Secondary Teachers’ Utilization of Field Trips in an Era of High-Stakes Testing: A Research Study

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Introduction

Few learning experiences are as memorable for students as those that occurred during school field trips. Who could forget the authentic sights, sounds, and smells that trips to museums, science centers, zoos, memorials, reenactments, train stations, fire stations, city halls, and beaches provided to students. It’s no surprise to learn that teachers have utilized field trips for centuries in order to help teach subjects like history, science, mathematics, and language arts; amongst the many other topics a teacher could choose from throughout the ages (Atyeo, 1939; Krepel & DuVall, 1981, Kenna & Russell, 2015a). Today, teachers in United States of America are responsible for taking millions of students on what has now become a childhood rite of passage, the school field trip (American Science and Technology Centers [ASTC], 2012).

In fact, according to the Association of Science and Technology Centers (ASTC), a non-profit organization of science centers and museums with nearly 600 members in 46 countries with at least one member in all 50 of the United States, “school groups accounted for a median 16.2% of total on-site attendance [in 2011]” (ASTC, 2011, p.3). The figures equated to approximately 13 million student visitors in the United States, which is an increase of about two million from the previous year’s attendance numbers (ASTC, 2010; 2011). Not to mention the fact that the attendance figures do not include the number of students who attended sites not a part of the ASTC such as local, state, and national parks; non-member museums, science centers, and aquariums; zoos; theaters; reenactments; festivals; amusement parks; historical districts and societies; memorials; monuments; and many more.

While the attendance figures to ASTC institutions has risen in recent years, it is no clear indication that teachers are utilizing field trips at an equal
or greater frequency than previously. In fact, for the past decade scholars have indicated that real life field trips, as opposed to virtual field trips, are on the decline; most notably as a result of a poor economy, an increase in accountability via standardized testing, and an increase in fuel costs, among several other issues (Blachowicz & Obrochta, 2005; Coughlin, 2010; Gillett, 2011; Nabors, Edwards, & Murray, 2009; Schatz, 2004; Stoddard, 2009, Kenna & Russell, 2015b). The last study that quantified teachers’ utilization of field trips was conducted more than thirty years ago and the authors concluded that, “...teachers will continue to utilize the field trip as one of their instructional strategies. They will continue to do so at a reasonably high rate and in spite of the economic and organizational hassles they perceive” (Muse, Chiarello, & Davidman, 1982, p. 124). However, that study was conducted prior to the era of high-stakes testing.

Therefore this study, which was a part of a larger study, examined secondary (grades 6-12) public school teachers in the United States of America, within the fields of social studies, science, mathematics, and language arts; and sought to determine what proportion utilized field trips. Additionally, this study wanted to discover the number and frequency of field trips being used by those teachers. Lastly, this study examined if there were any significant differences between the numbers of field trips teachers used based on four independent variables (i.e. grade level, teaching experience, content area focus, and graduation from a teacher preparation program). The results of this study provide a snapshot of current teacher practices in regards to their utilization of field trips and can serve as baseline data for future studies. Additionally, the study stands to influence several interested parties including teachers, school districts, administrators, teacher preparation programs, and sites involved in the field trip industry.

Although, the study is exploratory in nature a constructivist framework was utilized as the lens to inform the discussion regarding the findings. Teachers often have used field trips, like any pedagogical practice, to achieve some form of student learning or motivation within a particular content area. Yet, the learning outcomes are believed to occur as a result of students’ direct, sensory interaction with real objects, people, and environments; and as they actively construct their own understandings based on those surroundings and experiences (Dewey, 1938; Piaget, 1937). As opposed to a transmission type of learning, where the learner is filled with information much like a jar is filled with water.
Literature Review

Historical Background

Field trips include any visit to an out-of-school setting and they are categorized in one of three ways: (a) academic, (b) non-academic, and (c) extra-curricular (Atyeo, 1939). Academic field trips are designed to provide students with real-world experiences so that they might gain knowledge of a particular set of content or skills. While non-academic field trips are designed to promote socialization among the students and are used as a reward (e.g. academic lunches, senior lunches, senior class trips, etc...). Extra-curricular field trips occur as a result of competitions often attributed with athletics and performing art programs (e.g. band and choral competitions) (Atyeo, 1939). Of course, students have the potential to experience educational goals with all three types of field trips and students will socialize during academic field trips as well. However, the focus and purpose of the various types of field trips is what separate them from one another. Krepel and DuVall (1981) define field trips as:

A trip arranged by the school and undertaken for educational purposes, in which the students go to places where the materials of instruction may be observed and studied directly in their functional setting: for example, a trip to a factory, a city waterworks, a library, a museum, etc... (p. 7).

