.0 | 0.0 |

Students' notecards from School C included information such as writing on slates (see Figure 7) and singing the "Good morning" poem in Boxelder Schoolhouse, and building the map of the Camp Collins with wood blocks in Auntie Stone's Cabin (see Figure 11). The activity, *Rendezvous* learning to use various hand-signs for trading, was not mentioned in detail by any school group. A student wrote about learning a hand sign for beaver. Another student expressed desire to learn sign language (see Figure 12). It is not clear as to the extent *Rendezvous* was discussed during the presentations. School A had learned the names of the Old Town streets and Schools B and C participated in the beet farming presentation and sugar beet throwing activity (see Figures 13 and 14).

Information on the exhibits that students from Schools A and B depicted in their notecards was similar to School C students who actually participated in the activities. The post-field trip work from School C had more detailed information on the activities. Students from this school wrote about the fort and Camp Collins and less on Auntie Stone's life. Tables 29 and 30 list students' recollections of trips (exhibits and activities) written and/or drawn in the notecards. It is evident from the data that children described more from the information presented by the educators than from the activities in which they participated.

In their writings, children used new words they heard during presentations with or without correct spellings. It is evident from their responses that they were eager to share what they saw and learned at the museum. Table 31 lists the new words children learned during presentations at various cabins or in the gallery.

In Auntie Stone's Cabin, invariably children ask questions about the locked door and if it would be possible to see what is behind the door. The door leads to a narrow staircase to upstairs rooms. Educators usually tell them to come and check upstairs on their next trip with their parents. Children did remember and mentioned

Table 29
Children's Recollections of Exhibits

| Exhibit | Written and Drawn Responses |
|---|--|
| Boxelder Schoolhouse | <p>Wrote interesting information that caught their attention or appeared novel to them</p> <ul style="list-style-type: none"> - Children attended school for 3-4 months - Children in olden days had to bring coal and wood to school as tax - Children played pranks and put ink in other children's hair - Big black stove in the middle of the room - Math problems on board - Mixed age classrooms - Old fashioned chair and desks with place to hold ink - Punishments (sitting on dunce stool and wearing dunce hat, putting nose in the circle drawn on chalk board) children received for misbehaving - Strict teachers - Beaver hat |
| Antoine Janis's Cabin | <ul style="list-style-type: none"> - Building was 120 years old - Children shared room - Children slept on logs in the loft - Did not have fireplace or electricity in the cabin before - Janis's family of 12-14 children - Oldest cabin - Rope bed and its connection with the expression "sleep tight, don't let the bed bugs bite" - Signing for beaver - Use of ox-blood to harden the dirt floor |
| Auntie Stone's Cabin | <ul style="list-style-type: none"> - Rubbing from her grave stone - She cooked for soldiers, ran a restaurant and store, opened school in her cabin - She started her business when she was 60 - She was the first business (entrepreneur) woman in town - Staircase going up and rug on floor - When she died at 94, the church bells rang 94 times |
| Franz-Smith Homestead | <ul style="list-style-type: none"> - Secret hiding place |
| Permanent Exhibit in the Gallery | <p><u>Permanent Exhibit in the Gallery</u></p> <ul style="list-style-type: none"> - Covered wagon/stage coach with new parts - Coyote - Guns - Soldier - Stuff in drawers |
| | <p><u>Rock this Town</u></p> <ul style="list-style-type: none"> - Glow in the dark rocks - Exhibit with music equipment and headphones |
| | <p><u>Folsom Man</u></p> <ul style="list-style-type: none"> - Digging pit - Dinosaur bones and spear points - Bison skull (skull) |
| Museum as a Whole | <p>Listed items seen in the museum (e.g., gun, flower, bird, rocks, bathroom, map, dry water trough, and trees)</p> <ul style="list-style-type: none"> - Building layout - Museum layout |

Table 30
Children's Recollections of Activities

| Activity | Written and Drawn Responses |
|--------------------------------|---|
| School Day in 1905 | <ul style="list-style-type: none"> - Doing math problems - Good morning poem - Writing on slates |
| Build the Fort | <ul style="list-style-type: none"> - Fort Collins was a Fort before - Made a map of early Fort with blocks - Drew maps of Camp Collins |
| Farming in Fort Collins | <ul style="list-style-type: none"> - Sugar beets and its size (8"-9") - Beets were planted 1-2 feet apart - Special tool to dig and cut sugar beet tops - Sugar beets were heavy - Children worked in the fields - Sugar beets were helpful to people and sheep - Children dug out beets; cut the tops, and threw those on the wagon - Students threw beets |
| Name the Street | <ul style="list-style-type: none"> - Streets are named after famous person - Poem to remember street names |
| Scavenger Hunt | <ul style="list-style-type: none"> - Was fun |

Table 31
Evidence of Children's Diverse Learning Capabilities

| Categories | Evidence Summary |
|-----------------------|---|
| New vocabulary | <p>Learned new words during presentations.</p> <ul style="list-style-type: none"> - Rondoabo (Rendezvous at Antoine Janis's Cabin) - Plaided streets (Name the Street) - Union soldier - Louft (loft in Antoine Janis' Cabin) - Paleyoligists (Paleontologist) - Sowing mischeen (Sewing machine) - Headmaster and headmistress - Harsh (in context to school) - Exzibet (exhibit) |
| Restrictions | <p>Remembered that educators stopped them from going upstairs in Auntie Stone's and Franz-Smith Homestead</p> <ul style="list-style-type: none"> - Students were not allowed to go upstairs |
| New Ideas | <p>Understood bigger concepts related to museums</p> <ul style="list-style-type: none"> - Learning more about sign language - Stagecoach with new wooden part to preserve it |

in the notecards that they were not allowed to see upstairs rooms in Auntie Stone's Cabin. Children mostly repeated the information on exhibits or activities that educators shared with them. A student wished for learning more sign language although it was not covered in detail as part of the Antoine Janis Cabin presentation. Another student's observation was that the stagecoach (wagon) in the gallery has been patched with new wood for preservation. This was an evidence of the child's critical thinking skill to relate to a larger concept (see Table 31).

Children's Affective Responses

Most children used the post-field trip activity as "thank you" notes to museum educators despite the instructions to share what they learned on their museum field trips (see Appendix D-6). They thanked educators for a good field trip and for the new information learned at the museum. The notecards included comments such as "museum is a cool place" or "I sincerely liked the museum." Children's responses included flowers, happy and smiling faces, birds, buildings, artifacts, and painstakingly detailed information and drawings of the museum. Their written/drawn work depicted the happy emotions most children felt about their museum field trips. With factual information, many children wrote that they "really loved the cabins", they "liked sitting in the old schoolhouse" or the trip was "cool." Phrases such as "it was fun and I wish I could go again" tell that children had a good time. Some children wrote that they really had fun or good time at the museum.

Children's comments and pictures were as diverse as the itinerary of their field trips. It was fascinating to see the details young 2nd graders included in their notecards. They noticed things that were not explained as part of field trips. A dry water trough in the courtyard (not shown), layout of the museum's gift store and the headphones part of the Rock this Town exhibit (see Figure 15), and a sewing machine in Auntie Stone's Cabin (see Figure 16)--all caught children's attention without being told about them.

They drew themselves on the field trip and participating in presentations and activities. Figures 17 and 18 depict children attending presentations at the *Auntie Stone's Cabin* and working on the sugar beet farm. They drew children sitting in the *Boxelder Schoolhouse* and playing tricks on other children. Children made connections with the exhibits. A student with last name "Elder" liked the *Boxelder Schoolhouse* because it shared part of his name (see Figure 19). He also showed himself sitting in the schoolhouse classroom where another student has received a punishment to sit on a dunce stool wearing a dunce hat (see Figure 19).

Summary: Post-field Trip Activity

The activity was a component to examine children's gains from museum field trips. It is evident from students' responses that their learning was not limited to historical facts and information. Second grade children were curious about many objects and artifacts that they saw at the museum. Most children described their museum field trip eloquently in words as well as in pictures. Children's responses included information that they found interesting. Punishment to sit on a dunce stool or wearing a dunce hat, use of ox blood to harden dirt floor in *Antoine Janis's Cabin*, Auntie Stone's life, children working on sugar beet farm and helping parents, an old-style rope bed, and 12-14 children sleeping in the loft on wooden logs were depicted by most children. Children were genuinely intrigued by the rocks that glow in dark. Many were fascinated by the old stagecoach or covered wagon displayed in the main gallery. A child drew the gallery and the rock exhibit with headphones to hear music. Another was curious about sign language. A child drew the fossil pit and another wrote about dinosaur bones and spear points. Overall, these responses portrayed children as happy observers and learners at the museum.

Comparisons of Educators' and Teachers' Perceptions

Educators and 2nd grade teachers are representatives of the FCM and PSD elementary schools, respectively, as initiators and users of the field trip programs.

In the previous sections educators' and teachers' perceptions and processes (RQ: 1 and RQ: 2) related to the museum's field trip program integration and consequent learning were discussed. The discussions of the observations of educators' presentations and the children's post-field trip activity were included. The purpose of the study was to explain the partnership between FCM and PSD schools by comparing the educators' and teachers' perspectives and processes on the seven stages of the 2nd grade field trip delivery/integration (RQ: 3). These stages were (a) purpose, (b) preparation, (c) implementation, (d) assessment, (e) challenges, (f) best practice, and (g) future.

Deciding the purpose and preparing programs for delivery were parts of the pre-field trip process. Program implementation was the delivery of what was planned and prepared to achieve the expected educational outcomes. Assessment of presentations and learning, discussion of best practices, and planning for the future were undertaken as post-field trip processes. This section compares educators' and teachers' perceptions before, during, and after stages of the field trips.

Pre-Field Trip: Purpose and Preparation

Educators offer field trip programs to impart experiential and hands-on learning and to supplement classroom teaching. Through museum programs, they want to enhance children's interest in (local) history through object-based experiential learning.

if they actually see an object or a house that makes it a reality and have a better understanding of what they are learning [in classrooms]. It's not just a story, a fiction, and it actually seems real the things they see inside the cabin or if looking at an art or seeing photos from 100 years ago.

Children get to know that legendary Auntie Stone and Antoine Janis were real people when educators take them to the Stone's cabin or show a picture of Janis, his Sioux Indian wife, and his family. If the field trips connect directly to the curriculum, the learning outcomes that educators expect to achieve are much broader. They want

children to find the museum as an exciting and interesting place where history comes alive.

In terms of outcomes, educators want children to learn the facts about local history as well as develop an understanding of the museum and its operations. Fun, enjoyment, excitement, experiences, learning, and combinations of these words--are among the diverse outcomes that educators expect for the 2nd graders. Educators focus on informal learning and channel their efforts to make the field trip a memorable experience for every child rather than repeating a lecture from school (Dierking, 2002). Ultimately, it is what children take with them that matters to educators.

Each student will get something different, one may come in and what they are experiencing is a day out of school on field trip. Others student may come in and decide that working on the farm as a child are things I have very a fond memory of.

Educators' and teachers' purposes for field trips match to the extent of learning local history through experiencing the cabins. Curriculum connections provide a common ground to the educators to start dialogue with children and give a justification to the teachers to plan field trips. While educators want students to have lifelong memories and connect with the museum; teachers aim for cognitive learning experiences (Kisiel, 2003a; Tran, 2004). There are teachers who think local history does not encompass the entire museum and they do not include a gallery visit in their itinerary. In contrast, some teachers consider exhibits such as *Rock this Town* and *Folsom Man* as additional learning opportunities for children.

