

Clark County School District Teacher Survey: Attitudes, Perceptions, Barriers, and Desires for Field Trip Experiences

TABLE OF CONTENTS

| | |
|--|----|
| INTRODUCTION | 2 |
| METHODS | 2 |
| RESULTS | 4 |
| Demographic Characteristics..... | 4 |
| Planning and Taking Field Trips | 4 |
| Where Respondents Go for Field Trips | 7 |
| What Makes a Successful Field Trip..... | 7 |
| Desired Field Trip Subject and Topic Areas | 10 |
| Resources to Plan and Implement a Field Trip..... | 11 |
| Barriers to Taking a Field Trip..... | 13 |
| DISCUSSION..... | 18 |
| Recommendations for area-wide IE site educators, | 19 |
| as suggested by the survey results:..... | 19 |

Clark County School District Teacher Survey: Attitudes, Perceptions, Barriers, and Desires for Field Trip Experiences

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INTRODUCTION

Field trip opportunities are plentiful throughout Clark County, Nevada, including museums, parks, and designated locations within the nearly seven million acres of public lands surrounding the Las Vegas metropolitan area. The majority of these field trip destinations, which this paper will refer to as Informal Education (IE) sites, have education teams that can create and deliver programs and/or tours for classes. Many also offer professional development opportunities for teachers. Although the IE sites are rich in natural and cultural resources and provide abundant opportunities for authentic learning experiences, teachers may not think of some of the sites as prime destinations for a field trip. For example, a teacher used to conducting a field trip to a museum may not understand how to conduct a field trip to Red Rock Canyon National Conservation Area or Lake Mead National Recreation Area. This fact, along with academic and financial pressures facing many teachers, may affect the attitudes and perceptions that teachers have about field trips in the Las Vegas area, as well as the types of barriers that might prevent teachers from taking field trips.

A survey instrument was designed to determine what types of science and cultural programming will be most useful to Clark County School District (CCSD) teachers, how to structure and deliver this programming, how teachers use field trips with respect to academic and testing requirements, and how to best develop professional development opportunities. It is hoped that this survey analysis will allow IE site education staff to tailor programs to meet the needs of this specific audience and address barriers that may be preventing teachers from taking field trips. Ideally, this information will help Clark County IE sites create experiences that will have significant and lasting impacts on student learning.

The survey, sponsored by the Clark County School District office of K-12 Math, Science and Instructional Technology, was delivered to Clark County School District teachers between October 2005 and June 2006. A total of 124 teachers participated in this survey.

METHODS

The survey instrument was designed by the Public Lands Institute at the University of Nevada, Las Vegas in partnership with the Southern Nevada Agency Partnership (SNAP) and funding from the Southern Nevada Public Land Management Act. Input was solicited from a variety of IE site educators and CCSD personnel. The survey is included in Appendix I.

Because of the involvement of SNAP, which is comprised of the four federal land-management agencies, several survey questions specifically referenced field trips to public land sites. However, the results can be generalized to other IE sites in Clark County.

The original sampling protocol involved sending a letter soliciting participation to a randomly chosen, stratified sample of about 900 CCSD teachers (grades K-12). In the letter, teachers were given background information and directed to email the survey administrator to receive instructions and a password to access a website housing the survey. Only ten teachers chose to participate using this protocol during the months of October and November 2005.

The survey sampling protocol was therefore adjusted. Beginning November 2005, participation was solicited from groups of science teachers attending professional development training sessions through the Clark County School District office of K-12 Math, Science and Instructional Technology. During the course of the professional development, a neutral facilitator briefly explained the purpose of the survey and then handed out the consent form and the survey to teachers volunteering to participate. No identifiers were associated with the survey. From November 2005 through June 2006, a total of 114 teachers participated in the survey using this protocol, giving a total sample size of 124 teachers.

Demographic information collected from survey respondents included the grade level taught, the CCSD region in which the respondent worked, the number of years taught in the CCSD, as well as the total number of years in teaching. Respondents were also asked to give number of students to plan for when taking a field trip and the number of field trips taken per year.