Additionally, a field trip can last for minutes or for several days and can occur at professionally organized and maintained museums and science centers or unmaintained portions of nature (e.g. beaches, forests, rivers, etc...).

There are references of field trips being used that date back to ancient Rome and Greece and suggestions that field trips were advocated for by both Aristotle and Socrates (Atyeo, 1939; Krepel & DuVall, 1981). By the Middle Ages educational journeys had become a common practice for journeymen who had to travel to different regions of their countries before settling to carry out their trade (Krepel & DuVall, 1981). One of the earliest documentation of a school excursion dates back to the late eighteenth century, where a German schoolmaster periodically took his students on learning treks in order that they might “love nature, observe keenly and travel extensively” (Atyeo, 1939, p. 14).

In England, one of the first known school excursions occurred in the summer of 1877 when J. H. Cowham, a geology teacher, took 60 students to visit the Swiss Alps in order to study “live” glaciers (Atyeo, 1939, p. 27). In fact, teachers in England became so enthralled with school excursions that they started a non-profit organization in 1911 called the School Journey Association,
which is still in existence today. School excursions became popular among several other European nations as well including Austria, France, Italy, Poland, and the Soviet Union (Russia) to name a few.

In colonial America, teachers often took students outside to explore nature and visit local farms (Barone, 2008). Once the transportation infrastructure grew in America field trips began to look more like those in Europe with visits to museums, churches, and natural wonders. Eventually, educational theorists such as John Dewey (1938) and Jean Piaget (1937) began advocating for “experience-based” activities in their works. In fact, Dewey had been a longtime advocate for field trips, as was evident when he wrote in *School and Society*, “…if we could take [students] to the place where sheep are sheared, so much the better” (emphasis added) (Dewey, 1899/1952).

**Field Trips as a Pedagogical Practice**

By the early twentieth century excursions were being studied as a unique pedagogical practice. In fact, field trips were a part of the larger progressive approach in education aimed at reforming how students were taught (Windschitl, 2002). Of course, the rhetoric behind much of the progressive pedagogies was constructivism, a theory and philosophy of learning whereby students ‘construct their own learning’ (Windschitl, 2002). It is important to remember that constructivism is a theory of learning and not teaching. Although; many educational scholars then and today adhere to constructivism when developing instructional strategies those strategies are not inherently effective.

Thus, some of the first studies on field trips were developed to examine effectiveness and in Henry Atyeo’s (1939) book, *The Excursion as a Teaching Technique*, he documented the burgeoning use of field trips throughout America and sought to establish the value teachers placed on the use of them. In 1980 Jack Mason created an annotated bibliography that included 43 published works between 1921 and 1977, in which he encouraged the use of field trips due to the favorable findings on how field trips facilitated the acquisition of student learning outcomes. Indeed the majority of research found field trips as an effective educational tool for student learning outcomes including cognitive, affective, and social learning outcomes (see Anderson & Lucas, 1997; Bamberger & Tal, 2008b; Csikszentmihalyi & Hermanson, 1995; DeWitt & Storksdieck, 2008; Falk, & Dierking, 1992; Flexer & Borun, 1984; Gottfried, 1980; Knapp, 1996; Kubota & Olstad, 1991; Orion & Hoříne, 1994; Rix & McSorley, 1999; Salmi, 2003).

Additionally, students have expressed short-term and long-term cognitive and non-cognitive learning gains as a result of attending field
Secondary Teachers' Utilization of Field Trips in an Era of High-Stakes Testing: 
A Research Study

trips (Falk & Balling, 1982; Falk & Dierking, 1997; Flexer & Borun, 1984; Kisiel, 2006). For instance, in order to study the short-term effectiveness of a field trip to a museum Strum and Borgner (2010) compared the learning and motivational outcomes of sixth grade students ($N = 190$) who experienced the same educational activity but in two different learning environments, one at a field trip site and the other in a classroom. Using a pre-, post- and retention-test, Strum and Borgner (2010) sought to identify if there were any differences on students’ recall of certain facts and concepts based on the environment. The authors concluded that both the museum-group and the classroom-group experienced cognitive gains from the pre-test to the post-test; however, “…the museum-group outperformed the classroom-group in the post-test and in the retention-test” (p. 17). Thus, students who attended a field trip to a museum experienced short-term cognitive gains equal to or greater than those who did not attend the field trip.