Teachers' expectations from field trips include the same components but their primary focus is learning related to curriculum standards. Teachers' main purpose is to integrate field trips as a supplement to the local history curriculum. They want children to gain experiences of historic cabins through hands-on and interactive history as a mean to connect to what they are learning in school. For expected outcomes from field trips, like educators, most teachers want students to have

positive experiences and enjoy visiting and learning in a place other than their classrooms. The majority of teachers expect fun to be a part of learning on field trips, though they do not identify it as their primary purpose for the visit. A few teachers mentioned additional learning outcomes which include—"a deeper understanding of Fort Collins history" getting "excited about learning", and understanding the "connection of past to present." Despite expectations of broader learning outcomes by some teachers, it is the connections with curriculum through enriching information, experiences, and enjoyable hands-on and engaging activities that appeared to be the purpose teachers communicate to educators before the field trip (Cox-Peterson et al., 2003; Kisiel, 2003a; Xanthoudaki, 1998).

Teachers see a museum field trip as an opportunity to bring history *alive or real*. Kisiel suggests that like any other visitors teachers have more than one reason to bring children to the museum. *Lifelong learning, fun, and exposure to a novel place* are all important outcomes that teachers expect from the field trips. The differences between the reasons teachers communicate to educators and the outcomes they expect from field trips could be contributed to the lack of a well-defined agenda and preparation for field trips (Kisiel, 2003a).

Educators feel responsible for preparing teachers and students for field trips by sharing program related information and providing pre-field trip activities, although they have not seen teachers requesting them. At present, there are some activities available for teachers to use in class which educators want to revisit and improve. Six of 66 teachers were aware of the pre-field trip activities that the museum provides. Educators said that teachers have not asked for pre- or post-field trip activities, however, many teachers wrote in their responses that they would be interested in receiving those to use in classrooms. Teachers, who are aware of the Schoolhouse trunk, use it in their classrooms to simulate a full day of early 20th century school activities.

Gaps were found in educators' efforts to prepare teachers and their students for field trips using information packets. Educators want teachers to prepare children and follow the information sent in the packets. They do not think that teachers always read the information packets. Teachers think that the museum is not consistent in sending information packets. Their responses suggest that educators do not contribute in classroom activities before- and/or after-field trips. Educators help teachers in planning of field trips by being flexible and accommodating their schedules.

Training has evolved to prepare docents with in-depth information on local history. Docents are expected to do focused presentations to convey two to three main ideas to young audiences. The flexibility of exercising their personal teaching style adds interest to presentations. Docents are experienced to adapt and modify presentations to meet the needs of school groups. Educators believe that children should experience the museum as a place to enjoy and explore, but agree to teachers' requests of historic cabin tours or shorter field trips, which defeats the museum's mission.

Teachers prepare students by teaching the unit on local history in class. Teachers' agendas and motivations for field trips influence students' experiences and learning outcomes (Kisiel, 2006b). Some teachers start the unit with the field trip so the students visit the museum without background knowledge. Others end the unit with field trips. Educators think having contextual knowledge of local history enhances students' experiences at the museum (Falk & Dierking, 1997), though it is not explicitly suggested to teachers when scheduling their field trip. It is the best way to optimize learning as educators do not want learning to end as children board buses and leave. This scheduling gives teachers an opportunity to reinforce and extend the museum experiences using a variety of post-field trip activities (Anderson, Kisiel, & Storcksdieck, 2006).

It appears that educators and teachers both aim for student learning where the former focuses on providing experiences and the latter on curriculum. Educators prefer building experiences to enhance curriculum and teachers look for support to enhance classroom teaching through experiences. Researchers have called this a “conflict” of agendas (Anderson, Kisiel, & Storksdieck, 2006; Kisiel, 2003a; Tran, 2007) between educators and teachers. The differences in purposes and preparation efforts are affecting the outputs as well as the outcomes of the field trips. Despite having open communication channels, educators feel that not all teachers take advantage of the museum resources or educators’ expertise.

Implementation of Field Trips

Findings support Kisiel’s conclusions and suggest that teachers’ agendas play a critical role in shaping field trips experiences for students (2003a). Educators share the responsibility of student learning with teachers by supplementing classroom teaching using museum resources and their expertise on local history (Tran, 2007). Educators’ and teachers’ purposes and preparation have a direct bearing on successful field trip implementation and students’ learning outcomes. The difference between teachers’ and educators’ field trip purposes influences the implementation of field trips. Teachers, who think that the courtyard cabin presentations connect better with the curriculum and standards than the exhibits in the museum gallery, request the cabin presentations and related activities to optimize student learning from field trips. They want students’ field trip experiences to link directly to classroom teaching, learning, and activities.

Once the field trip itinerary is finalized by teachers, it is the educators’ responsibility to decide agenda and activities. Teachers generally do not provide input on these. Educators believe that teachers’ preparation of the students does set the course of the field trip and impacts students’ learning (Tran, 2004). Educators

think that students are more focused during presentations if the experiences build upon prior knowledge.

Educators do not know what stage of the unit in which the field trips are scheduled, unless teachers directly communicate and offer the information. It was observed by the researcher that educators spend part of the presentation time gauging students' background knowledge. By asking questions, educators establish contexts of presentations with children (Tran, 2004). This time could be effectively used to share historical information if educators know what children have already covered in school. Time, which educators and teachers feel is limited, can be used effectively if teachers communicate their expectations to educators ahead of the field trips. Alternatively, educators may use a query list to gather information on students' curriculum context when scheduling the field trip.

Educators feel encouraged if teachers' bring students prepared for learning new information and experiencing the museum. Whether students come prepared or are starting at the beginning of the unit, educators still aim to provide good learning and educational experiences. During program presentations, teachers encourage students to participate in discussions with educators and pay attention to information. They feel responsible for students' behavior. Educators appreciate teachers' participation to guide the presentations. They seldom have teachers who try to take over the presentations.

Educators think their presentation styles influence students' interest and motivation to learn as was noted by other researchers (Tran, 2007; Xanthoudaki, 1998). They accept non-linearity of learning in informal environments as suggested by Falk and Dierking and make efforts to deliver a positive museum experience so children will want to visit again with family and friends. Students pay attention to interesting information and details when educators present it with enthusiasm. It was observed that during monotonous presentations with many historical facts and

names 2nd graders lose interest. Teachers credit educators' informal teaching styles and extensive knowledge of local history for students' learning gains.

This is the stage where educators have opportunities to practice object-based learning and teaching theories and connect children to the museum. Compromises are seldom made to accommodate teachers' agendas (e.g., a fast-paced Cabin Tour) or time constraints (e.g., chaperone showing the time to board buses). How do fast-paced field trips impact student learning?--is a question worth examining by educators using post-field trip assessments.

Post-field Trip: Assessment

There is a difference in teachers' purpose and the outcomes they expect from successful field trips (Kisiel, 2003a, 2005). Deciding success of a field trip, teachers side with educators and judge success with *positive experiences, enjoyment with learning, long lasting experiences and memories*, and combinations of these descriptions. Like educators, teachers accept satisfaction if children have fun-filled experiences with conceptual learning. They expect *conceptual knowledge* as an outcome but take affective gains into consideration while assessing gains from the short one-time informal experience. With broader outcomes to assess field trips, the majority of teachers stated satisfaction with educators' overall implementation of field trip programs. They think educators are knowledgeable and present age-appropriate activity oriented programs.

Teachers' comments at the end of or after the field trips suggest successful implementation (output), but do not validate students' gains (outcome). Teachers' field trip feedback survey is the direct assessment tool that one-third of them completed. The feedback form is designed for teachers' overall assessment of field trips (see Appendix E). Educators understand the need for a comprehensive feedback but feel restrained by time to design another instrument. Educators do not have a method to directly assess children's learning gains from one-time field trips.

As Tran suggested in her research that they can “hope” that teachers would extend and reinforce field trip learning experience in classrooms (2004, p. 178). Educators recognize that if museum field trips are meant to supplement school curriculum, not all teachers consider it necessary to reinforce the museum field trip experiences in school.

Teachers use classroom discussions to assess children’s learning gains. A majority of teachers plan writing and drawing activities to assess what children learn (or remember) from the museum trips. Teachers also have children write thank you notes to educators as part of their writing activities, which is a fairly common practice. Children include drawings of objects and information they found interesting. Educators accept children’s notes as a validation of effective field trip implementation but have not analyzed them in any systematic way. They are impressed with children’s eloquence and attention to details and credit teachers for taking time to reinforce museum field trips. If analyzed critically, like the post-field trip activity, the content depicted in informal thank you notes can provide valuable insights and prove a testament of student learning.

Overall, educators think the current programs match the curriculum standards well and are quite satisfied with the overall programming. They are aware of areas which could use modifications to serve teachers’ and students’ better. Teachers indicate satisfaction with museum programs as they think they are hands-on, interactive, appropriate for the 2nd graders, and tied to the educational goals. The next section provides a discussion of children’s written and drawn work gathered as post-field trip classroom activities.

Children’s Gains from Field Trips

In this study, educators and teachers agreed that the *Boxelder Schoolhouse* interested children the most as they relate to the school setting. The schoolhouse presentation focuses on the differences and contrasts of schooling practices of the

past. Teachers think children enjoy the legendary story of Auntie Stone and the activity *Build the Fort* that takes place in the cabin. Educators and teachers believe that hands-on and engaging activities are important aspects of presentations.

An examination of children's written and drawn work, as post-field trip activities, suggest that 2nd graders remembered the cabins they visited. Children's included interesting historical facts shared by educators whether or not they participated in the related hands-on activity. Children shared their interest in objects and artifacts that they saw at the museum themselves such as a dry trough and well in the courtyard, a sewing machine in Auntie Stones' cabin, and headphones in *Rock this Town* exhibit. Some children drew the layout of the courtyard and the museum building with details of floors and elevator.

Children's work supports the object-centered learning in novel settings suggested by Hooper-Greenhill (2000). The evidence that children connected with the physical surroundings of the museum support the theory of place-conscious learning by Gruenewald (2003). Leach elaborated on Gruenewald's findings and talked about dynamics of learning that take place in a museum (2007). Leach suggests that character of place and objects play important roles in visitors' interacting and learning. According to her, it is the display (or presentations) of objects in relation to the physical setting which impacts visitors, youth and adults. This theory has similarity with Falk and Dierkings' model of contextual learning that identifies the physical aspects of the field trip setting as one of the important contributing factor of learning in museums (2000).

From the Schoolhouse presentations 2nd graders remembered that children in the past had to bring coal and wood as a tax to sit closer to the stove. If students of *Boxelder Schoolhouse* played pranks or misbehaved, they had to sit on a stool wearing a dunce hat and the visiting 2nd graders find this information fascinating. Writing on slates with slate pencils is novel for children who use computers in

classrooms. The fact that Auntie Stone was brought to cook for the soldiers at Camp Collins and that she ran a restaurant and businesses in town was mentioned by many children.

Use of ox blood to harden the floor in Antoine Janis cabin was reported by many students. The rope bed and the poem "sleep tight, don't let the bed bug bite" fancied 2nd graders more than the historic background of Antoine Janis or his alliance with Native American. Children were awed by the information of his family of 12-14 children who slept on wooden logs which made a loft in his one room house. Children could attend school part of the year as they had to work on farms to help parents--many 2nd graders found this information interesting. They drew pictures of the Franz-Smith cabin and children working in the sugar beet farms.

Children who visited the museum gallery and the seasonal exhibit *Rock this Town* especially remembered the rocks that glow in dark. A stagecoach parked in the museum gallery and rocks glowing in dark--are examples of exhibits that 2nd graders depicted in their notecards without attending a related presentation or activity. These findings support the place-based and multi-dimensional learning that take place in museums (Leach, 2007). According to Piaget's cognitive development theory, 2nd graders are at late-preoperational or early-concrete operational age. At this age children develop language arts skills and are highly imaginative. They are observant and interpret things from egocentric perspectives (Sigel, 1968).

Educators and some teachers understand the museum's novel learning environment plays a role in getting children's attention to objects that were not part of the presentations (Hooper-Greenhill, 2000). Whether it was a historic fact (e.g., student attending one-room school), an object (e.g., glowing rocks), or a contrast from their lives (e.g., children bringing coal to fuel the school stove)—it piqued their interest.