Respondents reflected on their most successful field trip (in Clark County or not) and described what made it a success. Respondents were asked to rate, on a five-point Likert scale, the usefulness of various field trip subject areas, topic areas, and resources that might be used to plan and implement a field trip. Respondents also rated, using a five-point Likert scale, to what degree a series of possible barriers applied to their individual situation. Respondents were asked if they would be comfortable leading their own field trip without assistance from agency staff. Finally, respondents were asked to indicate the best ways to contact them with information about field trips.

RESULTS

Demographic Characteristics

About 40 percent of the survey respondents were elementary school teachers (preK - 5), 37 percent were middle school teachers (6th - 8th), and 16 percent were high school teachers. Three respondents were involved with a combination of these (e.g., middle school and high school) while six did not indicate what grade level they taught (Table 1).

Table 1. Distribution of survey participants according to grade level taught in the CCSD.

| Grade Level Taught | Number of Teachers |
|--------------------|--------------------|
| Elementary | 49 |
| Middle School | 46 |
| High School | 20 |
| Other | 3 |
| Unknown | 6 |
| Total | 124 |

The mean number of years that respondents have taught at CCSD is 6.9 years (SD=5.7). Note the large standard deviation (SD), a reflection of the huge variability in teacher demographics in this rapidly growing school district. Fifty-three survey participants have taught in other districts for an average of 8 years (SD = 7.1). Clark County School District is divided into five geographic regions: Northwest (62 schools), Northeast (59 schools), East (52 schools), Southeast (64 schools), and Southwest (57 schools). Each region is led by a region superintendent, and each region is expected to tailor programs and services to the needs of its community. Thirty-six percent of respondents worked in the NE region, while 14 percent worked in the East, 19 percent in the NW, 15 percent in the SE, and only 9 percent in the SW (Table 2).

Table 2. Distribution of survey participants according to CCSD region.

| Region | Number of Teachers |
|-----------|--------------------|
| East | 15 |
| Northwest | 21 |
| Northeast | 40 |
| Southwest | 10 |
| Southeast | 17 |
| Other | 7 |

Planning and Taking Field Trips

Thirty-five percent of respondents reported taking more than 2 field trips per year, while 37 percent took one field trip per year and 28 percent did not take any (Table 3).

Table 3. Distribution of survey respondents according to the number of field trips taken per year.

| Number of Field Trips per Year | Number of Teachers |
|--------------------------------|--------------------|
| 0 | 35 |
| 1 | 46 |
| 2-3 | 41 |
| 4-5 | 2 |

The number of field trips reportedly taken does not depend on either the number of years respondents have taught at CCSD (ANOVA, $p=0.39$) or the total number of years they have taught (ANOVA, $p=.27$). As well, the number of field trips taken is not related to whether or not the respondent has taught at another school district.

However, the number of field trips taken by respondents is significantly related to what region that respondent teaches in (χ^2 , $p=.0025$), with those in the NE region more likely to take a field trip. The number of field trips taken – and the likelihood of taking a field trip at all -- is significantly related to whether the respondent teaches an elementary grade (K-5) or a secondary grade (6-12) (χ^2 , $p < 0005$). Those teaching elementary school are most likely to participate in field trips, while those teaching high school are least likely.

Only 34 percent of respondents reported the luxury of planning a field trip for 30 students or fewer, while 15 percent plan for up to 50 students. The remaining respondents (51%) must plan for 50-200 students (Table 4). The average field trip size is 86 students (SD=70.4).

Table 4. Distribution of survey respondents according to the number of students attending a field trip.

| Number of Teachers | Number of students to plan for a field trip |
|--------------------|---|
| 40 | 30 students or fewer |
| 17 | 31-50 students |
| 14 | 51-100 students |
| 22 | 101-150 students |
| 24 | > 151 students |
| Average | 86 (SD=70.4) |

Interestingly, how many field trips a respondent is likely to take is not dependent on the number of students the respondent would have to plan for (ANOVA, $p=.059$). Nor does the number of students affect the overall likelihood of taking a field trip (t-test, $p = .27$).

Forty-three percent of respondents stated that spring is the preferred time of year for taking a field trip, while 28 percent did not have a preference and 17 percent cited spring or fall as good times for a field trip (Figure 1).

