Learning on Zoo Field Trips: The Interaction of the Agendas and Practices of Students, Teachers, and Zoo Educators

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ABSTRACT: This paper reports on the findings of a case study that investigated the interaction of the agendas and practices of students, teachers, and zoo educators during a class field trip to a zoo. The study reports on findings of the analysis of two case classes of students and their perceptions of their learning experiences during the field trip. The goals, expectations, and perceived outcomes of the trip for students, their classroom teachers, and the zoo educators were elicited through interviews, surveys, student work, and observations. Both cases demonstrated how students placed high value and importance on social interactions with their peers. In addition, classroom teachers’ pedagogical practices and the learning agendas they held for their students had a significant influence on students’ subsequent learning and perceptions of the experience. This was in contrast to the zoo educators’ practices and agendas that appeared not to be significant influences on student learning and perceptions. Implications for field trip planning and implementation are discussed.


INTRODUCTION

Every year, millions of children participate in organized school field trips with their classes. There is a wide range of venues for school trips, such as museums, zoos, and
aquariums. Many of the experiences these venues provide are related to science learning and provide students with experiences that are not possible in a school or classroom context. In New Zealand, as in the United States and other parts of the world, school trips cost school districts and parents money and, critics argue, time away from important classroom learning.

Research has shown that school field trips can be important for enhancing school children's science learning by giving them authentic experiences (Pedretti, 1997), direct contact with real objects, and stimulating their curiosity and interest in the topic (see, e.g., Falk, Koran, & Dierking, 1986; Meredith, Fortner, & Mullins, 1997). However, while there is a growing amount of research on student learning from informal science education sites, no published research studies have considered the interaction of the agendas and practices of students, teachers and zoo educators during a class field trip to a zoo and the students’ point of view from their own voices, rather than researchers’ interpretations of their experiences (Piscitelli & Anderson, 2001). Yet it would seem reasonable that since students are the key beneficiaries and rationale for school-organized field trips, information about students’ perspectives would help educators to understand the nature of interaction between the agendas and practices of students, teachers, and zoo educators for a class field trip to a zoo. Understanding of students’ ideas about the purpose and value of school trips, what they believe they learn from trips, and how these experiences connect to the classroom and to the students’ own lives are lacking from the literature. We (the authors) conjecture that for the field trip endeavor to be highly educationally effective, all stakeholders’ needs should be considered, and the central stakeholders of education are students, and thus, their voices should rightly be heard (Pedretti, Woodrow, & Mayer-Smith, 1998).

This study aimed to gain an understanding about how the students, their teachers, and zoo educators perceive the learning intentions, meanings, and outcomes of school trips to zoological parks. The core objectives of the study were to explore what students thought was the purpose of their trip, what they thought they learned, what they enjoyed and valued about the experience and what they did not like, and how they thought trips could be improved for other students. This study also aimed to understand the influence of their classroom teachers’ and the zoo educators’ learning agendas on students’ perceptions of their trip.

The outcomes of this study provide some important insights to help improve the field of informal science education by giving educators insights into some students’ perspectives on their school trip experiences. In addition, they also speak to the influence of teachers’ learning agendas, both declared and undeclared, on student learning. While the outcomes of this study are not intended to be strictly generalized, they do help educators to become aware of the issue of student perspectives on their learning experiences and may challenge assumptions about the design of future educational experiences.

**LITERATURE REVIEW**

**Informal Science Learning Research**

Up until the 1990s, a cognitive emphasis in defining learning has been prevalent in informal settings and research studies about learning in informal contexts as evidenced in assessments for recall of facts and concepts (Anderson, Thomas, & Ellenbogen, 2003; Falk & Dierking, 1992). For example, studies have attempted to determine whether students learn more or less from a visit to an informal site than in a classroom setting (e.g., Flexer & Borun, 1984), and how much content students can recall after visiting a site (Cox-Peterson, Marsh, Kisiel, & Melber, 2003). However, some educational researchers (e.g., Anderson,
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2003; Dierking, Falk, Rennie, Anderson, & Ellenbogen, 2003; Falk & Dierking, 1992; Schaubel et al., 2002) argue that learning encompasses much more than the cognitive aspect. It includes emotions, visual and tactile information, and social interactions, reemphasizing Bloom’s (1956) seminal work on the taxonomy of knowledge, which included cognitive, affective, and psychomotor domains. These researchers are of the view that a broad definition of learning has greater utility in the context of informal settings that is able to account for the complex nature of the experiences that take place. A broad definition of learning should rightly include the affective domain such as increasing curiosity and appreciation, developing motivation and interests, and forming and refining personal identity. Informal learning environments generally offer complex, stimulating environments and activities that go beyond most experiences that are possible in the classroom, and therefore can activate a wider range of learning potentials. Thus, the learning that could take place in these sites should be measured in a way that accounts for these different possible outcomes and gains. For example, Falk and Dierking (1992) discussed how many museums are trying to increase learning in visitors by finding ways to get them to process information more deeply, reflect on their prior conceptions in light of new information, and make meaning in their own sociocultural context.

Several studies (e.g., Anderson, 2003; Anderson & Shimizu, 2007; McManus, 1993) have demonstrated that vivid memories of experiences in informal settings are strongly influenced by the affective domains, including emotions. Falk and Dierking (1997) also reported that the memories of adults and older children concerning a school trip taken as a young child were contextualized with emotional information. These authors speculate that the affective information embedded in an experience allows for easier retrieval of information and memories of events, but that it is also an instrumental cause for self-reflection on those events. This illustrates how the affective and cognitive domains are strongly linked. Past researchers have disassociated these two domains to simplify means to study learning; however, this separation is artificial and may result in a lack of deep understandings of the learning process.

It is not only important for researchers to have a broad definition of learning to measure outcomes from an experience but also valuable to find out what the stakeholders involved in the trip value as learning, for those things will be what they are interested in and will be directing their attentions toward. Unfortunately, as discussed later, one stakeholder group is often overlooked in informal educational research: the students.