It is evident from the content of the drawn and written work that children's gains were not any less if they attended the Cabin Tour and not participated in many individual activities associated with cabin exhibits. Despite a fast-paced Cabin Tour, the 2nd graders of School B depicted more objects and information than the 2nd graders from the other two schools. This difference may be attributed to their teacher's initiative to reinforce the field trip. Cognitive gains are dependent upon how well field trips are reinforced in schools (Kisiel, 2005; Sheppard, 2000). These findings suggest that compared to educators, teachers have more opportunities to reinforce museum experiences and impact learning.

Children incorporated new words that they heard on field trips. Words--rondoabo (rendezvous), exzibet (exhibit), sowing mischeen (sewing machine), and paleyoligists (paleontologist)--were used without the correct spellings. At an age where children are developing and mastering language art skills, field trips have potential to tie with language arts and English standards in addition to local history curriculum (Sigel, 1968).

Depictions of field trip experiences show that children were happy, excited, amazed, curious, and attentive at the museum. Educators and teachers may have had an agenda to connect field trip to curriculum; children remembered it as a fun-filled visit to a historic place (Wolins et al., 1992). Educators and teachers both play important roles in making museum field trips positive experiences for 2nd graders. However, teachers are in a better position to extend and infuse conceptual and affective learning from short and one-time museum experiences and extend them with classroom efforts (Falk & Dierking, 1997; Wolins et al., 1992).

Partnership of FCM with PSD Schools

Wilkinson developed a model to explain workforce partnerships on the basis of purpose and level of interactions partners shared. The model explains partnerships at four levels starting from cooperation, which presents a parallel

existence for a common goal, to integration where partners launch seamless integration of resources for mutual benefit (2008). These levels of partnership are defined here.

1. Cooperative: An unofficial relationship toward a common goal based on general communication to share information.
2. Coordinated: Usually, a short-term arrangement for a specific activity (such as field trip organization) to achieve specific outcomes.
3. Collaborative: Usually, long-term arrangement involving mutual decisions to achieve targeted outcomes.
4. Integrated: Involves equal investment of resources using a common language to achieve efficient and effective delivery of services controlled by both partners. (Wilkinson, 2008)

The partnership between educators and teachers who represent the museum and PSD schools can be explained using Wilkinson's model. Analyses of educators' and teachers' experiences suggest gaps in purpose and interaction before, during, and after field trip stages, which prevent the partnership to advance to collaboration (and integration). The basic difference in teaching philosophies at these institutions prevents the partnership to be truly integrated with seamless field trip implementation and shared resources to optimize student learning. Staying true to the museums' object-based and free-choice informal teaching and learning, educators deliver programs focusing on building memories and experiences and getting children excited about history and the museum. Teachers want conceptual learning gains among students to justify out-of-school outings. Lack of communication is evident from inconsistencies observed in educators' efforts to prepare teachers for field trips.

During the interviews, educators indicated including pre-field trip activities in information packets which many teachers did not remember seeing and using. Educators' efforts to prepare teachers and their students through the information

packets are not realized when teachers do not receive the packets or do not use them. In absence of help from educators, teachers rely on their own resources and classroom teaching to prepare students. Apart from scheduling of the field trips there is no direct interaction between educators and teachers.

As suggested by Kisiel (2003a) and Tran (2007), teachers' and educators' agendas play important roles in implementing field trips and achieving students' learning outcomes. If educators know ahead of the field trip where the students are in their history unit, they can plan more effective, detailed, and individualized presentations. During each presentation, they spend time to gauge students' background knowledge. This time can be utilized more effectively if teachers let educators know what children have already covered in schools or educators make efforts to find this information ahead of the field trip.

During field trips' implementation, educators offer options and accommodate teachers' request sometimes at the cost of the museum's mission of promoting and educating using the core collections. Educators want to share the local history with children using artifacts that date back 12,000 years. When teachers show no interest in museum's permanent collection and associate the field trip with courtyard cabins, it somewhat defeats the educators' purpose of connecting children with the museum.

Educators consider the 2nd graders' thank you notes and teachers' survey valuable, which confirm the programs' usefulness to teachers but does not assess the students' learning, the targeted outcomes. The feedback surveys, filled and returned by a third of teachers, suggest fulfillment of the purpose of field trips for 2nd graders. Teachers like the field trips' connection with the curriculum standards supportive of their teaching local history to 2nd graders. Field trips are supplementary to teachers, where it is a need for the museum. To prove usefulness of its collections and support the museum's mission, 2nd grade field trips serve as a

resource and an educational outlet to learn and teach the history of Cache La Poudre region.

It is evident that the partnership for field trips between the museum and schools is somewhat a one-way arrangement to supplement 2nd grade social studies curriculum and standards. Beyond this arrangement educators and teachers do not share direct communication or resources. Lack of a unified purpose and vision is keeping them from an integrated and sustained partnership. Based on these findings, it can be concluded that the partnership that the Fort Collins Museum and Poudre School District share through educators and 2nd grade teachers is at the coordination level (Wilkinson, 2008).

To take this partnership to collaboration or integration levels, educators and teachers need to make a unified commitment for student learning. This can be achieved through enhanced communication, shared resources to train teachers to capitalize on museum resources, and most of all, giving teachers an opportunity to understand the museum's educational mission. These recommendations to advance the partnership are discussed in detail in the next chapter.

CHAPTER V

RECOMMENDATIONS AND IMPLICATIONS

In the previous chapter, findings from different data sources were compiled and the partnership between the FCM and PSD schools was explained by comparing educators' and teachers' perceptions and processes of field trip delivery and integration using Wilkinson's levels of partnership. Children's post-field trip activity shed light on conceptual and affective gains from short one-time field trips. These gains were influenced by educators' interesting presentations and teachers' classroom teaching to prepare and reinforce field trips. In addition, the museum as a novel and informal place enhanced 2nd graders' curiosity and interests (Gruenewald, 2003; Leach, 2007).

The partnership between the two educational institutions appeared coordinated to supplement the 2nd grade curriculum. This is a once a year arrangement between educators and teachers specifically to give 2nd graders a chance to experience history and curriculum in an informal setting. Differences in purposes and lack of direct communication between educators and teachers restrict the partnership to advance to the level of collaboration (or integration) (Schneider, 2003; Wilkinson, 2008). The inherent difference in each institution's educational philosophy impacts educators' and teachers' outlooks of field trips. Museum programming incorporates free-choice, non-evaluative (or informal) and interpretive learning theories whereas schools are seen as formal education institutions guided and structured by curriculum standards and assessments (Falk & Dierking, 2006b; Schneider, 2003; Tran, 2007).

Staying true to the museum's mission, educators provide informal education through object-centered teaching. Learning and experiences result from young visitors' constructive interpretations and interests (Packer, 2006). For 7-8 year olds,

enjoyment is also important. At this age, children look at things from an egocentric perspective as was evident from children's drawn and written work (Sigel, 1968). Many children drew themselves writing on slates in Boxelder Schoolhouse and working on sugar beet farms. Students' words and drawings depicted interesting information shared by the educators and connections they made with the museum as a place for informal learning (Gruenewald, 2003). They drew many things which were not included in any presentation such as glow in the dark rocks from the exhibit *Rock this Town*.

Teachers incorporate formal education guided by curriculum standards and assessments. Most teachers use PSD prescribed resources to teach in classrooms and rely on the museum's programs for the hands-on experience of the local history curriculum. They communicate curriculum connections as the main reasons for field trips to educators (Kisiel, 2005). To designate a successful field trip, the teachers choose the aspects *learning with enjoyment* and *positive experiences over learning history* and *conceptual learning gain*. Teachers, who are cognizant of the lifelong learning opportunities informal environments can provide, extend students' museum experiences in the classroom with additional activities to reinforce the museum field trip. These teachers support children's lifelong learning experiences and tend to have collaborative partnerships with educators at individual levels. However, most teachers implement museum field trips to supplement classroom teaching and do not reinforce experiences gained at the museum.

As the partnerships are defined on the basis of shared purpose and interactions, the relationship might be harder to change at the institutional level. There is potential to change it at the teachers' level. With direct and enhanced communication with teachers to make them aware of the museum's mission and resources, and in turn, learning their expectations, partnerships between educators

and teachers can advance to collaboration or integration (Schneider, 2003; Wilkinson, 2008).

Recommendations for Museum Educators

Based upon educators' and teachers' perceptions and processes on 2nd grade field trips, here are the recommendations for museum educators to advance the partnership with teachers from coordination to collaboration (and integration) and enhance student learning.

1. Direct and Improved Communication with Teachers

Findings suggest differences in educators' and teachers' purposes of field trips with educators focusing on imparting lifetime experiences and teachers wanting conceptual gains for the 2nd graders. The differences may not matter if the 2nd grade field trip is a product that museum is trying to sell. In that case, teachers' satisfaction becomes the ultimate goal. In reality, educators are trying to fulfill FCM's mission to be an educational institution supporting learning through experiences with its historic collections. The educators' (and eventually the museum's) purpose to provide experiential and lifelong learning is as important as teachers' purposes to connect field trips with curriculum and conceptual gains for 2nd graders.

At present, there is limited direct communication between educators and teachers for organizing field trips. Educators recognize that most teachers want conceptual gains from cabin presentations and do not associate curriculum with the gallery visit. Teachers' show little awareness or consideration of the museum's or educators' mission of lifelong gains in identifying the purpose of field trips. A few teachers acknowledge additional gains of lifelong learning, enjoyment, and experiences as possible outcomes. To have an equal partnership, educators need to proactively inform teachers of the museum's purpose of imparting experiences through field trips. Informational events can be planned using the PSD annual

calendar which includes holidays, teacher work days, and collaboration days. There are many ways to inform teachers of the museum's mission and resources available to enhance learning on field trips which are discussed below.

Educators usually start presentations by asking questions to gauge how much children know about local history or what they have been learning in classrooms. This is an effort educators make to individualize the presentations. It will save time during presentations if educators gather this information using a query list when taking the reservation for the field trip.

Invite Teachers on Advisory Board

On a nationwide education listserv discussion in Dec. 2008 museum professionals suggested having teacher advisory boards comprised of 15-20 elementary grade teachers or more representing schools to plan and process field trip programs. These boards should be invited for three or four meetings a year to discuss program goals and agendas, brainstorm new program ideas, and review progress of the current programs. This direct communication between partners is necessary to set a course of museum programming supporting a unified purpose and coordinated efforts for shared learning outcomes. Teachers on the board may enjoy incentives such as free/discounted memberships, preference for attending lectures, classes, and educational seminars, and discounts at museums' gift stores (Based on museum professionals' postings on a MER listserv in Dec. 2008).

Offer Teacher Preview Days

Teachers can be invited to preview programs and resources (e.g., pre-and post-activities, trunks, etc.) available at the museum to support classroom teaching. A preview organized at the beginning of the school year will give teachers a head start for planning and preparation of the field trips to optimize learning gains. It is important for teachers to understand the museum as a novel place and the roles objects, exhibits, and displays play in the dynamics of learning to capitalize on field

trips. Teacher previews can present opportunities to share field trip implementation strategies with their colleagues.

Reaching teachers of private, core knowledge, and charter schools, as well as home-schooling parents, is important to understand their curriculum needs and to make them understand how their needs can be fulfilled through museum programming. Inviting them to attend teacher preview days will be an opportunity for educators to introduce museum programs.

Train Teachers to Bridge Gap between Formal and Informal Education

Educators need to proactively promote museum's experiential and informal methods of learning by training teachers to optimize student learning. Teachers' questionnaire responses suggested that many of them were not trained to use museum resources. Educators can organize in-service and pre-service training sessions for teachers and teachers-to-be on museum learning methods and resources in conjunction with teacher preparation programs. Research shows training on museum resources help teachers in professional development and classroom teaching (Penna, 2007). During these sessions teachers are made aware of research to extend museum experiences in schools. They can earn professional development credits for attending the sessions.