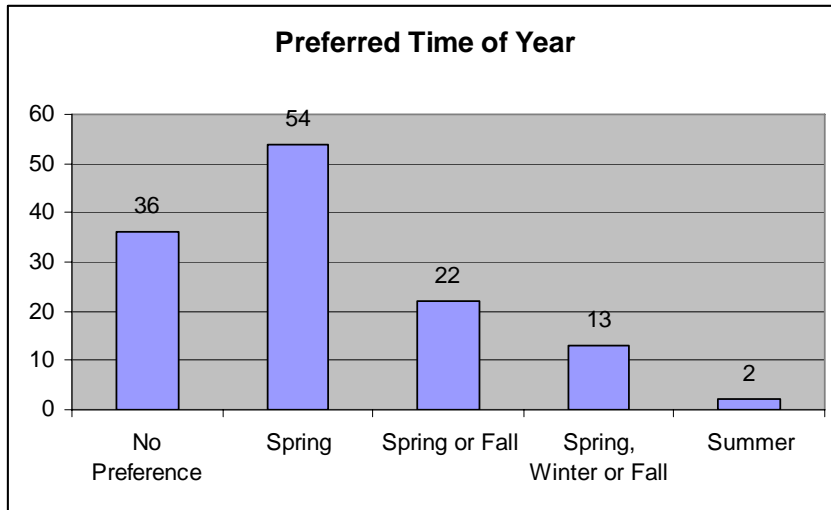


Figure 1. Preferred time of year for taking field trips.

Sixty-one respondents agreed that “if provided with adequate training” (this question is located on the last page of the survey) they would be “comfortable conducting and facilitating your own field trip without assistance from agency staff,” while 21 respondents gave a more qualified yes. Forty-two respondents stated they would not be comfortable leading their own field trip.

On the last page of the survey, respondents were asked to list the best ways to contact them with information regarding field trips to public lands. The preferred means of contact are through the CCSD Interact website (82%), email (65% of elementary teachers and 52% of secondary teachers), and a resource guide describing field trips and activity ideas (41% of elementary teachers and 37% of secondary teachers) (Table 5). Less preferred means of contacting teachers include direct mail, through team leads, through administrators, and by word of mouth from other teachers.

Table 5. Preferred means of contacting teachers with information about field trips.

| <i>Interact</i> | <i>Direct Mail</i> | <i>Email</i> | <i>Resource Guide</i> | <i>Team Lead</i> | <i>Administrator</i> | <i>Other Teachers</i> |
|-----------------|--------------------|--------------|-----------------------|------------------|----------------------|-----------------------|
| 102 | 24 | 71 | 46 | 18 | 12 | 12 |

Where Respondents Go for Field Trips

Nearly half of all respondents reported taking field trips to at least one of four public land sites in Clark County -- Red Rock Canyon National Conservation Area, Lake Mead National Recreation Area, Spring Mountains National Recreation Area, and/or Desert National Wildlife Refuge (Table 6).

Table 6. Number of teachers taking field trips to public lands sites.

| <i>Public Land Site</i> | <i>Number of Teachers</i> |
|-------------------------|---------------------------|
| Lake Mead NRA | 21 |
| Red Rock Canyon NCA | 24 |
| Desert NWR | 4 |
| Spring Mountains NRA | 12 |
| TOTAL | 61 |

Because of the involvement and interest of the Southern Nevada Agency Partnership, the hypothesis was tested that teachers who have been in the school district a long time would be more familiar with field trip destinations located on public lands and therefore more likely to visit these sites for a field trip. This hypothesis is not supported by the survey findings, as the likelihood of visiting these sites is not related to the number of years taught at CCSD (ANOVA, $p=.39$), or the total number of years teaching (ANOVA, $p=.79$).

When asked to list the place, in Clark County or not, where their most successful field trip occurred, a total of 44 different site locations were listed by respondents. Thirty of these were chosen a single time, while 18 sites were given as an example by more than one respondent (Table 7).

What Makes a Successful Field Trip

A variety of answers were listed in response to the question: “what made (your most successful) field trip a success?” These responses were sorted into 12 different categories (see Figure 2). A single response could include several different factors that contributed to the success of the field trip; each time a factor was cited it was recorded, thus the total is greater than 124. The category “Content/Curriculum” included program components or topics (e.g., “physics”) and if the field trip met curriculum or other educational requirements. Factors were listed as “Experiential” if respondents mentioned things like “hands-on,” “active learning,” and “engaging.”