Student Perspectives on Their Learning Experiences

Ideally, informal education sites that seek to facilitate meaningful learning experiences for their visitors, especially students on field trips, promote tenets of constructivist and experiential learning theories: connecting to students’ prior knowledge and experiences, tapping into students’ interests, and motivating students to learn more about the topics introduced at the site. Yet, knowledge of these factors is often assumed by educators instead of being based on systematic research into the knowledge, experiences, and interests of the students. Moreover, there is little research that investigates whether or not these assumptions match the expectations and experiences of the students. We (the authors) hold several key views in relation to this matter. First, children’s views do not necessarily match adult ideas about the world and can question the dominant power structure, how things are, what is meant by “good,” and maybe give new or alternative ideas about how the world might be ordered (Lincoln, 1995). Second, students are the primary stakeholders of their
own education, and adults may underestimate children’s abilities to observe and process experiences and hence the value of their opinions is often underestimated. Third, schooling experiences, both in and out of the classroom, are very powerful shapers of learning and worldviews, so it makes sense to see how students view the school context and what meanings they make of it (Lincoln, 1995).

However, there is scant research focusing on informal learning that includes the perspectives of children or students and representations of their voices. Rather, as Piscitelli and Anderson (2001) point out, most data and conclusions are purely researcher-centered interpretations. One exception to this is Piscitelli and Anderson’s study, which examined young children’s (preschool and lower elementary aged) perspectives of past visits to museums. Their results demonstrated that children’s perceptions of museums could be counter to common ideas in visitor studies: the children recalled exhibits that made links to their everyday experiences, such as storytelling and climbing on structures, rather than hands-on activities (when they were unlinked to everyday life) which are thought by educators to be very engaging.

Another noteworthy study in this area was conducted by Andrews and Asia (1979). In a study on a New York art museum, they sought to understand teenagers’ views of their experience. They discovered that teenagers valued museum educational programs only as advancements for academic achievement, rather than as ways to learn more about the world. In addition, these teenagers did not expect to have fun at museums because of negative childhood memories of school trips where they experienced boring lectures, were unable to understand or see, and got tired from being “dragged around” (p. 229). Because of these associations, many of these young people would be highly unlikely to become art museum patrons as adults. It is this kind of information, along with counterintuitive findings such as Piscitelli and Anderson’s (2001), that points to the need for more research focusing on student perspectives so vital for informal education program development.

Other studies indicate a disconnection between teachers’ and students’ perceptions of informal education-related experiences. For example, Storksdieck (2001) found that many students did not recognize classroom-learning activities linked to a planetarium visit, although their teacher reported doing related follow-up activities. This conflict of appraisal is another reason that it is important to find out students’ views. A number of research studies suggest that students tend to compartmentalize their learning and fail to make connections between subjects or between classroom and “real-world” events unless explicitly led to these links (see, e.g., Anderson, Piscitelli, Weier, Everett, & Taylor, 2002; Slavin, 2003).

However, there is also research on student perspectives that has been conducted in classroom studies that can be drawn upon for insight into informal situations. For example, Hogan (1999) emphasized the value of exploring how individuals experience the same learning context differently. She examined how students’ “personal frameworks” influenced their work with peers during group discussions. She found that how students view the nature of learning and themselves as learners affected how they interacted with their peers in group activities, and what they developed as understandings about the subject matter.

Hogan argued that personal frameworks are important for developing communities of learners in which a diversity of students can participate (as promoted in the National Science Education Standards, National Research Council, 1996). To do this effectively, it is necessary to know about the individuals: not only their backgrounds and prior knowledge (the focus of many studies), but also individual perspectives, interpretation of tasks, and personal meaning of tasks. These factors affect student involvement in learning, including motivation to learn and the strategies they use to make meaning.
The findings of these studies point to the need for more investigations into student perspectives on their learning. The few existing studies in informal education demonstrate that young children may respond to different aspects of exhibits more than educators may assume, and that teenagers may have developed negative attitudes and expectations of school trips because of their experiences in earlier years. In classrooms, studies have shown that students’ perspectives affect what and how they learn, and that educators sometimes make invalid assumptions about student interests and needs. Finally, in both formal and nonformal situations, students and teachers sometimes have different ideas about what happened during an educational experience. Much more work needs to be done to elucidate what students think, value, and feel about their learning.

METHODOLOGY

This study was a focused examination of stakeholders’ perspectives and beliefs about learning emergent from a school field trip visit to a zoo, utilizing a comparison between two independent case studies. The two case studies comprised a Year 7 (11- to 12-year-olds) class and their teachers from two different schools in New Zealand around their experiences of school trips to each of two different zoos. The study could be most accurately described as an interpretive qualitative study (Gallagher & Tobin, 1991; Merriam, 1998; Stake, 1995) in which highly descriptive accounts of the richness of stakeholders in zoological field trip visits—students’, teachers’ and zoo educators’—perspectives and beliefs were captured and later interpreted. The interpretive stance sought to understand each of the two different case-communities of students, teachers, and zoological field site staff in terms of the actions and interactions of the participants, from their own perspectives (Tobin, 2000, p. 487). From a sociocultural theoretical perspective, we assert that each stakeholder examined within the two case study groups held collective thought and action in which the perceptions and views specific to their group exist dialectically with cultural and social structures of the group (Bourdieu, 1993; Sewell, 1999). That is, students, teachers, and zoo educator’s perspectives and beliefs are mediated by their cultural values, dynamically influenced by the other stakeholders within the case-communities. Hence, from the outset of the study we recognize that stakeholders will have perspective about zoo field trips that are grounded within their particular culture paradigms and will, in some instances, be at odds with other stakeholder views, but are mediated by the community in which they are situated.