When it comes to the long-term cognitive effects of field trips there are few studies due to the logistical challenges in collecting data; yet, one study in Italy found, using a pre- and post-questionnaire, that primary and secondary students ($N = 537$) who visited a marine biology museum, were able to retain the information they had learned for up to three months after the visit (Miglietta, Belmonte, & Boero, 2008). Additionally, Bamberger and Tal, (2008a) found that middle school students ($N = 12$) were able to recall several facts and details from a field trip they had taken sixteen months earlier to a science museum.

The long-term effects of a field trip also include non-cognitive gains. For instance, Farmer, Knapp, and Benton (2007) found that a year after a group of middle school students ($N = 30$) had experienced a field trip to the Great Smoky Mountains they were not only able to recall many plants species they had seen but also expressed a new perceived pro-environmental attitude. Furthermore, adults between the ages of 25 and 31 ($N = 8$), were able to recall several positive aspects from field trips they had taken while in school; most notably they expressed the positive influence of socializing as well as the impact that field trips had on exposing them to new careers and cultures (Pace & Tesi, 2004). In addition, Salmi (2003) conducted a survey of university students in regards to why they had chosen a science major and 20% indicated that the positive experience they recalled during field trips played an integral part in their decision.

It is also important to point out that some studies have indicated, “field trip[s] alone may not be as educationally productive as once believed” (Muse et al., 1982, p. 123). Such as when Cox-Petersen, Marsh, Kisiel, and Melber
(2003) discovered, after observing 30 visiting school groups at a natural history museum and interviewing a select number of students \((N = 85)\), that students learned only low levels of science as a result of their field trip. Although, DeWitt and Storksdieck (2008) state that:

Documented learning gains [on field trips] are often relatively small, but small effects are not surprising given the one-off nature of most school trips. Indeed, it could be argued that any gains at all are noteworthy, given the brevity of the experiences and the variety of factors that can affect the extent to which learning occurs (p. 182). DeWitt and Storksdieck’s (2008) statement is significant, as most field trip sites are developed and constructed for a public audience. Teachers intend for their students to acquire a small fraction of what the sites have to offer; although, the students often still get a full tour. The many exhibits and hands-on activities possibly cloud students’ minds thus, in some instances, may limit their short-term cognitive gains. Although, studies have proven that field trips are an effective pedagogical practice for both cognitive and non-cognitive learning outcomes it’s important to understand that perception is often seen as reality. Thus, it is also important to explore what attitudes and motivations teachers have for or against field trips.

**Teachers’ Motivations and Attitudes Towards Field Trips.**

There are multiple reasons why a teacher might use a field trip and there are any number of variables that can alter their reasons such as the grade and subject taught. In fact, Sorrentino and Bell (1970) analyzed texts and research articles by science educators and discovered their primary motivations for using field trips were: (a) providing first-hand experience to students, (b) stimulating interest and motivation in science, (c) giving meaning to learning and interrelationships, (d) teaching observation and perception skills, and (e) personal and social development of students. Additionally, teachers’ positive attitudes towards field trips, regardless of subject and grade level taught, include: (a) hands-on, real world experiences, (b) quality of education, (c) positive attitudes to the subject, (d) motivation towards the subject, (e) improvement of the socialization between students, (f) the development of rapport between teachers and students, and (g) enabling teachers to utilize teaching strategies such as cooperative learning (Fido & Gayford, 1982; Muse et al., 1982). Conversely, teachers’ negative attitudes towards field trips include: (a) difficulties with transportation and cost, (b) disparity of teachers’ skills, (c) time constraints with school schedules, (d) lack of support from school administration, (e) curriculum inflexibility, (f) poor student behavior, and (g) an inadequacy of resources or venues (Fido & Gayford, 1982; Muse et
More recently Kisiel (2005), using an open-ended response survey, investigated elementary teachers’ (N = 115) motivations in using field trips to teach science and found eight motivations. In effect, elementary teachers want to use field trips to: (a) connect with curriculum, (b) provide learning experiences, (c) promote lifelong learning, (d) foster interest and motivation, (e) expose students to new experiences, (f) provide a change of setting, (g) provide enjoyment or reward, and (h) satisfy school expectations. The results, though, are not mutually exclusive, as teachers expressed any number of motivations and not necessarily all eight motivations. In another study Marcus, Levine, and Grenier (2012) found that history teachers (N = 82) “...value museums as a means of promoting aspects of historical thinking even more highly than as a means of teaching specific content” (p. 78). In addition, the history teachers felt that field trips should be a part of the secondary curriculum.