Overall, factors that seem to be most important are the content and experiential quality of field trip activities. The setting itself seems to play an important role, and a site that is “fun, interesting, and/or new” is likely to make for a successful field trip. A well-planned and organized field trip also contributes to the success. The presenter, type and diversity of activities, pre-trip activities, and age-appropriateness of the field trip were important to fewer respondents. Two respondents each cited the importance of being able to accommodate a large number of students and to host the field trip at no expense.

Table 7. Sites chosen as successful field trip destinations (in Clark County or not).

| Destination sites listed by multiple respondents (# times listed in parentheses) | Destination sites listed by a single respondent |
|--|---|
|--|---|

| | |
|---|--|
| Clark County Heritage Museum (7) | Adventuredome Las Vegas |
| LV Museum of Natural History (6) | Anderson Dairy |
| Red Rock Canyon NCA (5) | Aquarium at The Forum Shops |
| Shark Reef (5) | Atomic Testing Museum |
| Spring Mountain NRA, Mt. Charleston (5) | Bonnie Springs |
| Jason Project (4) | Circus Circus Hotel |
| Catalina Is. Marine Institute (3) | City Hall |
| House of Blues (3) | Combination museum-park |
| Lake Mead (3) | El Dorado Canyon Mine |
| McCaw School of Mines (3) | Ely, NV |
| CCSN Planetarium (2) | Ethel M's living wastewater treatment |
| Clark County Wetlands Park (2) | Forever Earth |
| Floyd Lamb State Park/Tule Springs (2) | Great Unconformity, Frenchman Mtn. |
| Hoover Dam (2) | Guggenheim Museum |
| Las Vegas Wash (2) | Las Vegas Wash |
| Lied Discovery Museum (2) | Mormon Fort |
| Valley of Fire State Park(2) | Nellis AFB, Sam Boyd |
| The Viceroy Mines by Searchlight (2) | Park - Kite Day |
| | Sandy Hook, NJ |
| | Science Museum of MN |
| | Six Flags Magic Mountain, Valencia, CA |
| | Space Museum |
| | Spring Mountain Ranch State Park |
| | Springs Preserve |
| | UNLV |
| | Yucca Mountain |
| | Zion National Park |
| | Zoo |

Respondents were asked to reflect on the importance of field trips with respect to academic standards and testing requirements. A separate question asked respondents if they actually *use* field trips in this way (Figure 3). Participants ranked, on a five-point Likert scale, whether they agreed with the statements, “I think it is important that field trip experiences relate back to the content knowledge and process skills for which students are held accountable” and “I use field trips to help meet curricular objectives set by state standards” (Figure 2).

The majority of respondents agreed that field trips should support classroom content and skills on which students will be tested (mean = 4.77; median = 5; SD = .76). Interestingly, relatively fewer respondents agreed that they actually use field trips to meet state standards (mean = 3.88; SD = 1.16) (Figure 3). It should be noted that CCSD creates its own standards based on state and national standards. However, many of the district standards, including the Science Standards, are being revised, a process that has taken several years. In lieu of access to these district standards, the choice was made to refer to state standards in this question.