To gain rich understandings of the perspectives of stakeholders and their community, several data sets were collected that would richly illuminate their views, including classroom and zoo trip observations of the participants, surveys, students’ work, and face-to-face interviews with students, their teachers, and zoo educators. In addition, meanings that the researcher gave to the interpretation of participants’ experiences were attempted to be faithfully preserved by capturing the voices of the participants (Lather, 1993). The study was framed by three key research questions, which guided data collection and analysis. These were as follows:

1. What are the stakeholders’ (students, teachers, and informal education site educators) expectations and goals for their school trip?
2. What do the stakeholders believe that students learned, and how students benefited (or not) from the trip?
3. What are the areas of match and mismatch between stakeholders, and within individuals, in their goals, expectations, and perceived outcomes?
The Participants

Schools that were the subject of the research were contacted and invited to participate in the study by a letter explaining the study’s aims. One condition of participation was that the classroom teacher needed to have planned a class trip to a zoo. Among those schools with teachers who were interested, two were chosen that matched on many factors: both had one class of students 11–12 years of age, the schools were small, located in rural areas near a medium-sized city (which may have exposed the students to more/different types of experiences with animals/natural settings than inner-city students), and in the same socioeconomic ranking (at the high end) in New Zealand. Teachers and students from the two classes, in addition to education staff at the zoological field sites, agreed to participate in the study.

The two case schools and classes possessed characteristics that clearly delineated the cases. The first case school, Ascension High, was a private religious secondary school, and the participating class was the youngest of that school. The other case school, Valley Primary, was a public primary school, and the participating class had the oldest students in the school.

In addition, the zoo trip for the Valley Primary students was designed by the teachers to be an integral part of a classroom learning unit, whereas the zoo trip for Ascension High students could be characterized as a reward trip in which the teacher hoped “some learning would occur;” but it was not related to classroom studies or the school curriculum.

Data Collection

Data were collected in four stages for each class. In Stage 1, classroom science lessons were observed beginning at least 1 week before any pretrip activities started. Once pretrip instruction began (in Valley Primary School), observations were made about what the students were learning related to the trip. During this pretrip time, researcher-designed surveys, interviews, and observations were used to obtain information about the students’ goals and expectations for the school trip, and baseline data from the students about their knowledge and experience related to these learning goals and the informal education site. In addition, interviews with the teachers and informal conversations with the zoo educators were conducted regarding their goals and expectations (agendas). Stage 2 was the school trip itself. Some student groups were directly observed, and student conversations were recorded in other groups by having a student or teacher in each group carry a cassette recorder. “Recorders” were instructed to announce for the tape recorder which animals the group visited and what the students in the group were doing. The focus was on gaining information about what students were doing and information they were getting through conversations that occurred during the trip.

Stage 3 occurred in the classroom following the trip. A researcher stayed in the classroom for as long as the teacher did follow-up and connected learning activities relating to the school trip (1 day for Ascension High, and 2 weeks for Valley Primary). These lessons were observed and recorded as fieldnotes. The students were also interviewed about their experiences and opinions. In addition, the learning assessments that the teacher used as part of the class were gathered and analyzed. Finally, at Stage 4, students were interviewed a third time at the end of the school year, 3–4 months after the trip. Background contextual information was collected including a familiarization with the school curriculum, informal conversations with school principals, other teachers in the school, administrative staff,

1 A pseudonym.

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students, and parents. Information about the educational content and philosophies of school trips in general was also gathered from the zoo Web sites.

To help ensure the validity of the data, “member checks” were conducted on the interview and survey data: Teachers and students were given copies of their transcripts and were asked to review them and clarify, add to, or even change their answers. In addition, a researcher conducted a final group interview with students from Valley Primary School, talking to them about the main themes from their surveys and interviews and asking them to comment, add detail, or even argue against our interpretations. Ascension High School students had already left for their summer holiday by this time and were unavailable for a focus group discussion.

**Data Collection Methods.** Four forms of data collection methods were employed in the study: surveys, semistructured interviews, naturalistic observations of the classroom and zoo trips, and student work.

**Written Surveys.** Written surveys, which were administered to students, comprised both pre- and postmeasures intended to obtain some basic information about students’ goals, expectations, and perceptions of their zoo trip. Pretrip surveys consisted of four open-ended questions: What do you think you will do on the trip?, What will your teacher have you do?, What do you want to do?, and Why is your class going to the zoo? Five posttrip questions (also open-ended) asked what students found fun and boring (and why), what they would change to make the trip better, and what they thought were the most important things they learned. Pretrip surveys were given to all participating students, and posttrip surveys to all participating students at Valley Primary. Ascension High students gave highly nonproductive or no answers on their pretrip surveys that yielded little information, so they were not given posttrip surveys.

**Interviews.** Pre- and postvisit interviews were conducted with a subset of 9–10 students from each class using an interview protocol designed to obtain a more in-depth picture of students’ goals, expectations, and perceptions surrounding the field trip experience. This subset of students was chosen with the teacher to represent the class, with a range from lower to higher achievers. The interview also probed and explored connections the students saw between the trip and classroom-learning activities, and what they viewed as “fun” and “boring”—what criteria they used—to see if these ideas related to students’ perceptions of learning on the trip. Students were asked how they defined “learning,” including what counts as learning and how they know when they have learned something. Pretrip interviews were conducted after the written survey, using the survey as a starting point to ask for more detail and clarification. The posttrip interview took place at the end of the unit, after the teacher had done any follow-up activities and assessments (1–2 weeks after the trip). Finally, a second posttrip interview was conducted at the end of the year (approximately 3 months after the trip) to measure some longitudinal effects from the school trip experience and refine some questions based on analysis of previous interviews and other data. Each interview took approximately 15–30 minutes to administer.

The classroom teachers were interviewed using a protocol designed to probe their goals and expectations before the trip, as well as after the trip to find out if/how these were met or not, and what they perceived students learned and gained from the trip (including questions related to posttrip assessments given by the teacher). The teachers were asked how the trip tied in with classroom learning, and specifically which classroom activities were for this purpose.

Finally, informal interviews with the zoo educators involved with the school trip explored their goals and expectations for the students and their general educational philosophy and
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approaches to informal education. Because these educators had little or no contact with the students, little information about their goals or expectations specific to these classes, or their perceived outcomes from the student visits was gained.

Classroom and School Trip Observations. Classroom and school trip observations were “naturalistic observations” (Angrosino & Mays de Perez, 2000) in the settings that are the natural loci of the activities being studied: classroom learning of science and school trip activities. Observations also helped provide information on the physical contexts of the classrooms and zoo, plus classroom activities related to the school trip before and after in order to verify what the students did, how the activities were presented, and if/how the teacher connected them to the trip. The trip was also observed to confirm what was taught and what the students did. Observations were recorded as fieldnotes.