Invest in Informational Website

It is important to have a user-friendly website where teachers can find pertinent information on field trips. The museum's website could include pre- and post-field trip activities, assessment forms, museum programs and exhibits, and information related to field trip reservations. Teachers can access the website to download classrooms activities as well as use it as a venue to provide constructive feedback to the museum. A web interface between educators and teachers is essential when both have time limitations.

Visit Classrooms

Educators can build rapport and field trip contexts with teachers and 2nd graders with pre-and/or post- visit(s) to classrooms. Setting the context before the field trip helps children have focused interactions with objects and exhibits which further impacts learning (Anderson, Kisiel, & Storksdieck, 2006; Falk & Dierking, 2000; Piscitelli & Anderson, 2001; Puchner et al., 2001). Pre-visits can establish a common knowledge base among children that educators can use to build the museum presentations.

Educators' post-field trip visits will help extend and reinforce the museum experiences for teachers and students. Time constraints may limit educators to make such visits a reality. In absence of these, educators may design pre-and post-field trip classroom activities, which may have the same impact as visits. Educators should post pre-and post-field trip activities online that teachers can download at their convenience for use in classrooms.

Attending teachers' professional organization meetings may give educators a venue to initiate dialogue with teachers. This will give educators a chance to network and have multiple contacts in the teacher community. Relying on a Curriculum Coordinator as the conduit may not be enough to enhance visibility of the museum. These sessions would provide educators opportunities to directly answer teachers' questions and promote museums' programs.

2. Provide Better Learning Opportunities to Children

Students' post-field trips activities were conducted within two days of the trip; hence, it is hard to verify if the information depicted by the children was evidence of learning or short-term memories. Children's notecards included substantial information about objects and artifacts they saw at the museum. More than the concepts on how events shaped history of northern Colorado, children remembered interesting facts and stories from the field trips (Cox-Peterson et al., 2003). It was

evident from children's work that educators' enthusiasm influenced students' experiences more than the hands-on activities. Engagement with exhibits and objects, which is generally measured in time spent, does not necessarily translate into learning. According to this research with children, "short periods of time under the right conditions" are enough for high quality learning (Puchner et al., 2001, p. 57).

Educators and teachers are responsible for providing the conditions to optimize children's learning by giving them an experience of the museum as a place. Research suggests that children learn best by social interactions (Puchner et al., 2001). Children should get opportunities to express, in writing, drawing, and/or through discussions with peers, what they experienced at the museum. Educators' must keep some time with children to review the field trip experiences and information before they return to school. The discussion can be used to answer queries and provide clarifications. To promote children's interactions and critical thinking at the museum, educators may consider increasing time or doing two rotations instead of three to have time for discussions before concluding the field trip.

Educators incorporated vocabulary words appropriate for 2nd graders in the presentations. Words like *parallel*, *cavalry*, and *barracks* were used during presentations and their meanings explained. Children's writings included words, phonetically correct (but misspelled) to depict their experiences and what they had heard at the museum. This evidence provides an opportunity for educators to connect field trips to language arts standards. Educators may present new words with correct spellings and meanings on cards posted during presentations and/or integrate these into pre-and post-activities.

3. Investment in Docent Training

As seen in this research educators' enthusiasm to share information can influence students' interest and learning. The museum should invest in ongoing docent training as the educators' role is crucial on field trips to enhance students' motivation to learn. Apparently, the students from School B remembered more information from their field trips despite a fast-paced Cabin Tour than the students from the other two schools who attended individual presentations. They were able to depict objects and exhibits inside and outside of the museum. The current docent training focuses on history and related stories of the area. Methods appropriate for teaching 7-8 year olds should be made part of the training. Docents should be presented with opportunities to learn from museum, education, and psychology experts the methods best suited to impart learning to young children in informal settings. Educators may identify teachers who are enthusiastic about museums and experiential learning and use their help to train docents. Video-taping presentations to train docents on teaching and learning methods for children can also be explored.

Teachers' Assessment of Field Trips

To serve the teachers and 2nd graders better and to understand the worth of school field trip programs, educators need to have a comprehensive program feedback instrument and assessment plan. The current feedback form asks teachers to rate the overall field trip experiences. Educators should treat developing a comprehensive assessment plan as a priority. They should use resources to have an assessment tool that solicits in-depth feedback and comments from teachers with a limited demand on their time. To have a response rate better than 33% (current estimated response rate), educators need to make sure that all teachers receive the feedback form, fill it out, and return it after the field trips. In addition, an electronic version of the feedback form can make an easy download and/or submission. Appropriate action and reactions to feedback are necessary to complete the

evaluation cycle. Professionals on Museum Education Roundtable listserv suggest using an electronic survey (such as Survey Monkey®) to collect teachers' feedback on school field trips. Educators must find a system to inform teachers of actions taken on feedback. A quarterly/semi-annual newsletter mailed directly to teachers or website postings are suggestions for reporting actions on feedback.

4. Periodic Program Assessments

Researchers developed and piloted a checklist to assess critical thinking facilitation in school programs at several art museums serving children as young as 1st and 2nd graders. During the pilot, participating educators became more cognizant of the role of critical thinking in museum programming. Educators used the checklist to reflect on their teaching practices. Seven skills were recognized as building blocks of critical thinking practices. Implementing the skills of observing, interpreting, evaluating, associating, problem finding, comparing, and flexible thinking may be used to build programs and pre-and post-field trip activities. Researchers recognized educators' role as facilitators of critical thinking to connect young visitors with art and achieve learning outcomes. Recognizing the importance of critical thinking in museum programs, many participants suggested use of the checklist for docent training (Luke et al., 2007). Educators should encourage a culture of thinking and group learning to utilize the social aspect of learning by providing time for discussion at the end of field trips (Ritchhart, 2007).

In addition to the recommendations stated above, educators may tap the resources and expertise of larger area museums (e.g., Denver Art Museum, Children's Museum, etc.). Information from the colleagues at these museums, who are serving multiple school districts and diverse age groups of children, might provide insights to curb some of the challenges.

Engagement translates into learning when the conditions are right (Puchner et al., 2001). If feasible, field trips should be planned when children are studying

the unit so there is time to introduce topics and to reinforce information gained at the museum. Programs at the FCM are hands-on and engaging. Engagement with exhibits and objects increases the likelihood of learning (Piscitelli & Anderson, 2001). Educators need to re-assess their programs in terms of critical thinking skills facilitation, find a tool to assess the museum programming, and make suggested changes.

Recommendations for School Teachers

In this partnership, the teachers are as much a part as the educators. These recommendations are intended to strengthen the partnership and enhance student learning.

1. Direct and Consistent Communication with Educators

Teachers need to have direct communication with educators via phone or email to convey their purposes and desired learning outcomes from field trips. Most teachers rely on parent volunteers or administrative staff to reserve field trips dates and agendas, so they do not talk to the educators directly. Recognizing the importance of a shared purpose in student learning, teachers may ask the people helping organize the field trip to convey more specific information and requirements to the educators.

Teachers' constructive and candid feedback including strengths and weaknesses can help educators assess the field trips programs. Completing the feedback forms at the conclusion of field trips will be a good start. By taking part in the museum's activities such as teacher advisory boards, seminars, lectures, and open houses, teachers can understand the museum's mission, be aware of the available resources, and have dialogue with educators. Educators may share the existing pre-and post-field trip activities with teachers and seek input to design new activities.

2. Better Learning Opportunities for Children

Teachers need to provide opportunities for children and facilitate discussions to reinforce field trip experiences and build further learning. Planning field trips while studying the unit help children connect with the museum better. They need to help children experience the museum as a place in addition to what is displayed at the museum. To make longer lasting impressions on children, museum experiences should not end with field trips (Anderson, Kisiel, & Storksdieck, 2006). Teachers should re-visit museum experiences in class using post-field trip activities. Similar to the recommendations to educators, teachers need to provide opportunities for critical thinking and encourage a culture of thinking in classrooms. Teachers sharing responsibility of students' learning with educators can fill the gap between formal and informal education and make the partnership a true collaboration.

3. Connect Field Trip to Other Subjects

It is obvious from children's written work that they picked up new vocabulary at the museum with or without conscious intent of the educators. Teachers should develop classroom writing activities to explain the meanings and to encourage use of new words introduced on field trips. As this is the age when children learn and strengthen language skills, teachers can make the new words part of science, English, and language arts to reinforce the museum experiences. Teachers should support the museum's mission in classrooms as much as educators support theirs by supplementing curriculum. Strengthening the partnership with educators and advancing it to collaboration or integration levels will influence learning among students, the ultimate beneficiaries of this relationship.

Limitations

With the challenges that educators and teachers face in integrating the field trips, it may be possible to implement one or two recommendations at a time. Prioritizing these recommendations and implementing those that seem doable within

availability of resources might enhance programming outcomes. Investing resources in the museum website to provide an informational and direct link between educators and teachers might be a start as both partners are dealing with challenges of time.

It is noted that teachers' efforts to prepare students before and to reinforce museum experiences after the field trip were not determined. Extraneous variables such as deviations of teachers' instructions or time allotted for the post-field trip activity could have influenced children's written and drawn responses and thus, impacted the results. Conducting post-field trip activities in a controlled classroom environment should be used in subsequent studies. Classroom observations of teachers' teaching local history similar to the observations of educators' presentations, can add depth to a study similar to this.

Findings of the study are limited to the partnership of one local history museum serving one district's elementary schools. Examining the partnerships of other small to mid-sized museums in various locations with their respective school districts and teachers for field trips would further this inquiry.

Implications

The study has implications for many museums offering field trips to school-age children to fulfill educational responsibilities and missions. Findings are especially applicable to smaller museums trying to connect programs with local history and elementary social studies standards. There are implications for teachers who understand the dynamics of informal learning and want students to enjoy and experience objects and exhibits in addition to conceptual gains.

Educators think teaching history and chronologies of events are hard concepts for 7-8 year olds. Hands-on field trip programs are engaging with primary focus on stories of the past and contrasting life styles of the past. Findings suggest substantial gains from field trips which encompass and support place-based learning proposed by Gruenewald (2003). Educators need to know that their teaching styles

impacts learning on field trips. Allowing children to explore and experience the novel museum setting result in long-term memories. Teachers need to share responsibility by reinforcing field trips experiences in classrooms.

A unified purpose to achieve student learning encompassing affective and conceptual domains, sharing information and resources, and an on-going long-term relationship--are aspects of higher levels of partnerships (Wilkinson, 2008). Consistent and direct communication with teachers and contributions to classroom teaching are important for educators if a truly integrated partnership between museums and local school districts is sought. Educators can provide assistance to teachers with pre-and post-field trip activities to establish learning before and to reinforce museum experiences after the field trips. Having teachers involved with museums' programming decisions can help bridge the gap between formal and informal education. Teachers' feedback on students' gains can help educators modify programs.

Educators, even with limited resources, need to understand the usefulness of comprehensive assessment of field trips and periodic evaluation of their programming using research based tools. Educators should objectively and systematically review the feedback from teachers and students and take actions if needed. Positive feedback from teachers and students suggest satisfaction, but does not necessarily address learning from field trips (Cox-Peterson et al., 2003). In-depth assessments are absolute musts to find worth of museum programming for all stakeholders.

Schneider suggests that students should be provided complex learning opportunities if teachers want them to grasp, retain, and apply concepts learned at the museum (2003). If students are receiving well-matched curriculum experiences at museums, teachers need to make sure that those are reinforced in classrooms. The 2nd grade classroom is a good place to instill critical thinking skills and build

learning as social endeavors. Seven to eight year olds are cognitively ready to develop logic and see situations from other people's viewpoints without judging it as right or wrong (Sigel, 1968).

Teaching local history is different than teaching science. Science museums can teach facts and concepts and assess learning by testing and comparing pre-and post-activity scores. Engaging students is easier by incorporating inquiry-based hands-on science experiments than conveying local history with cabins and gallery tours with stories and legends of the past. Participant teachers suggested impersonation of historical characters (Auntie Stone and Antoine Janis), which may be difficult with limited docent availability. Local history museums with more personnel and resources may consider having docents presenting programs in first person or making appearance dressed as local legends. Adding interactive and lively living history presentations can add interest to museum programming.