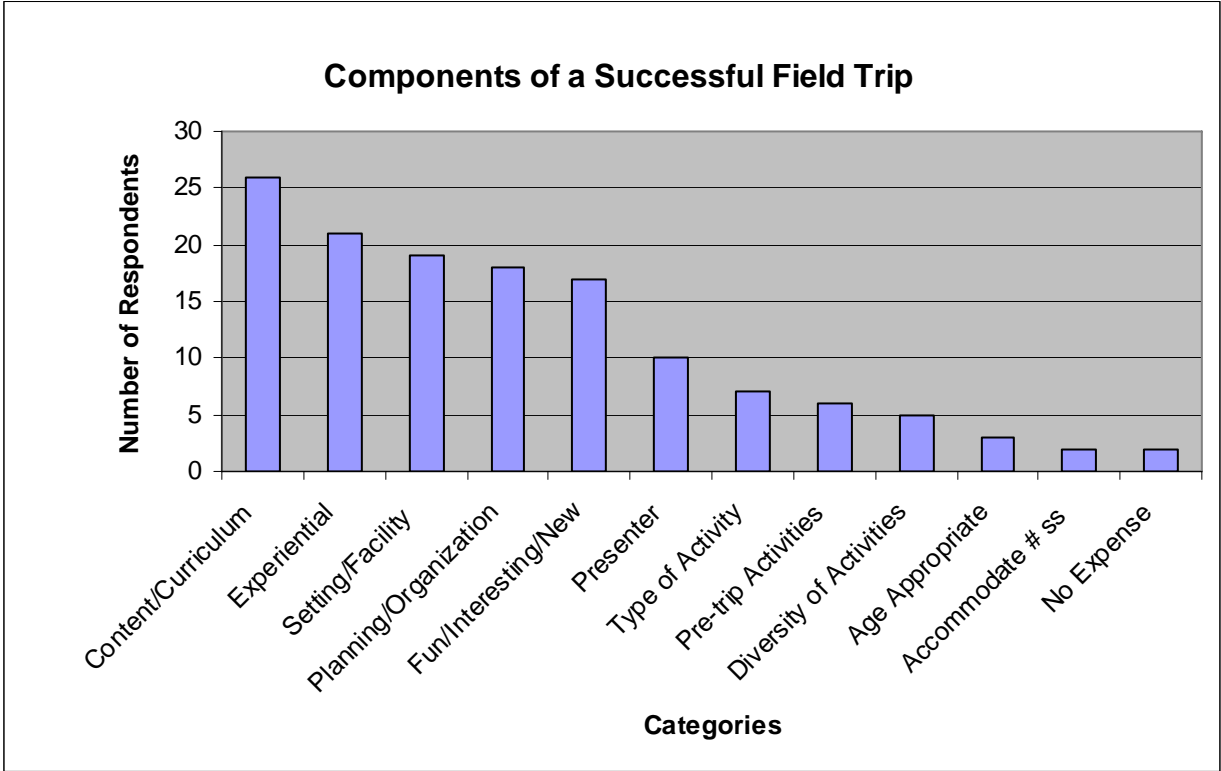


Figure 2. Factors cited as successful field trip components.