Understanding teachers’ attitudes and motivations towards field trips is important as it may correlate directly to teachers’ utilization of field trips. Therefore, despite the fact that “many teachers may not be aware of their role in the experience and subsequently may not be taking full advantage of [the field trip] resource” (Kisiel, 2005, p. 937) these studies indicate that teachers still believe field trips are valuable for students. In fact, Kisiel (2005) found that 90% of the teachers (N = 115), who participated in his study, still recognized the field trip as being a highly valuable educational experience for students; however, one’s values do not always align with their actions.

**Teachers’ Utilization of Field Trips**

Surprisingly, there are few studies that have quantified teachers’ use of field trips. Kregel and DuVall (1981) estimated that about 10% of teachers used field trips. While, Muse et al., (1982) found that approximately 54% of the secondary teachers (N = 94) they surveyed utilized a field trip in the previous academic year. In total, 51 teachers utilized 193 field trips, which averages out to about four field trips for each of the 51 or two for all 94 secondary teachers. Additionally, at the secondary level, “[no] content area was particularly responsible for taking significantly more field trips than another content area” (Muse et al., 1982, p. 123). Moreover, Marcus et al. (2012) found that of the 94 history teachers surveyed 60% utilized a field trip during the previous academic year but 74% plan on using a field trip during the next academic year.

**Method**

**Population and Sample**

The population for this study included all secondary public school
teachers within the fields of social studies, science, mathematics, and language arts from one southeastern statin the United States of America. Unfortunately, there is no known zero for this population; however, according to the National Center for Educational Statistics, the state has approximately 175,000 public school teachers (U.S. Department of Education, 2012). Since the total included teachers who teach outside of the parameters of this study including: virtual teachers, adult-education teachers, elementary teachers, and teachers of elective subjects; a conservative estimation of the intended population then would come to about 55,000 teachers. Thus, the sample size needed for this study was calculated to be approximately 225 teachers, given a margin of error of 0.25, and a field trip mean of 3.52, which was derived using the Muse et al., (1982) study.

A multi-stage cluster sampling was used to select participants for this study, which involved first selecting clusters (i.e. schools) and then selecting individuals (i.e. teachers) (Gall et al., 2003). Since, the intended population included teachers who teach grades 6-12 there were three types of clusters: middle (grades 6-8), high (grades 9-12), and intermittent schools. To clarify, intermittent schools are schools that teach any combination of grades K-12. For example, one school might offer grades K-8, while another might offer grades 8-12. Intermittent schools were included in the clustering stage to ensure an equal sampling among the population.

Employing the National Center for Educational Statistic’s Common Core of Data, 65 schools were randomly selected from each cluster. Then utilizing each schools public website, 12 teachers were randomly selected from each school; three from each subject area (social studies, science, mathematics, and language arts). Utilizing the Tailored-Design Method, 2,190 teachers were contacted five times via email between October and December of 2013 (Dillman, Smyth, & Christian, 2009). Altogether, 282 participants provided usable responses, equating to an approximate return rate of 13%.

Instrumentation

This study utilized a researcher-developed questionnaire (See Appendix A) to obtain information from teachers concerning their use of field trips. Prior to sending out the questionnaire to the sample group the face validity of the instrument was examined by teachers who were in a graduate level course; however, the content validity of the instrument was examined by expert scholars. All those involved in the face validity were excluded from any future participation.

Data Analysis

It was determined that the data being collected; that is, the number
of field trips teachers utilized, was not evenly distributed. Therefore, non-parametric analyses were performed with either a Mann-Whitney U or a Kruskal Wallis Test depending on the number of independent variables (Stevens, 2007).

Findings

Mean, Number, and Proportion of Field Trips Utilized

Of the 282 secondary public school teachers in the fields of social studies, science, mathematics, and language arts that responded to the survey a total of 130 (46%) utilized at least one field trip in the previous academic year. Conversely, 152 (54%) respondents did not utilize a field trip in the previous academic year. However, the total number of field trips utilized by the respondents equaled 321, with a median of two. When including all 282 respondents the median dropped to zero. One hundred and fifty-five middle school teachers responded to the survey, of which 58% \((N = 90)\) accounted for 232 field trips or 72% of the overall total field trips taken. While 32% of the high school teachers \((N = 40)\), who responded to the survey, accounted for 89 (28%) of the field trips taken. Science field trips were taken most frequently at 102 times (32%) followed by integrated field trips at 59 times (18%). Social studies field trips were taken 53 times (17%) while "other", language arts, and mathematics field trips were taken 40 times (12%), 39 times (12%), and 28 times (9%) respectively.