Understanding demographics of audiences is necessary for educators. Bilingual schools groups need interpreters to translate presentations. In the absence of the bilingual presentations, the teachers' role become crucial making sure that students comprehend what is said, shown, or written on labels at the museum. It would help the teachers and students if the exhibits' labels and signs were written in multiple languages. Teachers need to proactively communicate their expectations and desired outcomes to educators ahead of the field trips. As equal partners educators and teachers need to have a unified purpose that can be supported at each institution with collaborated efforts to optimize desired learning outcomes from field trips.

Suggestions for Research

Findings of this study support research on field trip programs promoting critical thinking among students and place-based learning in museums (Gruenewald, 2003; Leach, 2007; Luke et al., 2007). Students' learning gains are functions of

educators' and teachers' facilitation of field trips as well connection with novel places. Educators credit the experience and hands-on aspects, and teachers credit their classroom teaching and its connection as contributing factors for learning on field trips. What about the museum and its artifacts stimulate curiosity and motivate children to build memories of objects that were not part of the orchestrated presentations? What inspires some curious and motivated students on one-short field trip to return with family and friends? Students' work from post-field trip activities needs to be analyzed critically to explain place-based gains. Examination of children's perceptions of their 2nd grade field trips before their participation in the 4th grade *Rendezvous* would provide insights of their long-term learning gains.

Probing the teachers' questionnaire responses through focus groups or interviews would be valuable to understand their perceptions on museum experiences. The teachers who believe in broader learning domains of museum education and reinforce the field trip experiences in school can share their views on building students' experiences of the museum as a place for learning. It will be worthwhile to examine the partnership of the museum with schools once the merger with Discovery Science Center and move to the new facility take place. It will be interesting to explore the educators' relationship with school teachers through programs which will combine history, social sciences, and art.

Conclusions

This phenomenological research was launched to explain the partnership between the Fort Collins Museum and Poudre School District elementary schools through educators' and teachers' perceptions and processes. Findings suggest coordination between educators' and teachers' efforts to impart learning on 2nd grade field trips. The learning from short one-time field trips validated conceptual and affective gains resulting from educators' effective presentations and teachers' efforts to reinforce field trips. Findings shed light on children's connectedness to the place

registering interesting facts and information that formally and informally were and were not part of their field trips presentations.

Having teachers as partners in schools is a common phenomenon for museums around the U.S. and worldwide. It represents the most common type of partnership between museums and schools. As representatives of the two educational institutions, museum educators and school teachers join hands to benefit children with conceptual and lifelong learning gains. Researchers from education, museums, and related fields have validated the valuable experiences museums and their educators, exhibits, and objects present to children as young as 1st and 2nd graders. Among children, learning is built as a social phenomena and social discourse which act as scaffoldings for future learning and experiences (Burchenal & Grohe, 2007; Felton & Kuhn, 2007).

The ultimate underlying outcome of providing educational experiences and learning to children prevails over the differences between educators' and teachers' purposes. Enhanced communication for a unified and integrated purpose and processes is the key to reach collaborated and integrated partnership levels (Wilkinson, 2008). I close this research with a question for educators, teachers, and museum researchers: Whether the outcome from field trips should be labeled as *learning* or *experience*? Or can we combine the two and call it a *learning experience* or *experiential learning*? Before initiating any school programs, museum educators and school teachers must decide what they want to achieve as an outcome for children. With a unified purpose for school field trips, educators' and teachers' efforts may blend *learning experience* and *experiential learning* for the 2nd graders and capitalize on both *learning* and *experiences* from museum field trips.

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APPENDIXES

A: Fort Collins Museum Picture Profile

- Picture 1: Fort Collins Museum
- Picture 2: Antoine Janis Cabin
- Picture 3: Auntie Stone Cabin
- Picture 4: Franz-Smith Homestead
- Picture 5: The Upper Boxelder School

B: Second Grade History Standards

C: Letters of Cooperation/Approval

1. Letter of Cooperation: Fort Collins Museum
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E: Teachers' Field Trip Survey Form

F: Children's Post Field Trip Activity Work

APPENDIX A
The Fort Collins Museum Picture Profile

The Fort Collins Museum
(Established 1941)



Picture 1: The Museum



Picture 2: Antoine Janis Cabin (c. 1859)



Picture 3: Auntie Stone House (c. 1864)



Picture 4: Franz-Smith Homestead (c. 1882)



Picture 5: The Upper Boxelder One-room School (1905)

APPENDIX B

Poudre School District History Standards for 2nd Grade

Poudre School District History Standards for Second Grade

POUDRE SCHOOL DISTRICT HISTORY STANDARDS AND BENCHMARKS GRADE 2

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Grade 2

Standard 1: Chronological Organization

Understand the chronological organization of history and know how to organize events and people into major eras to identify and explain historical relationships

RATIONALE:

Chronological thinking is at the very heart of historical reasoning. It provides the framework for organizing historical thought, for determining the order in time of historical developments, for determining how long they lasted, and for examining the various relationships among historical events. It also provides students with a sense of their past which is necessary for them to understand the present and see possibilities for the future.

1.1 Benchmark: Chronology

Know the general chronological order of events and people in history

Indicators:

- o Distinguish between past, present, and future time
- o Know the general chronological order of significant people in the history of the community (e.g., pioneer and early settlers)
- o Recognize the general chronological order of significant events in the history of the community

1.2 Benchmark: Chronological organization

Use chronology to organize historical events and people

Indicators:

- o Create an historical narrative, (e.g., student, family, school, or community history)
- o Create a brief oral narrative describing, in sequence, a past event
- o Construct a “picture timeline” using a variety of methods (e.g., photos from home, drawing pictures)
- o Know how to use a calendar (e.g., days, weeks, months, years)

1.3 Benchmark: Historical relationships

Use chronology to examine and explain historical relationships

Indicators:

- o Understand how local communities have changed (e.g., rural, urban, and suburban)
- o Understand demographic changes in local communities

POUDRE SCHOOL DISTRICT HISTORY STANDARDS AND BENCHMARKS GRADE 2

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Standard 2: Historical Inquiry

Know how to use the processes and resources of historical inquiry

RATIONALE:

The study of history requires obtaining and deriving meaning from historical information. It is essential that students of history be able to use the processes of historical inquiry to formulate historical questions, identify patterns of events, analyze cause-and-effect relationships, and evaluate historical arguments in order to make usable conclusions. In addition, the skills needed for evaluating historical arguments are fundamental for understanding current social issues and policy.

2.1 Benchmark: Formulation of questions and analysis of data

Formulate questions regarding the past, and how to obtain and analyze historical data

Indicators:

- o Pose and answer questions about the past
- o Gather historical data from multiple sources (e.g., oral histories, interviews, diaries, letters, newspapers, literature, speeches, texts, maps, photographs, art works, and available technology)

2.2 Benchmark: Source interpretation

Interpret and evaluate primary and secondary sources of historical information

Indicators:

- o Gather information about the past from sources (e.g., reports, maps, photographs, letters, drawings, diaries, oral histories, artifacts, interviews, and legal documents)
- o Read geographic symbols, map scales, and directional indicators in order to obtain information from historical maps
- o Identify the main idea in a source of historical information

2.3 Benchmark: Knowledge of the past

Apply knowledge of the past to analyze present-day issues and events

Indicators:

- o Understand the similarities and differences between students' daily lives and those of their parents and grandparents
- o Understand connections between the past and present in local communities
- o Know the history and daily life of the people who settled in local communities

POUDRE SCHOOL DISTRICT

HISTORY STANDARDS AND BENCHMARKS

GRADE 2

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Standard 3: Diverse Societies

Understand that societies are diverse and have changed over time

RATIONALE:

An understanding of the history of societies is indispensable to an understanding of the rest of history and to the understanding by individual students of their roles in the societies in which they live. Students need to understand the interactions that led to the diversity of societies and family and kinship groupings. They need to understand how

contacts and exchanges between and among individuals, peoples, and cultures since earliest times have affected societies throughout history.

3.1 Benchmark: Various societies

Know how various societies were affected by contacts and exchanges among diverse peoples

Indicators:

- o Know various holidays and celebrations in different cultures
- o Know the cultural heritage evident in local communities (e.g., restaurants, stores)
- o Describe the history, interactions, and contributions of the various peoples and cultures that have lived in or migrated to local communities

3.2 Benchmark: Social organization

Understand the history of social organization in various societies

Indicators:

- o Understand ways that people in communities have helped and supported each other
- o Identify reasons for living in communities
- o Describe important components of the cultural heritage of local communities

POUDRE SCHOOL DISTRICT

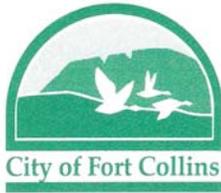
HISTORY STANDARDS AND BENCHMARKS

GRADE 2

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APPENDIX C
Letters of Cooperation/Approval

C – 1 Letter of Cooperation: Fort Collins Museum



Cultural, Library and Recreational Services
Fort Collins Museum

December 6, 2007

Anuradha Bhatia
Doctoral Student
School of Education
Colorado State University
Fort Collins, CO 80523

Dear Ms. Bhatia:

The Fort Collins Museum grants you permission to conduct research for your dissertation titled *Museum and School Partnership for Learning on Field Trips*. You are welcome to study our school programs offered as field trips to second graders of PSD.

Your presentation of the research intent on December 6, 2007 helped us understand the scope and the implications this study may have for the museum and for our partnership with PSD elementary schools. I understand the Museum educators and docents' participation in the research is voluntary and they may withdraw at any time. I am aware that the study follows guidelines established by the Human Research Committee at Colorado State University and Museum participants' identity, names, or job titles will not be associated with their response.

By granting permission to conduct this study, the Museum agrees to provide access to the following:

- a) Interviews with the Fort Collins Museum education staff and volunteer docents.
- b) Digital photography of educational materials (including the restored cabins) for this research and related publications.
- c) Observations of the school field trip presentations to assess educators' teaching practices.
- d) Past and current scheduling records of the school field trips.

The Museum's staff would like to offer our support and cooperation for your study and look forward to have you collect the data between February and June 2008.

Sincerely,

Cheryl Donaldson
Director

**C – 2 Letter of Research Approval: Poudre School District
(via campus email)**

Anu: Please consider this email as formal approval for you to conduct research within Poudre School District as follows, based on your application materials dated November 2, 2007:

Research project name: "Museum and School Partnership for Learning on Field Trips"

Date of project: Between February 2008 and May 2008. (If additional time is needed to complete the study, please notify PSD via email).

I would like to add two conditions:

1. That you supply the R&D Center with a copy of the summary document produced at the end of the study, and
2. That you also supply a copy any article prepared for publication based on the study.

Please feel free to use this email in your correspondent with PSD schools regarding this research project.

Thank you for considering Poudre School District as a research partner. Please feel free to contact me if you have any questions.

James J. Dugan, Ph.D., Co-Director
Research and Development Center for the Advancement of Student Learning
222 W. Laurel
Fort Collins, CO 80521
Office: 970-491-3814 or 970-491-3179
Cell: 970-217-3554
email: jamesd@psdschools.org <mailto:jamesd@psdschools.org> or
jjdugan@cahs.colostate.edu
<mailto:jjdugan@cahs.colostate.edu>

**C – 3 Letter of Research Approval: Human Research Committee
(Now Research Integrity & Compliance Review Office [RICRO])**

Your project, "Museum and School Partnership for Learning on Field Trips," has been approved as of February 26, 2008. The approval is for a maximum of 10 museum educators and a maximum of 100 school teachers. The approved cover letters, scripts and consent must be used for the appropriate group. The IRB ID is 08-039H.

The approval is being processed and will be sent in the next several days.