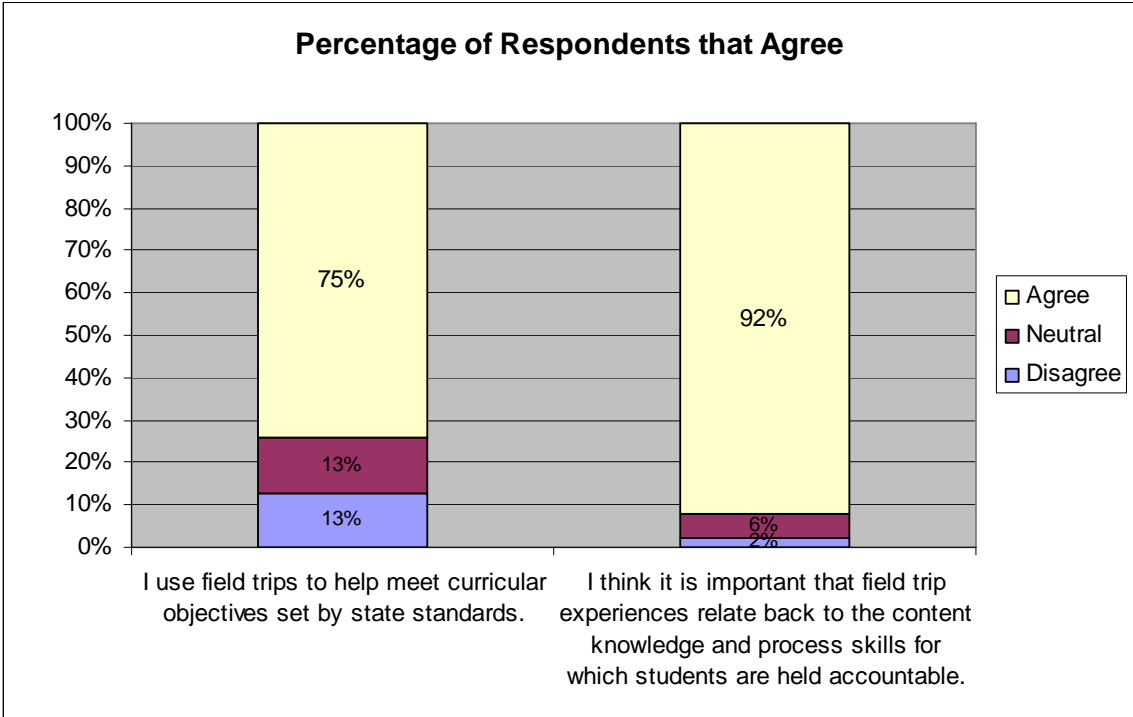


Figure 3. Importance of field trips with respect to academic standards and testing requirements.

Desired Field Trip Subject and Topic Areas

A variety of possible subject area and topic goals can be addressed during the course of a field trip. Potential field trip subject areas (the general theme of the field trip) and topic areas (the specific content covered during the course of the field trip) were gathered from two main sources: 1) state standards and 2) core themes created by a cooperating partnership of informal educators (Partners for Education about the Environment) in Clark County. Respondents were asked to rank the usefulness of possible subject and topic area goals by using a 5-point Likert scale, with “1” being not at all useful and “5” being extremely useful.

Ninety-three percent of respondents agreed that involving students in the process of science is an important subject area for a field trip (mean = 4.6, SD = .69) (Figure 4). This subject area goal is aligned with the mandates of the Clark County School District office of K-12 Math, Science and Instructional Technology, the group that helped deliver the survey instrument. Interestingly, a striking 80 percent agreed that protecting our fragile resources/instilling a sense of stewardship would be a useful field trip goal (mean = 4.3, SD = .79). This subject area meets one of the four core themes agreed upon by the Partners for Education about the Environment.

It should be remembered the majority of survey respondents were involved in science professional development events when they took the survey, so perhaps it is not surprising that subject areas such as cultural history/social studies (mean = 3.6, SD = 1.2) and field trips that integrate science with math and language arts (mean = 3.8, SD = 1.01) enjoyed relatively less support. 73% of respondents agreed that ecology/interactions/transfer of energy would be a useful subject area (mean = 4.0, SD = .99), and 66% supported the subjects of genetics/inheritance/diversity of organisms (mean = 3.9, SD = 1.04).