Utilizing the standard deviation of 1.773, and assuming the sample is representative of the population, the true mean and number of field trips utilized was calculated with 95% confidence. In fact, the true mean of field trips used by the estimated 55,000 secondary public school teachers in the fields of social studies, science, mathematics, and language arts falls between 0.98 and 1.30. While, the true total number of field trips utilized falls between 54,003 and 71,397. Furthermore, given the proportion of teachers identified from the survey who used at least one field trip (46%), there is 95% confidence that the true proportion of secondary teachers who used at least one field trip is between 22,550 (41%) and 28,160 (51%).

Grade Level

The responses indicated that approximately 55% of the participants were teaching at a middle school \((N = 155)\) and 45% at a high school \((N = 127)\) at the time of the survey. Since there were two groups, a Mann Whitney U was utilized and it revealed that there was a statistically significant difference in mean rank based on grade level \((MWU = 7,045; z = 4.5; df = 282; p < .05)\). The mean rank of the middle school teachers \((MR = 155.6)\) was significantly
higher than that of high school teachers (MR = 119.5).

**Teaching Experience**

The participants’ teaching experience ranged from 1 year to 45 years. The mode was 12 years (N = 21), while the mean equaled 14 years and the median came to 12 years. The participants’ responses were categorized into five groups: (a) 1 – 4 years (N = 39), (b) 5 – 9 years (N = 66), (c) 10 – 19 years (N = 104), (d) 20 – 29 years (N = 38), and (e) 30 plus years (N = 35). Therefore, a Kruskal Wallis Test was used and it revealed that there was a statistically significant difference in mean rank based on the number of years a teacher has been in the field (x² = 9.98, df = 4, P < .05). A pairwise comparison showed that the mean rank of the teachers with the fewest years of experience (MR = 114.1), was significantly lower than then teachers with more experience including those with 5 – 9 years (MR = 144.9), 10 – 19 years (MR = 142), and 20 – 29 years (MR = 167). Yet, there was no significant difference in the mean rank with teachers who had 30 or more years of experience (MR = 136.6).

**Content Area Focus**

About 29% of the participants reported that they were primarily science teachers (N = 81). While, 26% indicated that they were language arts teachers (N = 73), 25% social studies teachers (N = 70), and 21% mathematics teachers (N = 58). However, the independent variable “content area focus” yielded seven groups. The extra three groups were added in order to account for the various content focuses teachers could utilize a field trip for including integrated, multiple-contents, and other field trips. The goal of this analysis was to determine if teachers use field trips more frequently when teaching a particular content area. That is, do teachers use field trips more frequently when they teach students social studies, science, mathematics, or language arts.

Upon closer examination, it seems middle school teachers utilized 84% of all integrated and 97% of all multiple-content field trips. Furthermore, a Kruskal Wallis Test revealed that there was a statistically significant difference in mean rank based on the content area focus of a field trip (x² = 16.45, df = 6, P < .05). A pairwise comparison showed that the mean rank of the multiple-content group (MR = 88.1) was significantly higher than the science (MR = 54.5) and social studies (MR = 59.5.3) groups. While the mean ranks of the integrated (MR = 56), language arts (MR = 61.9), other (MR = 68.3), and mathematics (MR = 70.6) groups were not significantly lower than the multiple-content group.

**Graduation From a Teacher Preparation Program**

Fifty-three percent of the participants reported that they graduated
from a teacher preparation program \((N = 148)\), while 45% did not graduate from a teacher preparation program \((N = 128)\). Unfortunately, six participants (2%) did not answer the question. Thus, a Mann-Whitney U Test showed that there was no statistically significant difference in mean rank \((MWU = 9,763.5; z = 0.5; df = 276; p > .05)\) between those who graduated from a teacher preparation program \((MR = 136.5)\) versus those you did not graduate from a teacher preparation program \((MR = 140.8)\).

**Discussion**

**Mean, Number, and Proportion of Field Trips Utilized**

The calculations for the true mean, number, and proportion of field trips utilized by the secondary public school teachers indicates that field trips are still valued by teachers. True, the lack of data from previous years limits the scope of the discussion, as one can only speculate if the value for field trips has increased or decreased over the years. Nonetheless, the numbers still hold significant weight. Any time a near majority of teachers indicate that they utilize a specific teaching technique or curriculum it quickly becomes significant.