THE HRC IS NOW KNOWN AS THE IRB

(INSTITUTIONAL REVIEW BOARD)

Janell Barker

IRB Administrator

Research Integrity & Compliance Review Office

321 General Services Building

Colorado State University

Fort Collins, CO 80523-2011

Janell.Barker@Research.Colostate.edu

970-491-1655

FAX: 970-491-2293

<http://ricro.research.colostate.edu>

APPENDIX D

Instruments

D - 2 Educators' Interview Schedule

Purpose

- **What purpose(s) do PSD school field trips for second graders serve for the Fort Collins Museum (FCM)?**
 - What are the contributing factors in deciding the purpose of these field trips? (support to the FCM mission, utility of the collections and exhibits, service to community, etc.)
 - Who is involved in deciding the purpose of the field trips?
 - If teachers are involved in deciding the purpose, what is their participation?
- **What outcomes do you expect from a second grade school field trip?**
 - How do these outcomes compare with teachers' reasons to bring their second graders to the FCM on field trips?
 - How do these outcomes compare with teachers' expectations from field trips?

Preparation

- **What preparation do you do to deliver field trips to school children?**
 - Who is involved in the preparation of school field trips?
 - What communication/participation do you expect from teachers before the field trips?
 - How does the teachers' input on curricular needs prior to the trip help you customize the field trip?
 - In putting together the field trip presentations, what do you consider about student learning?
 - What is your contribution in preparing students and their teachers for the field trip to the FCM?

Implementation

- **What do you want children to gain from these field trip presentations?**
 - How do you assess children's knowledge for the information you cover during field trips?
 - How do you balance covering the content of the lesson, doing an activity, and involving children interactively with the exhibit?
 - How do you alter/modify your teaching to the needs of different second grade school groups?

- Is there an example of how you altered/modified lessons during field trips as per students' needs? Why did you modify your teaching?
- **In terms of preparation at the school, what are your expectations from the children during the field trip?**
 - Participation in the topic discussion
 - Participation in activity
 - Attentive listeners
 - Interactions with: peers, FCM personnel, teachers/chaperones, and museum objects
 - Filling out worksheets provided by the Museum
- **What role do teachers/chaperones play during the field trip?**
 - From your perspective, who is in charge of children once you start a field trip?
 - How do teachers contribute in doing presentations during the school field trips?
- **On average, how much time is required to cover a lesson and activities for each exhibit keeping children's age and grade level in mind?**
 - What all do you cover in.....minutes?
 - Do you thinkminutes are appropriately allocated for Field trip presentations?
 - From the content, activity, and interaction with children, which one you think is most important and why?

Assessment

- **From your perspective, what are the learning gains for an average second grader from the FCM field trip? How do you assess these gains/outcomes? (Planned activities, discussions, etc.).**
 - Which exhibit (e.g., Boxelder one-room school house) do children get most involved with? Why?
 - Which activity (e.g., rendezvous) do children get most involved with? Why?
 - How do you assess if students' needs are met on the FCM field trips?
 - How do you assess if teachers' expectations are met on the field trips?
 - What feedback have you received from teachers at the conclusion/after the field trips?

- How do you respond to teachers' feedback? Who is responsible for taking actions (follow-ups) to feedback?
- **Do you supply any post field trip activities to school teachers?**
 - What post field trip activities for the classroom would be useful to assess learning from the museum field trip?
 - Who do you think should be responsible for providing post visit trip activities? Teachers or FCM personnel? Why?

Limitations

- **What are the limitations in delivery of school field trips?**
 - Which limitations are from within the Museum? (e.g., museum board, administrations, logistics, etc.)
 - Which limitations are from outside? (e.g., school districts, school administrations, teachers, children, parents, logistics, etc.)
 - What actions could be taken to resolve these limitations?
 - Can all limitations get resolved? What limitations generally get resolved?
- **How do you communicate the limitations of planning and processing of the school field trips with teachers/schools?**
 - How can the schools/district help resolve these limitations?

Best Practice

- **What is your perception of an ideal school field trip?**
 - What about the FCM field trips make a unique experience for second graders and their teachers?
 - What actions on FCM's part may improve the school field trips for student learning? [e.g., Field trips for other elementary grades (3 – 6) or connection with other subjects]
 - What actions could schools take to improve the FCM field trips for student learning?
 - What would you like to change to establish an ideal partnership with the area elementary schools and teachers?

- **What future do you see for the FCM field trips for school children?**
 - What considerations do you have regarding designing/offering museum programs to other age groups (older children such as upper elementary, teens, and youth)?
 - What considerations do you have regarding designing/offering museum programs to connect different subject areas (such as English, art, and science)?
 - What considerations do you have regarding offering museum programs to schools as outreach?
 - What considerations do you have regarding training pre-service and in-service teachers about museum programs and resources?

D – 3 Teachers' Questionnaire

SOE Letterhead

Date.....

Dear.....,

Through this questionnaire, I want to understand your experiences of the FCM school field trips. Field trips are common for all grades in schools. Area museums offer programs designed to aid classroom teaching. The field trips offered by the Fort Collins Museum (FCM) connect with the social studies curriculum for the second graders. These field trips give museum educators and school teachers a reason to develop partnerships for student learning.

Your opinions are important whether or not you have used the FCM school programs. This questionnaire is an important research component of my dissertation titled *Museum and School Partnership for Learning on Field Trips*. Findings will provide feedback to the FCM and PSD elementary schools for mutual benefits.

Completion and return of this questionnaire are voluntary and constitute your consent to participate in this study. Your responses will remain anonymous. This research follows the guidelines established by the Human Research Committee at Colorado State University. If you have any questions about your rights as a volunteer in this research, contact Janell Barker, Senior Coordinator of Research, Integrity, and Compliance Review Office at Colorado State University at (970) 491 1655.

Please complete the questionnaire by Use the enclosed envelope to return the completed questionnaire to your school's Office Manager/front desk for my collection of these on

If you have any questions, please contact me via email (anubht@yahoo.com) or call (970) 282 9887. I would be happy to answer your queries.

Sincerely,

Anu Bhatia
PhD Candidate

Dr. Carole J. Makela, PhD
Professor

Museum and School Partnership for Learning on Field Trips

Help us understand your use of Fort Collins Museum (FCM) field trips in teaching local history, a unit in the second grade social studies curriculum. Your perceptions of the FCM school programs and student learning from these field trips are important in the partnership you share with the Museum. Findings will provide feedback and suggestions to strengthen the partnership between the FCM and schools for mutual benefit, thus influencing student learning on field trips.



The questionnaire will require 20 – 25 minutes of your time. If you provide contact information with the completed questionnaire, your name will be entered for the drawing for one of three \$25.00 gift cards to a local restaurant as a token of appreciation for your participation. Your name will be entered in the drawing when the researcher receives the completed questionnaire. The drawing of the gift cards will take place on March 10, 2008. You will be contacted if you are one of the gift card recipients.

Please respond to the following questions the best you can. Please **read the questions carefully** and **follow the instructions**. Your name or school will not be associated with your responses. **To enter in the gift card drawing and/or to receive a summary of results, please fill out form(s) on page 10 of the questionnaire.**

*** General Information ***

1. How many years have you been teaching at PSD?
_____ Year(s)
 2. How many years have you been teaching second grade classes?
_____ Year(s)
 3. Each year how many field trips do you usually take your second grade class on?
(Include field trips to other sites than museums; circle the number that applies)
- 0 1 2 3 4 5 6 or more**

*** Your own field trip experiences ***

4. Do you recall a trip that you took to a museum while you were in elementary school? (Circle one that applies)
a) Yes (go to Q. 5) b) No (go to Q. 6) c) Do not recall (go to Q. 6)
5. If yes, what memories do you have of this museum trip. (List things that you remember from your trip[s])
a) _____
b) _____
c) _____

*** Trips to local history museums ***

6. When you think of a local history museum field trip for self or students, what word comes to your mind? (Use one word)

 7. What experience do you expect for your students when you take them to the Fort Collins Museum (FCM)? (Use one word)

 8. During the year(s) you have been teaching second grade, how many times did you take your students to the FCM for field trips? (Circle one choice)
- 0 1 2 3 4 5 6 or more**

If you selected (0) on Q.8 (did not take a class to the FCM), go to the blue page and complete the short questionnaire on page 9. If you circled 1, 2 or more, continue to Q.9 on page 3.

*** Planning for the Fort Collins Museum Field Trip ***

9. **A)** Which of the following best describe the **reason(s)** for taking your second grade class on a field trip to the Fort Collins Museum? (Check all that apply)

I plan the FCM trips for my students for....

- a) connection to curriculum-----
- b) experience of a historic place-----
- c) lifelong learning gains-----
- d) exposure to a novel place-----
- e) change from routine school day -----
- f) enjoyment -----
- g) motivational experience-----
- h) other _____

B) From the factors listed in **9. A)**, select the top two (1 & 2) where 1 means the most important reason to you. (List the phrases from 9 A)

- 1. _____
- 2. _____

10. Which of the following outcome(s) do you **expect** from a FCM field trip for your students? (Check all of your expected outcomes)

For my students I expect

- a. conceptual knowledge gain -----
- b. a positive experience-----
- c. a long lasting experience -----
- d. enjoyment -----
- e. learning and fun combined -----
- f. motivational experience-----
- g. building memories-----
- h. no particular outcome-----
- i. Other _____

11. How do the FCM personnel help you **plan** a FCM field trip?

12. What do you communicate as the **purpose** of your field trip to the FCM personnel? (Please explain)

13. What factor(s) influence your **decision to plan** a FCM field trip? (Check all that apply)

Factors influencing my plans to take a FCM field trip are...

- a) connection to curriculum-----
- b) need to meet standards-----
- c) parental support -----
- d) parental permission -----
- e) administrative concerns-----
- f) children's safety -----
- g) parents' help as chaperones -----
- h) timing of the trip -----
- i) familiarity with Museum -----
program
- j) my personal training to capitalize -----
on the field trip/community resources
- k) other (Please explain) _____

*** Preparation for the Museum Field Trip ***

14. Which of the following pre-visit classroom activities do you use to **prepare** your second graders for a FCM field trip? (Check all that apply)

Students prepare for the FCM trips using....

- a) class discussion-----
- b) class work (written or drawn) -----
- c) slide show/film -----
- d) no pre-visit activity-----
- e) Other, describe _____

15. How do the FCM personnel contribute to your choice of pre-visit classroom activity (ies)?

16. From your perspective, who has the primary responsibility for each of FCM field trip components? (Please check one for each line.)

| Field trip components... | Me and/or <u>other teachers</u> | School <u>Administration</u> | The FCM <u>Personnel</u> |
|-----------------------------------|------------------------------------|---------------------------------|-----------------------------|
| a) Decision to visit FCM ----- | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Date and time for visit ----- | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Curriculum fit ----- | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) School permission ----- | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) Parent permission ----- | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f) Transportation decisions ----- | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g) Pre-trip class activity ----- | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h) Field trip agenda ----- | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| i) Post-trip class activity ----- | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| j) Field trip assessment ----- | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| k) Other, specify _____ | | | |

*** At The Museum ***

17. How much time (in hours) did your students spend at the FCM on your most recent field trip? (Circle the time that applies)

At the FCM we spent...
1 2 3 4 Other.....hours

18. From your perspective, when at the FCM, who is responsible for children on the field trip? (Check all that apply)

- a) You -----
- b) You and other teacher(s) -----
- c) You and parent chaperone(s) -----
- d) You and the FCM personnel -----
- e) FCM personnel -----
- f) Children themselves -----
- g) Other, specify _____

19. What student interactions (e.g., asking questions or work together) did you encourage during the FCM field trip? (Check all that apply)

Students were encouraged to interact with...

- a) peers -----
- b) FCM personnel -----
- c) teachers -----
- d) chaperones -----
- e) museum objects -----
- f) interactions are discouraged -----

20. What activities did your students do during the FCM field trip? (Check all that apply)

Students usually...