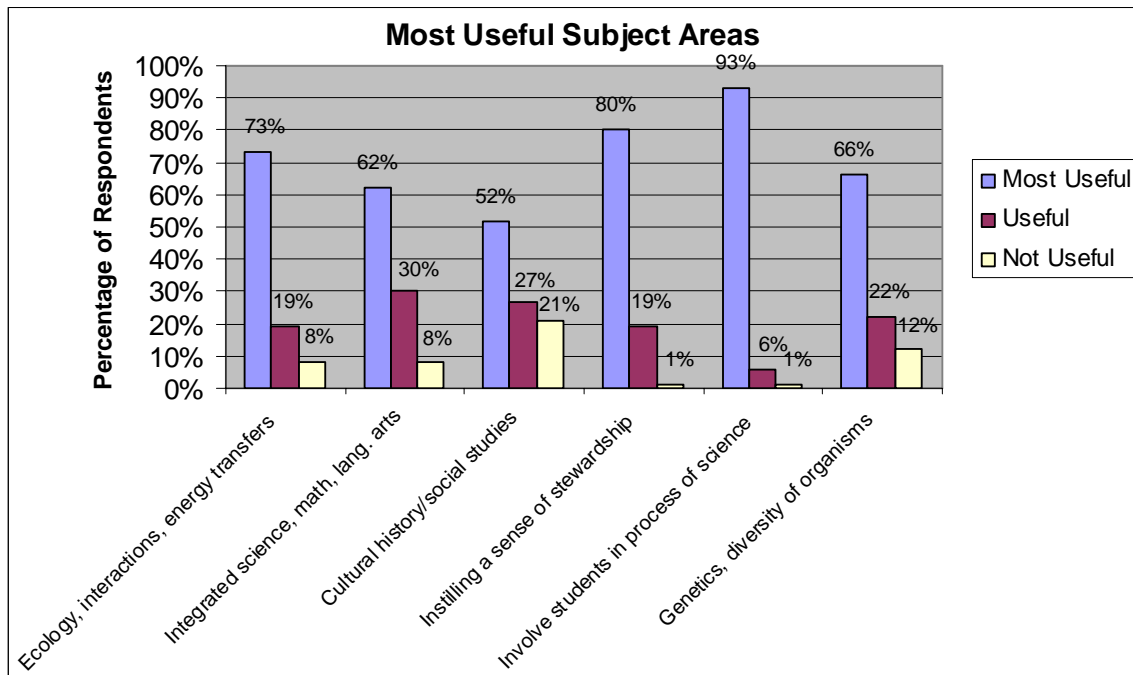


Figure 4. Most useful subject areas for a field trip.

Several of these subject areas are age-appropriate – that is, they are best addressed at specific grade levels. Therefore, the hypothesis was tested that the perceived usefulness of a given subject area will depend on the grade level taught by the respondent. The survey revealed no significant relationship between the grade level taught and the usefulness of the subject areas of ecology/interactions/transfer of energy; involving students in the process of science; or instilling a sense of stewardship. However, elementary teachers were more likely to want field trips that integrate science, math, and language arts or that address cultural history/social studies. To a lesser extent, secondary teachers were more likely to agree that genetics/inheritance/diversity of species is a useful field trip subject area (Table 8).

Table 8. Does usefulness of subject area depend on grade level taught?

| Elementary (K-5) | | | | | | |
|------------------|---------|------------|----------------|-------------|--------------------|----------|
| | Ecology | Integrated | Social Studies | Stewardship | Process of Science | Genetics |
| Most useful | 72% | 76% | 76% | 72% | 90% | 59% |
| Useful | 21% | 21% | 21% | 28% | 10% | 21% |
| Not useful | 7% | 3% | 3% | 0% | 0% | 21% |
| Secondary (6-12) | | | | | | |
| Most useful | 74% | 42% | 36% | 79% | 94% | 68% |
| Useful | 15% | 45% | 28% | 17% | 2% | 23% |
| Not useful | 9% | 11% | 32% | 2% | 2% | 8% |

Eighty-two percent of respondents ranked the field trip topic area of ecosystems (the influence of climate and topography in creating different ecosystems and influencing the plants and animals that live there) as either extremely useful or very useful (mean = 4.1, SD = .94) (Figure 5). The Mojave Desert ecosystem was also deemed a useful topic area to cover in a field trip (mean = 4.1, SD= 1.04), as were the topics of water quality and conservation (mean = 4.2, SD = .89) and adaptations (structures that help plants and animals survive in their habitat) (mean = 4.0, SD = 1.04). These topic areas are aligned with both state standards and the overarching themes agreed upon by the Partners for Education about the Environment.

As mentioned previously, several of these topic areas are age-appropriate, so the hypothesis was tested that the perceived usefulness of a given topic area will depend on the grade level taught by the respondent (Table 9). Animal classification and life cycles were topic areas most useful to elementary grade levels, as was the topic of adaptations. As would be expected, geology and desert soils seemed to be relatively more useful to middle and high schools. There was no relationship between grade level and the usefulness of the topics of ecosystems and water quality and conservation.

Resources to Plan and Implement a Field Trip

When asked which resources would be helpful for planning and implementing a field trip to public lands around Las Vegas, 95 percent of respondents agreed that a transportation scholarship to pay for buses would be either “extremely useful” or “very useful” (mean = 4.8, SD = .6). Other resources that more than 85 percent of respondents thought would be either “extremely useful” or “very useful” included a website with interdisciplinary activity sheets and background information; a website with resources to help plan a field trip, interdisciplinary activity sheets or journal pages for

students to complete during a field trip; and a guide or naturalist to help teach students during a field trip (Figure 6).