The calculations are pertinent for several groups and for several reasons. First, teachers, like any member of a social group like to know where they fit as an individual within the larger group. This is not to say that teachers will choose to utilize field trips to be a part of the "in crowd". Certainly teachers are professionals and thus able to determine, based upon many varying circumstances, their own desire and ability to utilize field trips. Yet, the notion that such a large proportion of teachers are utilizing field trips may indicate to some that they are either under estimating the value of field trips or over calculating the risk and effort necessary to utilize a field trip. Thus, teachers who previously did not utilize a field trip may begin to examine the idea in future years. Additionally, teachers who did attend a field trip in previous years may use this information as added support for the continual, or perhaps increased, use of field trips.

Second, school and county administrators must be aware of the habits and practices of their teachers in order to determine the necessary professional development opportunities that their faculty need. The current literature regarding field trips indicates that many, if not most, teachers are ill prepared to effectively utilize field trips. In fact, of the 130 participants from this study who utilized at least one field trip only 16\% \((N = 21)\) reported having any formal training on how to organize and conduct a field trip. Therefore, school and county administrators need to make sure there are professional development
opportunities available to teachers that train them how to judiciously use field trips.

Third, teacher educators and teacher preparation programs, working with future teachers need to have an increase focus and attention put towards preparing their graduates. This is particularly true for pre-service teachers looking to teach a science discipline, as they are more likely to use the practice. Finally, sites responsible for hosting field trips; such as zoos, museums, science centers, and the like can utilize this information in planning their advertisements to increase teachers’ potential for utilizing a field trip in the future.

Grade Level

When compared to the Muse et al. (1982) study, which reported teachers’ utilization in terms of means, the results of this study indicates that the mean number of field trips utilized has been cut in half. According to Muse et al., the mean number of field trips utilized by secondary teachers in 1982 was 2.05; yet, the collective mean of middle school (M = 1.5) and high school (M = 0.7) teachers in 2013 has dropped to 1.14. The results then may confirm the speculation found in literature regarding the decline in teachers’ utilization of field trips; although, it does not specify when this trend started or if this trend is just a part of a cycle.

Teaching Experience

The results of this analysis may not be too surprising. That is, teachers with the fewest years of experience utilize field trips less often than the majority of teachers. The conclusion seems rationale for several reasons. First, new teachers are still acclimating themselves with the responsibilities and duties of becoming a highly effective educator. Second, new teachers are often less experienced about field trip opportunities. What is also interesting is to see that the group with the second lowest mean rank was those with 30 or more years of experience. Some may not be surprised by this, as there is a perception that teachers with that much experience lack the desire and energy level to plan and conduct field trips. However, this study refutes that perception, as there was no statistically significant difference between teachers with 30 or more years of experience and any other group.

Content Area Focus

The results of this analysis indicate several significant points. First, there were a larger percentage of teachers, from the sample, that use field trips to teach science (32%) rather than social studies (17%), language arts (12%), or mathematics (9%). Yet, the median number of field trips teachers use to teach science is similar to the median number of field trips used to teach mathematics, social studies, or language arts. Therefore, it would appear
that a large quantity of science teachers primarily use one field trip in a given academic year. While small quantities of mathematics, social studies, and language arts teachers utilize field trips multiple times in a given academic year.

Second, there were a larger percentage of teachers, from the sample, that used field trips to teach integrated content areas or multiple-contents at the middle school level, rather than the high school level. It would come as no surprise if a large percentage of elementary teachers used integrated or multiple-content field trips, as elementary teachers are required to teach multiple contents. However, it is a bit of a surprise at the middle school level, because this is when students often begin to learn within an isolated discipline; where different teachers teach each discipline (i.e. social studies, science, mathematics, and language arts). Perhaps the data indicates that middle school teachers utilize academic teams and attend field trips within those teams. Therefore, middle school teachers can utilize field trips that either integrate the content areas or attend multiple field trips with each addressing one of the academic team member's content area. Yet, at the same time, the data also indicates how high school teachers tend not to utilize teams and thus do not collaborate as often with one another.

Graduation From a Teacher Preparation Program

Certainly, a more in-depth discussion could have occurred if a significant difference was found between the two groups. In fact, one could argue that those who graduate from a teacher preparation program should use field trips more frequently as a result of their training. While an equal argument could be made that alternatively certified teachers bring a greater knowledge of the "real world" and thus are more aware of potential field trip destinations. Ultimately, the most valid point one can draw from the results deals with the lack of awareness teacher preparation graduates or even alternatively certified teacher receive about utilizing field trips. That is, very few future educators are taught how to properly plan and conduct field trips.

Limitations of Study

There were several limitations within this study, as is the case with any research study. The following list of limitations is offered to readers so that they can have a more complete picture of this research study.