- a) fill out worksheets from school -----
- b) fill out worksheets from FCM -----
- c) discuss with peers -----
- d) discuss with teachers -----
- e) have questions for FCM personnel -----
- f) have no activity -----
- g) Other _____

21. On your most recent trip to the FCM, which of the exhibit(s) and activities were of **most interest** to your students? (Check one exhibit and one activity)

Students were most interested in...

- | Exhibit ↓ | Activity ↓ |
|--|---|
| a) Boxelder one-room school ----- | a) School Day in 1905 ---- <input type="checkbox"/> |
| b) Antoine Janis’s cabin ----- <input type="checkbox"/> | b) Rendezvous ----- <input type="checkbox"/> |
| c) Auntie Stone’s cabin ----- <input type="checkbox"/> | c) Build the Fort ----- <input type="checkbox"/> |
| d) Franz-Smith homestead ----- <input type="checkbox"/> | d) Farmers in Fort Collins <input type="checkbox"/> |
| e) Folsom Man ----- <input type="checkbox"/> | |
| f) The permanent exhibit in the ----- <input type="checkbox"/> | e) Name the Street ----- <input type="checkbox"/> |
| museum gallery | |
| g) Entire museum and the courtyard - <input type="checkbox"/> | |
| h) Other, describe _____ | |
| _____ | |

22. What do you think are the reasons for students' interest in a particular exhibit and activity? (Please explain)

*** After the Museum Field Trip ***

23. Which of the following show success of your most recent FCM field trip? (Check all that apply)

The successful aspects of our most recent FCM field trip were...

- a) conceptual knowledge gain -----
- b) a positive experience-----
- c) enjoyment -----
- d) learning with enjoyment -----
- e) enhanced motivation in learning -----
- f) enhanced curiosity for information -----
- g) coordination with FCM personnel -----
- h) learning local history -----
- i) appreciation for historic sites -----
- j) Other _____

24. What methods did you use to assess students' learning from the FCM field trip? (Check all that apply)

To assess learning from the FCM trip, I use...

- a) class discussion-----
- b) drawing activity -----
- c) writing activity-----
- d) class presentation -----
- e) group activity (skit, project)-----
- f) FCM developed activity-----
- g) no activity/effort -----
- h) Other _____

25. What do you think contributed most to student learning on the FCM field trips? (Please explain)

26. What are your major challenges in going on a FCM field trip for your second grade class? (Check all that apply)

- | | | | |
|---------------------------------|--------------------------|------------------------------|--------------------------|
| Time allocation | <input type="checkbox"/> | Consent slips | <input type="checkbox"/> |
| Curriculum connection | <input type="checkbox"/> | Administration support | <input type="checkbox"/> |
| Pre-visit activity | <input type="checkbox"/> | Post-visit activity | <input type="checkbox"/> |
| Funding | <input type="checkbox"/> | Transportation | <input type="checkbox"/> |
| Lack of parent volunteers | <input type="checkbox"/> | Learning assessment..... | <input type="checkbox"/> |
- Other, explain _____

*** Feedback on the Museum Field Trip ***

27. Did the FCM personnel provide feedback forms to you for post-visit assessment of the field trips? (Check one)

Yes

No

28. What comments/changes did you suggest to improve student learning to the FCM personnel after the Museum field trip? (Please describe)

29. How did you communicate your comments/changes to the FCM personnel? (Circle one that applies)

- Written letter** **E-mail** **Phone** **Other** _____

30. What actions did the FCM personnel take in response to your comments/changes? (Please describe)

31. **Share some ideas that would enhance and/or add to the FCM's educational programs, whether for students or for teachers.**

Thanks for taking time to respond to this questionnaire!

D – 4 Short Questionnaire for Non-Users

If you have not taken your second graders to the Fort Collins Museum (FCM) for school field trips, I would like to know about your methods to supplement the local history unit of the social studies curriculum.

Please respond to the following questions. Read the questions carefully and answer the best you can.

1. What teaching methods do you use to fulfill the local history standards in the social studies curriculum?

2. Which classroom activities do you use to enrich social studies curriculum to foster student learning?

3. Which historic and learning sites other than the FCM do you use for field trips for your second graders to supplement social studies curriculum?

4. What are the reasons for not going to the FCM for school field trips to supplement your social studies curriculum?

Thanks for taking time to respond to this questionnaire!

D – 5 Observation Checklist

Tour.....

Educator/Docent

Date.....

Start time.....

End Time.....

| Teaching Practices | | Notes |
|---|---|-------------------------|
| Greeting | <p>Did the educator...</p> <ul style="list-style-type: none"> ▪ meet children at the Fort Collins Museum gate ▪ welcome children again in(out)side the cabin ▪ introduce self; exchange pleasantries? | <hr/> <hr/> <hr/> <hr/> |
| Telling contexts/ background | <ul style="list-style-type: none"> ▪ establish context of the presentation relative to the history of Fort Collins? <ul style="list-style-type: none"> • In the beginning? (B: Before) • During the presentation? (D: During) • At the conclusion of the presentation? (E: End) | <hr/> <hr/> <hr/> <hr/> |
| Check background knowledge | <ul style="list-style-type: none"> ▪ ask probing questions to understand the knowledge children may have about the cabin or exhibit? <ul style="list-style-type: none"> • In the beginning? (B) • During the presentation? (D) | <hr/> <hr/> |

D – 6 Children’s Post-Field Trip Activity

SOE Letterhead

Date.....

Dear.....,

Today, your second graders took a field trip to the Fort Collins Museum. The field trips presentations at the Museum aim to complement the social studies curriculum for second graders.

To assess the impact of the recent FCM trip, I seek your cooperation to conduct a brief (15–20 minute) post field trip classroom activity with your second graders. I will give you a packet of materials to hand out to your students and you will ask them to express what they learned on the Fort Collins Museum field trip. They may choose to write/draw/both using materials of their preference provided in the packet for this activity. The class should do this post field trip activity preferably within 3 days of the FCM trip. Enclosed are the instructions to conduct the activity. This is an important component of my dissertation titled *Museum and School Partnership for Learning on Field Trips*. This work will be stored as digital files for analysis and a CD can be provided to you upon request. Analysis of students’ work as a post field trip activity will provide information on children’s perspectives of the trip.

You may call (970) 282 9887 or email me at anubht@yahoo.com to arrange the pick-up of your students’ post field trip work. Your name and the school’s will remain confidential. As an appreciation of your time and effort, a Starbucks gift card (\$10) is enclosed with this letter.

Sincerely,

Anu Bhatia
PhD Candidate

Dr. Carole J. Makela, PhD
Professor

Post-Field Trip Activity Instructions

Please follow the guidelines for the post Fort Collins Museum (FCM) field trip activity with your second graders. The students should do this post field trip activity within 3 days of the FCM trip (e.g., if you took a trip on Monday, this activity can be completed in class the same week).

1. Distribute 5" x 8" note cards to your students in the class (one per student). Students may have a second card if they "mess up" their first.
2. Ask your students to write and/or draw **what they learned at their recent museum field trip** using both sides of the card.
3. Students may choose to write their first names if it is a practice to write names on students' class work. Their names will remain **anonymous**.
4. Collect the cards as students complete their work. Allow no more than 15 - 20 minutes of class time for this activity.
5. Call (970) 282 9887) or email (anubht@yahoo.com) Anu Bhatia to arrange pick-up of the completed students' work. You may keep the other materials of the packet for the classroom.

Note: This research follows the guidelines established by the Human Research Committee at Colorado State University. If you have any questions about your rights as a volunteer in this research, contact Janell Barker, Senior Coordinator of Research, Integrity, and Compliance Review Office at Colorado State University at (970) 491-1655.

This research has also been approved by the Research and Development Center for the Advancement of Student Learning. You may direct your queries to Dr. Jim J. Dugan, the Approving Administrator of Research Requests for PSD at (970) 491-3179.

APPENDIX E
Teachers' Field Trip Survey Form
(From Fort Collins Museum)



**Program Survey
Help us improve!
Tell us what you think!**

| |
|-----------------------------|
| INSTRUCTORS/ACTIVITY |
| 1. _____ |
| 2. _____ |
| 3. _____ |
| 4. _____ |

School/Group Name: _____ Age/Grade _____
 Group Contact's Name _____
 Date of Tour _____ Contact Number _____ Email _____

1. Overall, how would you rate your field trip to the Fort Collins Museum?
 Excellent 1 2 3 4 Poor

2. Did the activities complement your group/school curriculum?
 Very much 1 2 3 4 Not at all

Please tell us which ones did not and list any suggestions.

3. Were the activities engaging?
 Very engaging 1 2 3 4 Not engaging

Comments:

4. Did your volunteer guide(s) present the activities in a way that is suitable for the age level of the students? *Please see the box in the upper right hand corner for the instructors' names.*

Very suitable 1 2 3 4 Not suitable

5. Were your tour guides knowledgeable on the information they were presenting?
 Very knowledgeable 1 2 3 4 Not knowledgeable

Comments:

6. Will you recommend the Fort Collins Museum field trip to another teacher?
 Yes No

7. How did you learn about school/group programs and tours at the Fort Collins Museum?

May we contact you for further questions? Yes No

APPENDIX F
Children's Post-Field Trip Activity Work

Children's Post Field Trip Activity Work

I learned that they only had four months in school. If you put someone's bare in ink and got cut by the teacher you would be lucky you would sit on the dunce stool and you would have to wear a pointy hat and get laughed at. Antie Stone's cabin has very steep stairs. She was a very working woman here are some things she was a Mid-Wife, she cooked for the soldiers. Also she had a school up stairs and made flower mill. Smith's farming house has a closet you'll see a chest filled with stuff like pictures and toys. Ann + Wagon has a dirt floor he Ax blood hardened the floor and made it shiny. There wasn't much stuff there was only two long benches, three little stools and a table and a bed the bed had little thing called a bed bug that pinched and that is how it got its song.

At the museum there is huge thing called a sugar beet ☹️ And that is how they make sugar. Then I had a scavenger hunt and it was hidden in secret places. In the Rock exhibit there is glow in the dark rocks. And you can actually listen to Rock music. And I saw stuff they used like fulsun points, old fashion guns, etc.

Figure 5: Detailed Description of Field Trip

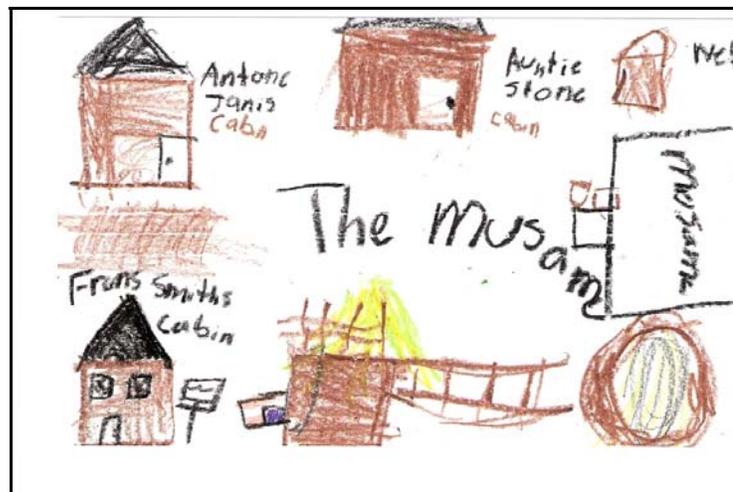


Figure 6: Museum Courtyard Layout

On our field trip to the Fort Collins Museum I enjoyed Auntie Stone's cabin. It was fun to make the map out of blocks. We also got to see the school house it was fun to play school and draw on a slate with a slate pencil. Now I know what school would be like in 1905. I also learned male teachers were called headmaster and that female teachers were called headmistress. After the school house we went to the farm house it was pretty cool to learn about the sugarbeets. It was a lot of fun to throw the fake sugarbeets and pretend (turn over)