Because all students could not be observed when they were separated into different small groups, two students from each class were to record their conversations on the trip to get more of an idea about what they did and talked about, and possibly some indication of learning that took place. For Valley Primary School, the teacher suggested a couple of students to carry tape recorders, and a couple to ask if they could be observed. One boy and one girl were selected to carry recorders. This was altered for Ascension High School for religious reasons; instead of students, a teacher from one group recorded the group. These observations and conversations provided further points for follow-up interviews to touch on for more clarification and details about the trip experience.

Student Work. Student work associated with their zoo trip was photocopied and/or photographed to gain further insight into students’ learning and experiences. This student work was teacher directed; researchers did not ask for any type or work to be done, but merely asked to collect what the teachers assigned. Student work confirmed and in some cases clarified themes and issues that arose from the other data sources.

These four sources of data were deemed necessary to allow triangulation and provide a valid interpretation of what occurred as part of the field trip experiences for students. In addition, these sources combined together provided a rich, holistic interpretation of the experiences in which to not only preserve and reveal student voices but provide the context for what students were saying.

Data Analysis

Data were analyzed with a constructivist grounded theory approach (Charmaz, 1995, 2006). This stance avoids criticisms of inherent positivism in Glaserian and Straussian positions (see, e.g., Denzin, 1998) by recognizing the relativism of social reality and the construction of understandings by the viewer and the subjects (Charmaz, 2006).

As part of data analysis, case narratives for each school were constructed throughout the study. The sociocultural theoretical perspective implicit in the researchers’ epistemology of learning required gathering information not just about the schools, but the classrooms, teachers, students, and zoos that were visited. Narratives of the two cases were constructed in parallel so that they could be compared and contrasted on the factors of interest.

All data were organized into categories of “goals,” “expectations,” and “outcomes” for each stakeholder. For students, these categories were differentiated in the following manner: “Expectations” were drawn from questions (interviews and surveys) aimed to find out what students perceived would happen on their trip, such as the following:

- What kinds of things will the teacher have you do on the trip?
- Why do you think your class is going on the trip?

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What has the teacher said about the trip?
• What have you done in class to get ready for the trip?
• Was the trip like what you expected (afterwards); how/why/not?

Also, student responses that included phrases such as “I thought we would. . . ” or “I thought it would be. . . ” were included.

“Goals” were determined from interview and survey questions meant to reveal what the students themselves wanted to do on the trip:

• Which animals do you want to see and why?
• What do you want to do?
• What do you hope you get to do?
• Were there things you wanted to do but did not (afterwards)?
• Are there things you would like to go back to do/see (afterwards)?

In addition, student responses that included phrases such as “I hope we get to. . . ” or “I hope it will be. . . ” or “I would like to. . . ” were included.

“Outcomes” came from post- and post-post-trip questions asking about what students remembered, what new information they thought they had picked up, and indirectly from other things they mentioned about the trip. In addition, student work was examined.

For teachers and zoo educators, the three categories were designed in a similar fashion, except concentrating on their goals and expectations for the students. For outcomes, teachers were asked:

• How did the trip go? Do you think the students enjoyed it? (What aspects do you think they enjoyed/did not enjoy?)
• What do you think your students learned from the trip?
• What do you think they gained (other things than knowledge)?
• What follow-up activities have you done/are you planning to do?
• How did the zoo trip fit into your curriculum?
• Was there anything you would like to do differently next time?

Data were analyzed with a constant comparative approach (Charmaz, 1995; Glaser, 1978, 1992), sorted into categories that matched the research questions, and coded for emerging themes, keeping in mind the central focus of revealing and reporting students’ voices. Examples of codes for students’ goals were the following: Want to see animals, Want to interact with animals, Doing their assignment, Fun/like, and Emotional goals. Some of the codes for positive perceptions from the trip were the following: Choice, Be with friends, Trusted without adults, What students found interesting, and Assignment. Some of these goals were similar to goals expressed by teachers and zoo educators (e.g., doing the assignment, fun/interesting things for students); however, each had their own goals as well (e.g., zoo educators had a goal of students learning about conservation). An exemplar of a student’s coded data is provided in the Appendix.

In addition, matches and mismatches between stakeholder groups (students, their teacher, and the site educator) for each category, and within individuals across categories, were identified.
RESULTS AND INTERPRETATION

The interpretation of the data from each case will begin with a vignette-style description, beginning with a picture of the classroom and the social interactions among students and their teacher. The focus is on the learning activities in the classroom (both before and after the zoo trip), and on the trip itself, including the teachers’ and students’ perceptions of these activities. However, observations and interviews also recorded interesting views from the participants, from their values and motives, to their views on learning. These vignettes are then followed by an elaboration of the major themes or findings that arose from the full case analyses. The answers to Research Questions 1 and 2 are embedded in this narrative. Research Question 3, focusing on the issue of mismatch among the constituent groups’ goals, expectations, and perceived outcomes, is discussed at the end of this section.

The Ascension High Case

The participating students were in a Year 7 (11- to 12-year-olds) science class of 17 pupils in a private religious school, taught by Mrs. A. This class covered biology, chemistry, geology, and physics during the course of the school year. It was held in a new building, set up in a laboratory format, with students sitting (facing the front of the room) at benches that were equipped with sinks, gas outlets, and laboratory equipment. Mrs. A began every class formally, waiting for students to get seated and quiet, followed by a brief lecture that described the activities for that day. Observations revealed that students were often making noise with their chairs, books, or equipment, or talking, delaying the start of class and causing Mrs. A to have to speak very loudly. Nearly every observed “lesson” was a worksheet for students to fill in, with written resources (books or fact sheets) for students to use to find the answers. Sometimes mathematical calculations were also required. This occasionally alternated with other physical tasks, such as cutting out paper planets and coloring them (the current unit was on the solar system), or making posters. Students were allowed to choose where to sit, and worked together on all of the tasks. However, it was observed that little constructive, on-task discourse was characteristic of students’ behaviors; most talk was about things other than the assignment. While students worked, Mrs. A walked around the room among them, answering individual questions. A few times she went to the front board and talked the students through a question that several students had difficulty with. At the end of the class, if students had finished, she went over the worksheet with the whole class, asking students to give answers. Classes were 45 minutes long.