1. The data is reflective of 6-12 public school teachers from one southeastern state in the fields of science, social studies, mathematics, and language arts. Therefore, the results of this study may not be generalizable to teachers outside of that state. Additionally,
since only teachers within the fields of social studies, science, mathematics, and language arts participated in the study the results are not generalizable to teachers outside of those content areas, even within the state.

2. The questionnaire was only concerned with teachers’ utilization of field trips during one academic year. Thus, no calculations can be made with regards to teachers’ utilization of fields prior to or after that time frame.

3. It should be noted that this study was concerned with academic field trips and as such provided a definition to the participants for clarification purposes; however, some participants expressed that they used field trips for recreational purposes. Therefore, some of the numbers regarding the number of field trips utilized by teachers for academic purposes may be inflated.

4. All the data used in this study is self-reported. For that reason, all the results were limited by the honesty and reliability of the participants who provided information for this study.

Implications

Field trips may seem like an ill-conceived topic to study, especially given the high-stakes; standardized testing that has surrounded the educational arena for the past decade. This research study though has a couple of important implications that relate directly to the standardized educational system. The first implication relates to the perceived value that teachers have towards the use of field trips. Teachers have long used field trips as a means of requiring students to gather pertinent experiences about a particular topic of study. Teachers would also use field trips as a means for students to gather data that they would bring back to the classroom for further examination and exploration.

Nonetheless, with the added accountability that teachers face with the inception of high-stakes testing associated with the standards-based educational reforms, most notably in the United States of America, the No Child Left Behind Act, teachers are forced to defend their utilization of field trips and treat the technique as an extra-curricular activity. Of course, requiring teachers to defend their utilization of field trips is not necessarily a bad thing. In fact, defense of ones practices is a good thing, as it assures that teachers do not get stuck in a “we have always done it that way” mentality. Yet, despite the increase in high-stakes testing, the results of this research study suggest that the majority of teachers still value the utilization of field trips in a child’s education; because they undoubtedly still believe in a constructivists learning
theory. This is supported by the fact that approximately 46% of the teachers used at least one field trip in the previous academic year. However, it seems teachers cannot rationalize the utilization of numerous field trips, as the number of field trips teachers utilized was just over one per year.

In 1982, Muse et al., stated, "...teachers will continue to utilize the field trip as one of their instructional strategies. They will continue to do so at a reasonably high rate and in spite of the economic and organizational hassles they perceive" (p. 124). Yet, it seems Muse et al. (1982) was wrong. Teachers are not continuing to utilize field trips at a reasonably high rate; remember two field trips at the secondary level were considered a reasonably high rate. Today the largest hurdle teachers face with field trip utilization is the increased accountability tied to students' test scores, as that takes time. Certainly, there are several factors other than time that contribute to the underutilization of field trips such as finances and logistical concerns but there is no doubt that if teachers felt as if they had time to use field trips they would surely find the money and deal with any logistical concerns, just as Muse et al., (1982) predicted.

Interestingly, the students who are in schools today have always been under the "high-stakes" umbrella, which determines the value of education as being transferrable data that usually comes as a score on a test that seeks to measure students' rote learning and memorization. In fact, nowhere in the No Child Left Behind Act does it require, or even suggest, teachers use field trips to teach students. Meanwhile, educational theorists have long placed a high value on a constructivist learning theory.

Additionally, the majority of teachers in this study have taught under the "high-stakes" umbrella, while at the same time being taught to value a constructivist learning theory. What's more, many states, including the one where the study was conducted, are beginning to move to a "merit pay" system, whereby teachers' evaluations are partially tied to student test scores. Therefore, it would seem logical to predict that the proportion of teachers utilizing field trips and the number of field trips they utilize will dwindle in the coming years.

The second implication is about the small percentage of teachers that have received any formal training dealing with field trips. Only 16% of the teachers that utilized a field trip in the previous academic year received any formal training. However, if a large proportion of teachers want to continue to utilize field trips and if one ever hopes to increase the frequency with which teachers use field trips, then teachers will need some kind of formal training.

Research on field trips suggests that teachers utilize field trips to help
with student learning, which can occur in the cognitive, affective, and social domains. Furthermore, student learning is an active process that occurs as the result of direct, sensory interaction with real objects, people, and environments. Of course, student learning does not only occur when students attend field trips; nevertheless, field trips offer an abundance of direct interaction with real objects, people, and environments.