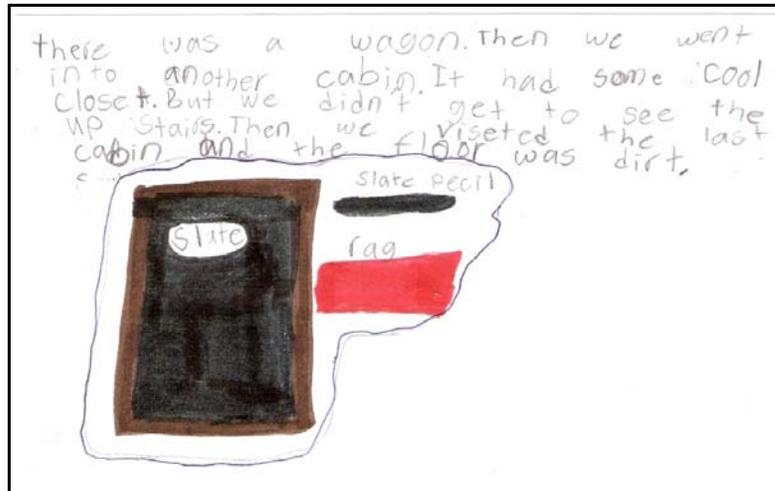


Figure 7: Field Trip Description

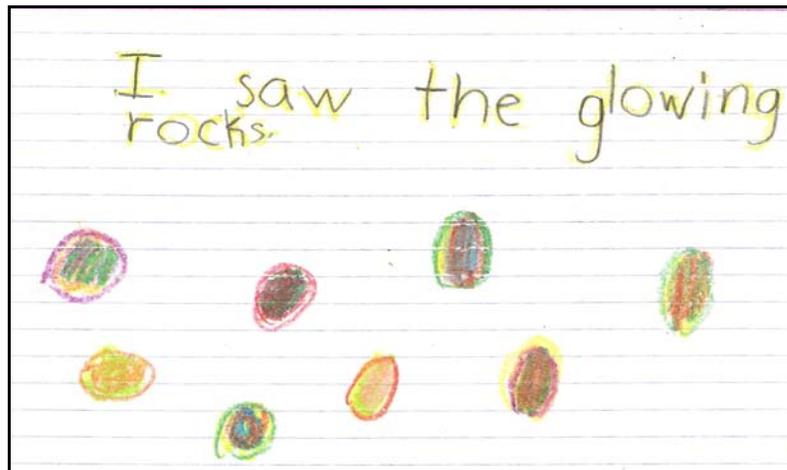


Figure 8: Glow in the Dark Rocks



Figure 9: Wood Burning Stove in Boxelder Schoolhouse

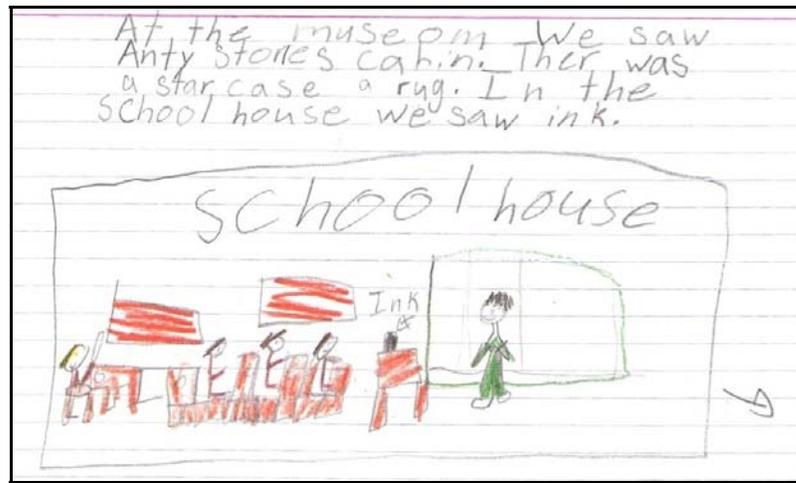


Figure 10: Schoolhouse Depiction

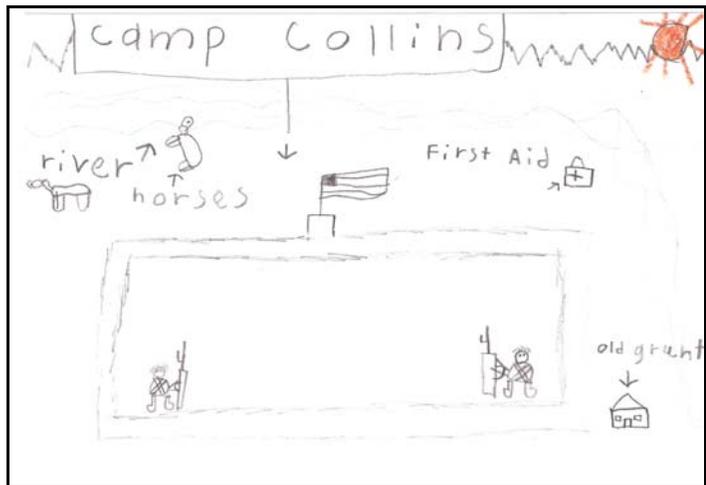


Figure 11: Camp Collins Layout

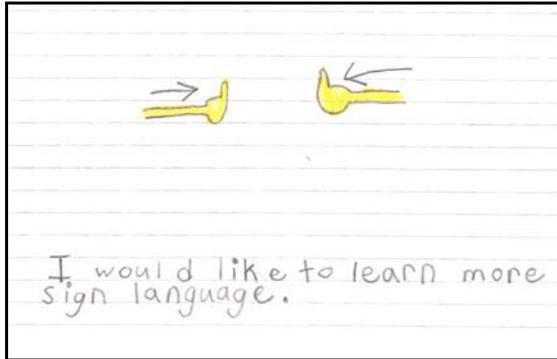


Figure 12: Signing from Antoine Janis's Cabin

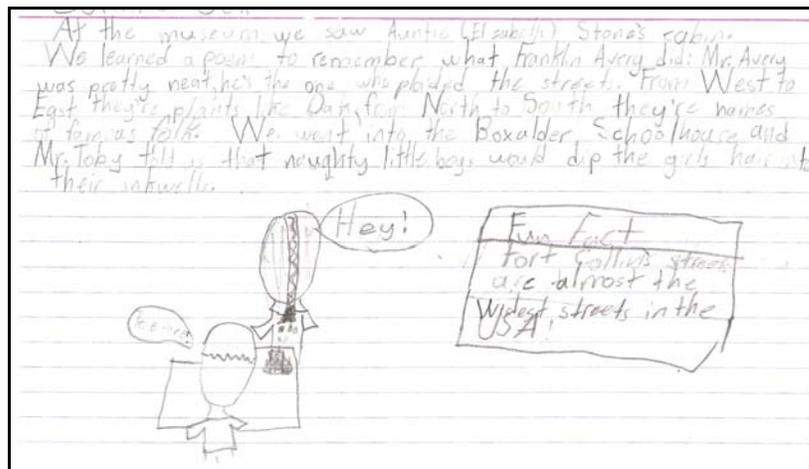


Figure 13: Name the Street Poem and Schoolhouse Prank

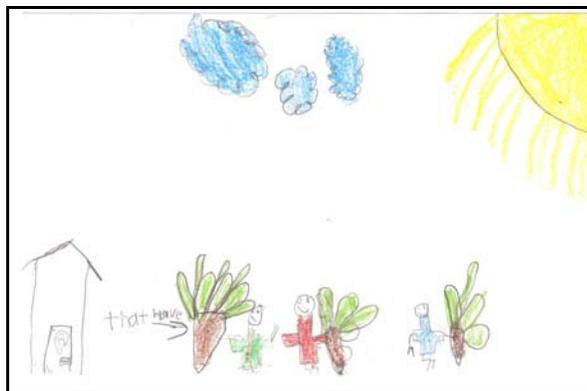


Figure 14: Sugar Beet Farming

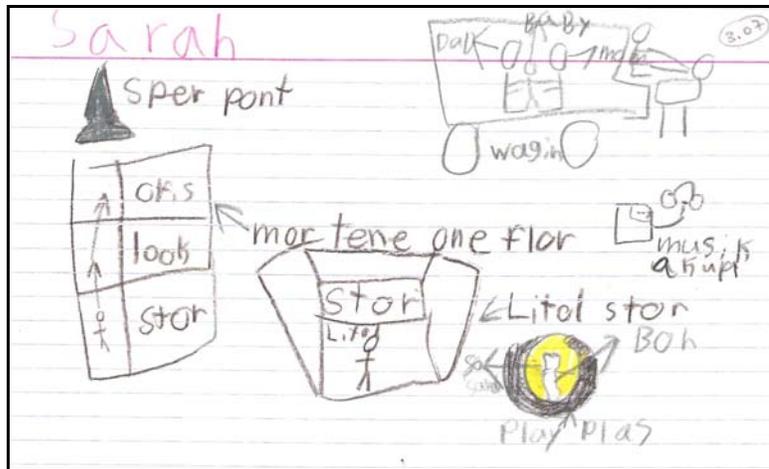


Figure 15: Layout of the Museum

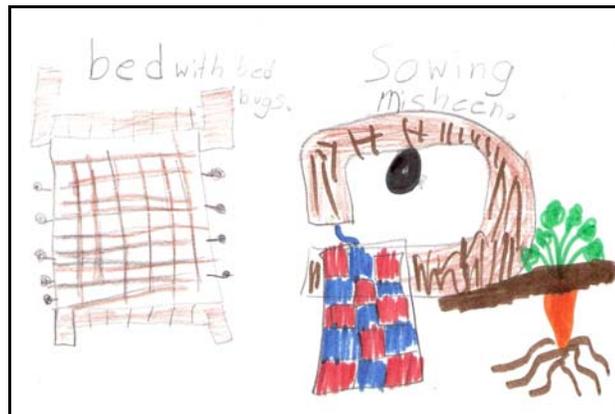


Figure 16: Rope bed, Sewing Machine, and Sugar Beet

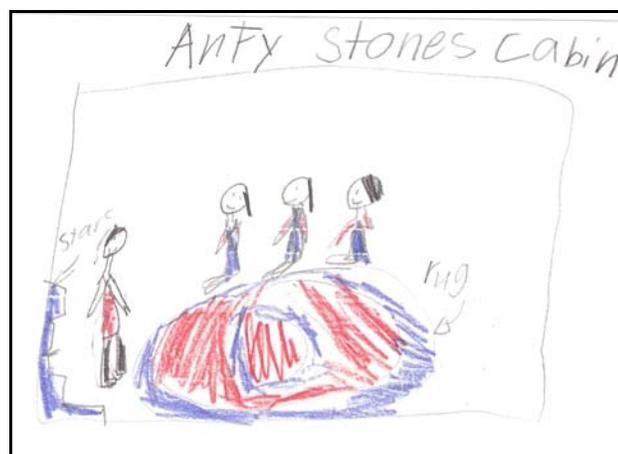


Figure 17: Children Attending Auntie Stone Presentation



Figure 18: Children Working in Sugar Beet Farm

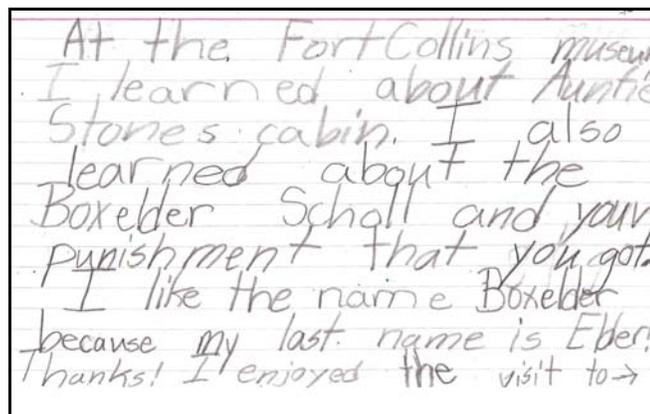


Figure 19: Shared Name with Boxelder Schoolhouse