On the basis of classroom observations and interviews, Mrs. A held a transmission-based epistemological model of learning based on Bloom’s (1956) first level of cognition: memorization and recall, and a pedagogical style that was consistent with this view (e.g., she believed that students would learn by reading information and writing it down). Her teaching practices focused on students remembering facts and did not ask them to go beyond this; she did not assess whether they understood the information or could apply it to a new situation, and students were not asked to analyze, synthesize, or evaluate information.

Analysis of interview data revealed several additional insights about Mrs. A’s beliefs about school trips and her power of choice (or the lack of it) within her school. Her rationale for the zoo trip was as a reward for students, and the timing of the trip was based on an administrative timetable and not tied explicitly to instruction in this particular class. She had wanted to take them the previous term while they were studying animals; however,
parents had decided that the entire school would go on various trips on the same day, and while the principal, teachers, and parents professed a desire for students to learn, it was usually referred to as a “reward day” by the teacher, students, and a notice in the teachers’ lounge. Mrs. A hoped that the students “would learn something about animals.” She also hoped they would behave, but feared there would be a lot of behavior problems. She hoped that the zoo would provide worksheets (they did). In sum, Mrs. A did indicate that she hoped learning would occur on this trip, but she was vague about what exactly her learning goals were and she did not do anything either in her class or on the day of the trip to promote specific learning goals.

Students also had vague ideas about what they were supposed to learn on the trip. In interviews, many of them said that they were expected to learn “something about animals” and their ideas about what this meant were slightly less vague than their teacher’s: “... where they live and what they do,” “... like the habitat they live in, what they like doing.” Students reported that what they actually wanted to do was see entertaining animals (most of them mentioned monkeys) and be with their friends.

The zoo visited by the Ascension class employed former primary and secondary school teachers to develop and deliver educational content relevant to the New Zealand curriculum. Several of these educators spoke about the importance of making the information “interesting to students,” especially by providing a lot of hands-on materials (such as stuffed specimens, bones and shells, and some live animals when practical). The trip took place during the zoo’s “Conservation Week,” for which the staff had crafted a set of activities and temporary exhibits and a 4-page worksheet. The activities consisted of stations with “touchables”—the hands-on material—and live animals at some, with short lectures about the animals. There were many messages and a lot of information contained within the conservation theme: biodiversity, endangered species, adaptations to habitats, waste management, recycling, and what different agencies (including the zoo) actually do with regard to conservation. An important point mentioned by educators was to make the issues of conservation relevant to students’ own lives and therefore more engaging, so the activity stations, lectures, and worksheet tied in to student experiences such as pets, garbage, gardening, and so forth. The zoo educators’ expectations for students participating in the Conservation Week activities were that they would learn something about the issues presented. However, the educators also believed that many students (and teachers) would still take more of an entertainment view of their experience, and that learning would be in the background. Because these educators had no follow-up or reports back from Ascension High School, they did not have any information on what students might have gained from the trip.

Students spent the night before their trip at each other’s houses within the religious community, and the next day all rode a bus together for more than 1 hour to the zoo. Upon arrival Mrs. A divided them into groups of six students each, chosen to minimize misbehavior, which were led by either a teacher or a parent. Another teacher read the zoo rules outside the entrance and passed the worksheets the zoo had provided to the parent and teacher group leaders. The observed parent-led group paid little attention to the worksheet.

Back in the classroom the day after the trip, it was observed that Mrs. A’s only posttrip activity was asking students to write down two things they learned or remembered from the trip. She did not ask students to share their memories with each other and did not go over or even mention the zoo worksheets. The class immediately resumed its study of the solar system.

In her posttrip interview, Mrs. A indicated that upon reflection on the field trip experience she felt that students “gained extra knowledge on the animals, because of the educator’s explanations.” She felt that students paid attention to the learning activities provided on the worksheets because “most groups were present when they were feeding the tigers, that

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showed they had read the information sheet that was given to them. Or somebody read it.” She also felt that students enjoyed the trip.

All students, however, reported in interviews that while they did enjoy the trip, they felt they learned very little. What they really enjoyed was animals “doing funny things” and the time they got to spend with their friends, especially the night before the trip and on the bus. When asked what they learned, most students cited some “interesting” declarative facts they had heard, such as the length of a giraffe’s tongue, or “that a baboon shows you its pink bottom if it likes you.” Three months after the trip, most students could recall very little of this information or anything else in interviews, other than that they liked seeing the animals and being with friends.

The Valley Primary Case

In this public primary school, Mrs. V\(^3\) taught every subject in the participating class: a self-contained Year 7–8 class (11- to 13-year-olds\(^4\)) of 50 students, with the assistance of at least one other part-time teacher (including the school principal, who liked to stay involved with teaching). The large room and classroom furniture were aged and well worn. A large open space in front of the whiteboard was used for students to sit on the carpet for whole-class activities. Students also sat at tables in groups of five for individual and small group work. They were free to go outside, or use the adjoining computer laboratory or library, during small group work times. Observations showed that Mrs. V or one of the other teachers began each science session (usually after lunch, and lasting 1–2 hours depending on the tasks) addressing the whole class sitting on the floor. Students were encouraged and rewarded for offering their thoughts and ideas to these discussions, as well as listening quietly and treating each other with respect. The teachers had students participate in a wide range of activities designed to let students practice how to think independently, articulate their ideas to other individuals and to the group, write about their ideas and knowledge, find and synthesize information from written sources, and present their ideas in creative ways (such as reporting, acting, singing, and dancing, and in two-dimensional and three-dimensional (3D) media). Students were often asked to share knowledge and thoughts with the class and defend their opinions with reasoning; “wrong” information was gently questioned and discussed for validity.