Whether in a classroom or on a field trip, optimal student learning does not occur by happen chance. In fact, to believe that students who attend a field trip are guaranteed to learn large quantities of information is asinine. Will students who merely attend a field trip learn to some degree? Yes, but the same can be said about students who merely attend a classroom; yet, it is not believed to be a best practice. Teachers need to learn how to plan and conduct a field trip. They need to learn how to optimize student learning as a result of students attending a field trip.

Therefore, schools, school districts, alternative certification programs, and teacher preparation programs need to create and offer formal training on the necessity of utilizing field trips. The trainings should include, but not be limited to, teaching teachers how to (a) build a rationale for field trips, (b) locate appropriate sites based on a teacher’s grade level and subject area, (c) properly and efficiently deal with logistical concerns, and (d) create activities and assessments within the various field trip atmospheres. Field trips should not be treated like an extra-curricular benefit for those who have time and money but it should be treated as an essential part of a student’s curriculum.

Conclusion

In sum, a large proportion of teachers still utilize field trips; yet, the frequency with which they use them has decreased since the last known study was conducted in 1982. Additionally, only a small percentage of teachers have received any formal training on how to plan and conduct field trips. Middle school teachers utilized field trips more frequently than high school teachers. While field trips were used to teach science by a larger proportion of teachers than any other subject; yet, the median number of field trips taken is approximately equal to that of any other subject. Furthermore, teachers need assistance with building a rationale for utilizing field trips; as well as training in how to plan and conduct field trips.
Notes
1 All percentages were rounded to the nearest whole number

References


# APPENDIX A: INSTRUMENT

<table>
<thead>
<tr>
<th></th>
<th>What grade level do you currently teach?</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>A. Middle (grades 6-8)</td>
<td>B. High (grades 9-12)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>What subject do you teach?</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>A. Science</td>
<td>B. Mathematics</td>
</tr>
<tr>
<td></td>
<td>C. Social Studies</td>
<td>D. Language Arts</td>
</tr>
<tr>
<td></td>
<td>E. Other (If other, they will be taken to the end of the survey)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>How many field trips did you utilize during the previous academic year?</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.</td>
<td>A. 0</td>
</tr>
<tr>
<td></td>
<td>B. 1</td>
</tr>
<tr>
<td></td>
<td>C. 2</td>
</tr>
<tr>
<td></td>
<td>D. 3</td>
</tr>
<tr>
<td></td>
<td>E. 4</td>
</tr>
<tr>
<td></td>
<td>F. 5</td>
</tr>
<tr>
<td></td>
<td>G. Write in the number if more than 5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>What was the content area focus for each of the field trips you took your students on during the previous academic year?</th>
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</thead>
<tbody>
<tr>
<td>5.</td>
<td>Please click all the content focuses that apply and write in the number. For example if you utilized three field trips you would pick all the content areas that those three field trips were focused on and write the number for each content (e.g. 2 mathematics and 1 science)</td>
</tr>
<tr>
<td></td>
<td>Science_______</td>
</tr>
<tr>
<td></td>
<td>Mathematics_______</td>
</tr>
<tr>
<td></td>
<td>Social Studies_______</td>
</tr>
<tr>
<td></td>
<td>Language Arts_______</td>
</tr>
<tr>
<td></td>
<td>Integrated_______</td>
</tr>
<tr>
<td></td>
<td>Other_______</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>What is your gender?</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.</td>
<td>A. Female</td>
</tr>
<tr>
<td></td>
<td>B. Male</td>
</tr>
<tr>
<td></td>
<td>C. Choose not to say</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>What do you identify your race/ethnicity as being?</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.</td>
<td>A. Black/African American</td>
</tr>
<tr>
<td></td>
<td>B. Asian or Pacific Islander</td>
</tr>
<tr>
<td></td>
<td>C. Hispanic/Latino(a)</td>
</tr>
<tr>
<td></td>
<td>D. Whaite/Caucasian</td>
</tr>
<tr>
<td></td>
<td>E. Native American or Native Alaskan</td>
</tr>
<tr>
<td></td>
<td>F. Other</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>How many years of teaching experience do you have?</th>
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</thead>
<tbody>
<tr>
<td>9.</td>
<td>Write your response in the space provided</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Did you graduate from a four-year teacher preparation program?</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.</td>
<td>A. Yes</td>
</tr>
<tr>
<td></td>
<td>B. No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Did you receive any formal training on how to plan and conduct field trips?</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.</td>
<td>A. Yes</td>
</tr>
<tr>
<td></td>
<td>B. No</td>
</tr>
</tbody>
</table>

|12.| Thank you; please feel free to write any comment or questions you have regarding the study in the space below. |