Mrs. V and her assistant teachers were often observed discussing with each other how lessons and assignments were going during breaks, as well as before and after school. They were all involved with the planning and design. In interviews, Mrs. V said her philosophy of learning was one where she strived to build “lifelong learners” who could be “collaborative, flexible, focused, motivated, and innovative.” Students were given lots of choices in their work, and their ideas were often sought and valued. Classroom observations, interviews, and conversations with Mrs. V clearly demonstrated that she held beliefs about and practiced constructivist, student-centered pedagogy. Observed student assignments and activities were not focused on memorization and recall of facts, but concentrated further up Bloom’s (1956) cognitive scale: comprehension, application, analyzing, synthesizing, and evaluating information. In addition, Mrs. V and the other teachers tied learning to the affective realm, with activities and discussions around the value of animals, why people should care if they are endangered, and so forth.

All of these practices extended to the activities for the zoo trip as well. The trip was planned to be an integral part of a classroom unit on endangered animals. The teachers

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\(^3\) A pseudonym.

\(^4\) This study focused on the 11- to 12-year-olds, to be parallel with the Ascension High study.

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designed 2 weeks’ worth of activities before the trip, and nearly 2 weeks afterwards. Mrs. V and the other teachers had explicit learning goals for the classroom unit: To become aware about endangered animals and the types of things that contribute to their endangered status, to learn what people can do to help, and what organizations exist to help as well. A specific goal for the trip itself was to give students the chance to “meet the animals.” Mrs. V said she felt this experience was important for students to actually see the animals and give them a more “real” experience than just finding information on the Internet or in books. The zoo trip was seen as a central, motivating piece, as students would be allowed to choose which endangered animal at the zoo they wanted to study. Mrs. V said she was taking the students to the zoo because

I think school trips are fabulous, worth every minute of organization because you get a lot of motivation out of the kids—they learn a lot when they’re out of the classroom. So I’m really into them—they’re really beneficial to [students’] learning.

Analysis of the student survey and interview data demonstrated that students understood and appreciated the general learning goals and what was expected of them from the field trip experience. They also were looking forward to seeing the animals, not just for fun and entertainment, but also to learn more about their study animals specifically.

This class visited a different zoo than Ascension students. The zoo’s educational program ran fundamentally the same as the other, but on a much smaller scale. The education officer (also a former classroom teacher) discussed with teachers what they were doing in class related to the zoo visit to help decide what information to include in the lessons that she tailored to each class. As with the other zoo, conservation was a core theme, worked into lessons wherever possible.

The education officer said that the trip experiences were meant to be as fun and interesting to students as possible, to engage them so they would learn. Lessons were a combination of talking/lecturing inside with animals and animal parts as props that students could touch, sometimes with short videos to watch, and most of the lessons took place outside where students could see the animals, because the education officer felt that having a sensory experience—touch, sight, and sound—was very important for children. Younger students were less likely to have much if any time spent inside, as the educator felt they were better off walking around than trying to sit still. Like the educators at the other zoo, she did not often ask or get feedback from school groups after the visit.

For their trip, observations recorded that the Valley Primary class did not spend any time indoors. They went around the zoo with the education officer as she showed and talked about three endangered animals: white rhinos, cheetahs, and chimpanzees. After this whole group time, students then were able to form their own groups to go around the zoo and get information about their chosen animals, without adults. After lunch, students were able to go and see whatever they wanted, again without adults in their groups. Students said during the trip and in interviews that they felt the absence of direct adult supervision was the best part about the trip, as it allowed them to choose who to be with and where to go, rather than being told.

Posttrip activities in the classroom were observed for about 2 more weeks, focusing on students writing up their reports and making either posters or 3D displays of their study animal. Lessons and activities concentrated on good writing skills. Other activities involving the zoo trip included discussions and writing assignments about the animals, the pros and cons of zoos, the different causes of low animal populations, and some dance and theatre performances.
In her postunit interview, Mrs. V said she was very pleased with the outcomes. She had a lot of evidence of learning, from various writing assignments, group and individual conversations, performances, and the final presentations of their endangered animal reports (along with the poster or display).

Interviews with students immediately following the trip and 3 months later showed they could talk in great detail about their study animal, endangered animals in general, and zoos. At both times they could tell the interviewer whether they thought zoos were good or bad, and why they thought that. Several students also talked about the emotional impact that seeing the animals at the zoo had on them.

**Summary of the Cases**

In summary, the classroom cultures around learning beliefs and practices differed significantly between the two cases in this study. Mrs. A led her class in a rather authoritarian manner, using a transmission mode of teaching; she did not speak about reflecting on her practice, or ask students to reflect on their learning. Both she and her students viewed learning as essentially a memorization and recall function. Both also viewed the zoo trip as largely a reward experience with some vague learning potential. The students were highly social, but not organized or engaged to use this constructively toward learning.

On the other hand, Mrs. V’s expressed pedagogy and epistemology was highly student centered and constructivist. She actively sought student input and listened to their ideas. She was not only very reflective on her own work but also made student reflection on their learning a normal part of classroom activities. Both she and her students had high expectations for learning as well as enjoyment of the zoo trip. The student culture in her classroom was also very social, but Mrs. V channeled this into the learning tasks to get students to articulate their ideas, form reasons for their opinions, share their learning, and learn from each other.

**Themes Within the Cases**

Data analysis highlighted three main areas of impact for students. These were around what students valued from their trips, how they learned, and the role of their classroom teachers and zoo educators.

1. **Learning was strongly influenced by the sociocultural context of the classroom: the teachers’ learning agenda, views on learning and pedagogy, and the values they promoted.** The different culturally established expectations between the two schools and classroom-learning environments led to very different outcomes from the zoo trip. For Ascension High students and their teacher, the central expectation was enjoyment. Before their trip, all of the Ascension High students matched their teacher’s vague learning expectations. For example, Alice said they were going to the zoo “to get to know more of the animals, more information about them.” Angie had the most detailed view: “So we can learn more about animals and what food they eat and how they live and stuff like that.”

   After the trip, Ascension students and their teacher expressed learning and engagement on rather superficial levels, mostly as stand-alone facts they found “funny” or “interesting,” such as the length of a giraffe’s tongue, how long reptiles can live, and so forth. This learning was substantially diminished by 3 months after the trip, when students said they had learned “nothing” or “little bits and pieces” they could not recall.

   This was in stark contrast to Valley Primary. The teacher had high expectations of the trip, and students were able to articulate most of these in general. They had not only an
expectation for enjoyment but also a focus for learning about their chosen endangered animal. Students were used to reflecting on their learning in the classroom and had more highly developed ideas about what learning was than Ascension students. Pre- and posttrip classroom-learning activities which sought and gained a lot of student engagement led to high learning outcomes in both the cognitive and affective realms, which continued at least 3 months after the zoo trip. Students discussed not only facts but contexts, cause and effect, made links with their personal lives and interests, and emotional connections to the animals.

2. **Learning from the zoo trip did not seem to be strongly influenced by the zoo educators’ agendas.** In fact, the least enjoyable or most “boring” aspect cited by students from both classes was listening to adults (usually zoo educators) “go on and on” about things the students were not interested in.

   This was despite the expressed desires and efforts by the educators from both zoos to make school trips “interesting” and “fun” for students. Both sets of educators talked about making information relevant to students and using hands-on props to engage them.

   Ascension students did talk about the importance of educators using live animals rather than stuffed ones in their talks. When asked how they would improve school trips to the zoo, these students, who had had both talks with stuffed animals and another talk in which live animals were used, said they thought the live ones were much more interesting.

   However, the zoo educators’ intent for students to learn about conservation did not make an impression on Ascension students. Only one student mentioned a conservation message when talking about what she had learned immediately after the trip, and no students mentioned it 3 months later.

   The Valley Primary students did talk about conservation issues, but only in relation to their study animal assignment. Most of them said they did not like the way the educator had spent so much time talking about the white rhinos (20 minutes), who were “just standing around” grazing, and only about 5 minutes with the chimpanzees, who came up to the viewing glass where the students were. After the trip, most students did not mention anything they had heard about the white rhinos, but several talked about how important it was not to throw objects into the chimpanzee enclosure because they could catch human diseases.

3. **For students, one of the most important aspects of their trip was their social context, especially whether or not they got to be with their friends.** Valley Primary students were allowed to choose their group to go with around the zoo, and they rated this as the most important and fun aspect of their trip.

   I thought we’d have to go with the whole class to each animal. So it was better, ‘cause we got to be with our friends and stop and ask other people what they saw.

   Because Ascension students were placed into groups by their teacher, they spoke more about valuing being with friends on the bus ride to/from the zoo. Especially mentioned 3 months after the trip:

   Well, the funnest part was staying at someone’s house the night before, and the bus trips were quite fun. . .

   Zoo learning was socially embedded, as students discussed with each other what to go and see, for example, what was “cool” and worthwhile. Also, students from Valley Primary said they learned by talking with their friends: sharing information among others who were
studying the same animal to get more information and other views; and learning about other animals by hearing what others were studying and learning.

I was doing the Sumatran tiger and my friend Jenny was doing the giraffe, so it was easy to learn ’cause we would just talk about it. Your friend tells you all their information and you tell them all your information, and that’s kind of an easy way to learn.

In both classes, students were highly social and placed a lot of importance on being with their friends. The Valley Primary case demonstrates that this social need can be harnessed for learning, by getting students to work together, share, and discuss what they are learning with each other.

**Areas of Match and Mismatch**

In the case of Ascension High, the students and Mrs. A had a good match, as neither had any clear or specific ideas in mind, although in learning outcomes the teacher thought students “learned” more than students felt they had. Mrs. A may have overestimated what the students gained, or the students may have been overly dismissive about what they had learned because of their narrow definition of learning as remembering facts. Students and teacher also matched on their views about learning, and neither party mentioned gains outside of this narrow view (such as increases in empathy, interest, motivation, and so forth).

Mrs. A and her students also matched on the goal of having a good time, although Mrs. A seemed unaware of what factors students would enjoy (i.e., seeing animals “doing things”). The greatest mismatch was between the class and the zoo educators’ goals. The zoo educators’ desire for students to become aware of and learn about various conservation issues fell far short, as neither the students nor their teacher seemed aware of these issues at all, except one student who talked about the predator pests that eat native birds. The zoo goal of increasing students’ motivation to learn more about animals was not very successful in this group either, as the majority of students said they had “learned enough” about animals.

In the case of Valley Primary, the students, the classroom teacher, and the zoo educator had a high degree of match for expectations and goals. As discussed earlier, Mrs. V had a specific plan for student learning about endangered animals, and students were aware of the general objectives. The education officer was also mostly in tune with the teacher’s learning goals, though she added in things that she thought would interest students. The only mismatch seen in this area was that Mrs. V wanted students to learn what they could do to help endangered animals, but this point was not addressed by the zoo educator. In addition, when I asked students about this item after the trip, most of them were unsure what they could do personally. One student brought up the topic herself when asked if the trip made her want to learn anything more about animals: “I want to know what I can do, and what I can teach people, like educate people to save endangered animals, ‘cause I never really thought about it, that they were really that important.”

Both the zoo educator and Mrs. V hoped that the trip would spark student interest and motivate them beyond just cognitively learning about endangered animals. And all three groups hoped that students would enjoy themselves on the trip. The only mismatch seen in this area was in the zoo educator’s ideas about what kinds of information would be interesting to students. Many students reported they found her tour “boring” because she emphasized aspects that did not interest them.

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DISCUSSION AND IMPLICATIONS

While the modest scope of this study limits the generalizability of the findings, there are nonetheless some noteworthy implications of this study. Some of these may seem intuitive, but are supported by our data and combine with theoretical perspectives derived from the literature to empirically confirm some approaches to informal learning.

The main implication of these findings is that, to maximize the learning potential of field trips, classroom teachers need to have clear, explicit learning goals that are tied to classroom-learning activities. This confirms previous research on the importance of classroom pre- and posttrip learning (see, e.g., Anderson, Lucas, Ginns, & Dierking, 2000; Falk & Dierking, 1992). The results from this study suggest, at least in these two cases, that classroom teachers have an important role in shaping their students’ trip experiences, not only what students do, but how they view the trip, what they value and focus on, what they see as the purpose of the trip, and what they remember about it. Ascension High School’s trip is a classic example of the way trips are often used and demonstrates the shallow, short-lived learning that is probably typical (Griffin & Symington, 1997). However, as Mrs. V of Valley Primary demonstrated, the classroom teacher’s efforts and planning can make a significant impact on students, especially if students are explicitly made aware of the goals and expectations for the trip. Some previous research has shown that students can be unaware of their teacher’s learning goals for the trip or how the trip tied in to classroom work (e.g., Storksdieck, 2001). The current findings show that this is not inevitable; perhaps the teachers in other studies had not made their goals explicit.

Both zoos had similar educational philosophies and goals for student learning; however, despite the best intentions and plans, these goals fell far short depending on what the classroom teacher did. An implication for teachers is that they are the primary determiners for the learning potential (or lack of it) of their students relating to a school trip. The importance of pre- and postvisit classroom-learning activities for enhancing learning gains on school trips has been documented in previous research (such as Anderson et al., 2000; Tofield, Coll, Vyle, & Bolstadt, 2003). In addition, Anderson et al. (2002) found that young children made tenuous links between school visits to informal sites and classroom learning, unless those connections were robust and made explicit. Teachers’ desired learning outcomes, then, must be reflected in the amount of classroom time and work that they devote to learning related to a trip. If they want their students to have maximum gains in learning, especially beyond surface learning of facts, teachers need to give students opportunities to build trip learning experiences into classroom activities and ideas, and follow through with these after the trip. If teachers merely rely on a zoo educator to lecture students, or give them a worksheet, student learning will most likely be shallow and fleeting.

Another implication is that if zoo educators want to have a strong influence on student learning, they need to work closely with classroom teachers to ensure there are clear, explicit learning goals, that the zoo educator knows how the trip fits in with pre- and posttrip classroom activities, and what the students want and expect from the trip. Both cases showed that zoo educators’ assumptions about what students would find interesting or engaging were often not what students identified or attended to.

A third implication is that students’ desires for social interaction should be harnessed to enhance engagement in learning activities on field trips. This could be brought about by allowing students to be in groups with their friends and could be focused by having students discuss what they saw, learned, and enjoyed with each other (e.g., Griffin, 2004).

The fourth implication is that the role of student control and choice could be encouraged to help engage and motivate student learning on field trips. A number of other studies have
demonstrated that students value a sense of freedom and choice in their learning (see Falk & Dierking, 2000; Griffin & Symington, 1997).

Perhaps alternative theoretical perspectives, such as critical theory, could expand on how such engagement could be obtained. Critical pedagogy urges us to be aware of how power relationships in the classroom affect what students learn; where the teacher, a dominant authority figure, imposes values and structure, and the students are dependent and shaped by this force (Freire, 1998). However, when this relationship is made explicit, teachers can use their position to help students participate in their education—give them a voice and help them develop the ability to critically consider the goals and direction of their education rather than “merely following blindly” (Freire, 1995, p. 379). Teachers should not renounce their authority, but use it to offer students tools to participate and rigorously understand the world around them (Freire, 1995; Giroux, 2004). Giroux also points out the important role of emotions and affect to help students connect knowledge to everyday life and give this knowledge meaning, rather than just a transmission of facts.

In this way the Valley View case, while not perfectly following critical pedagogy ideals, might offer us some insights into how it might work in relation to school field trips. While directing the learning content and focus, Mrs. V implicitly gave students power to control some aspects of their learning and helped students develop thinking tools to form opinions about conservation and zoos. This is in stark contrast to Mrs. A’s approach, which was much more like Freire’s “banking education” of depositing information into students’ heads (MacLaren & Giroux, 1990). How much further could issues of enhancing learning by channeling student choice, freedom, and teacher direction be addressed by more explicitly involving students critically?

Concluding Remarks

At the outset of this study, an overarching goal was to give voice to students in the forum of research on school trips. This study accomplished that aim and has shown that students have important ideas about their own learning experiences. While none of what we documented as the student perspective was particularly surprising, what is important to note is how these ideas could challenge educators to attend more carefully to students’ views of their own learning. Teachers and educators can tap into students’ ideas and perspectives and attempt to achieve better alignment, potentially yielding great learning benefits. However, when students’ desires and views are poorly matched or influenced, the learning opportunities will most likely be missed.

Typically, adults design informal learning activities for students, make decisions about what students should learn, define whether or not that learning has occurred, and to what degree. Very little research has explored what students make of these experiences, especially what they believe they are learning and the value of school trips. This study confirms some previous findings that adults’ assumptions may not always align with students’ perspectives (Andrews & Asia, 1979; Hogan, 1999; Piscetelli & Anderson, 2001).

The study highlights the impact that the classroom teacher has on his or her students. The blatant contrast between both cases demonstrates that students’ perspectives about learning on the trip, ties with classroom activities, and even learning in general, were strongly influenced by their teachers.

At the outset we suspected that students would have ideas and perspectives that would influence their school trip experiences. We hope that students’ voices have been presented with fidelity, and that a convincing case is made for other educators to more actively engage students, the central stakeholders of educational endeavors, in plans and evaluations. Only
then can we hope to achieve alignment between the expectations, goals, and outcomes of each member in this complex interaction.

**APPENDIX**

An example for coding one student’s pre- and posttrip expectations

**Irene’s responses**

**Pretrip: Why are you going on a trip to the zoo?**

- Look at the animals (code: *see the animals*), get a picture of the animal we’re doing, a drawing. (code: *assignment*)
  
- To focus on the animal that you’re doing, look at what the animal is doing, and the habitat. (code: *assignment*)

- Find out some stuff about the animals that we don’t know, look at the other animals and their habitats and stuff. (code: *general learning about animals*)

- Probably write down what you saw, what they eat and stuff. Stuff like that. (code: *general learning about animals*)

**Post-trip: Was the trip like you expected?**

- I think it was a bit more than I expected (code: *different from expectations*) ’cuz I thought we’d have to go with the whole class to each animal. So it was better, (code: *different from expectations*) ’cuz we got to be with our friends and stop and ask other people what they saw. (code: *be with friends*)

**REFERENCES**


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