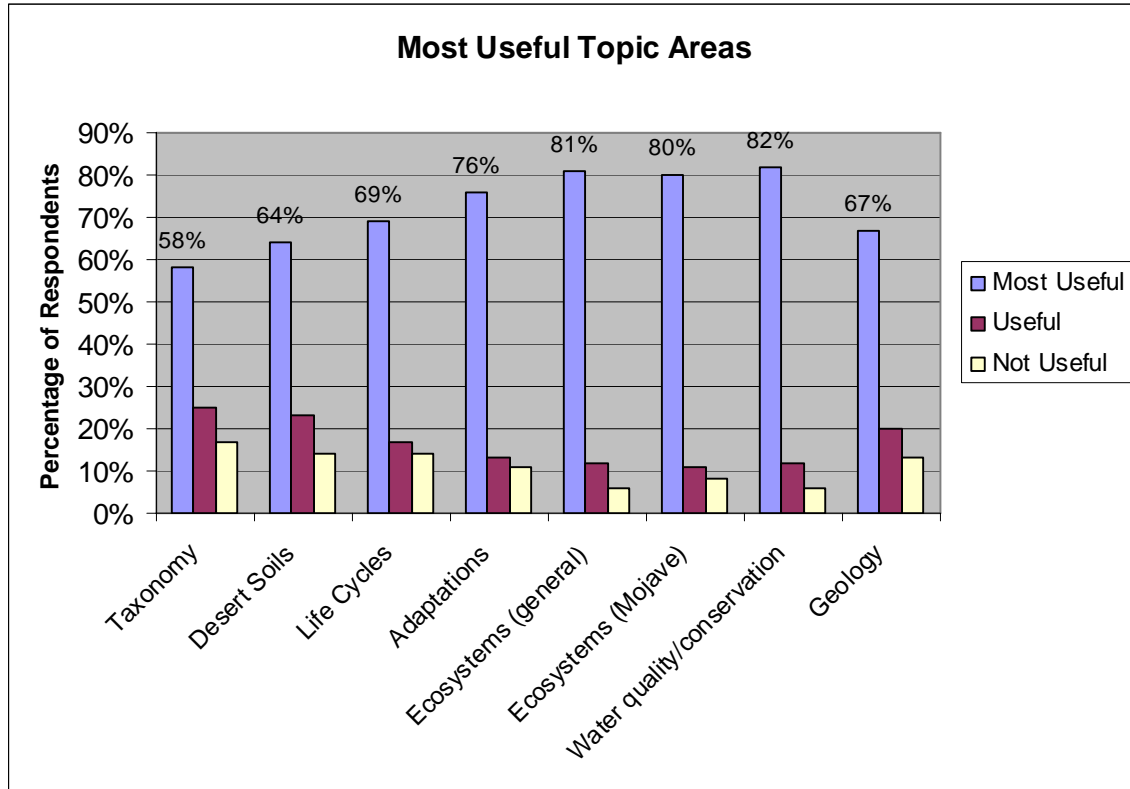


Figure 5. Most useful topic areas for a field trip.

Table 9. Does usefulness of topic area depend on grade level taught?

| Elementary (K-5) | | | | | | | | |
|--------------------------------|----------------|-------|-------------|-------------|----------------------|---------------------|-------|---------|
| | Classification | Soils | Life Cycles | Adaptations | Ecosystems (General) | Ecosystems (Mojave) | Water | Geology |
| Extremely or Very Useful | 70% | 50% | 90% | 87% | 80% | 73% | 77% | 53% |
| Useful | 23% | 30% | 7% | 10% | 10% | 20% | 13% | 30% |
| Minimally or Not at All Useful | 3% | 17% | 0% | 0% | 7% | 3% | 7% | 13% |
| Secondary (6-12) | | | | | | | | |
| Extremely or Very Useful | 47% | 66% | 51% | 66% | 79% | 87% | 81% | 66% |
| Useful | 25% | 19% | 25% | 15% | 9% | 11% | 11% | 17% |
| Minimally or Not at All Useful | 26% | 13% | 23% | 17% | 8% | 9% | 6% | 15% |

There was a clear relationship between perceived usefulness of a resource and grade level taught (Table 9). Elementary teachers were more likely to agree that *all* of the

resource options would be either “extremely useful” or “very useful,” although a “resource suitcase or kit I can check out and use before, after or during a field trip” was deemed somewhat less useful relative to other resource options, as was a website with logistical information or “interdisciplinary activity sheets, journal pages, or ideas for students to complete during the field trip.”

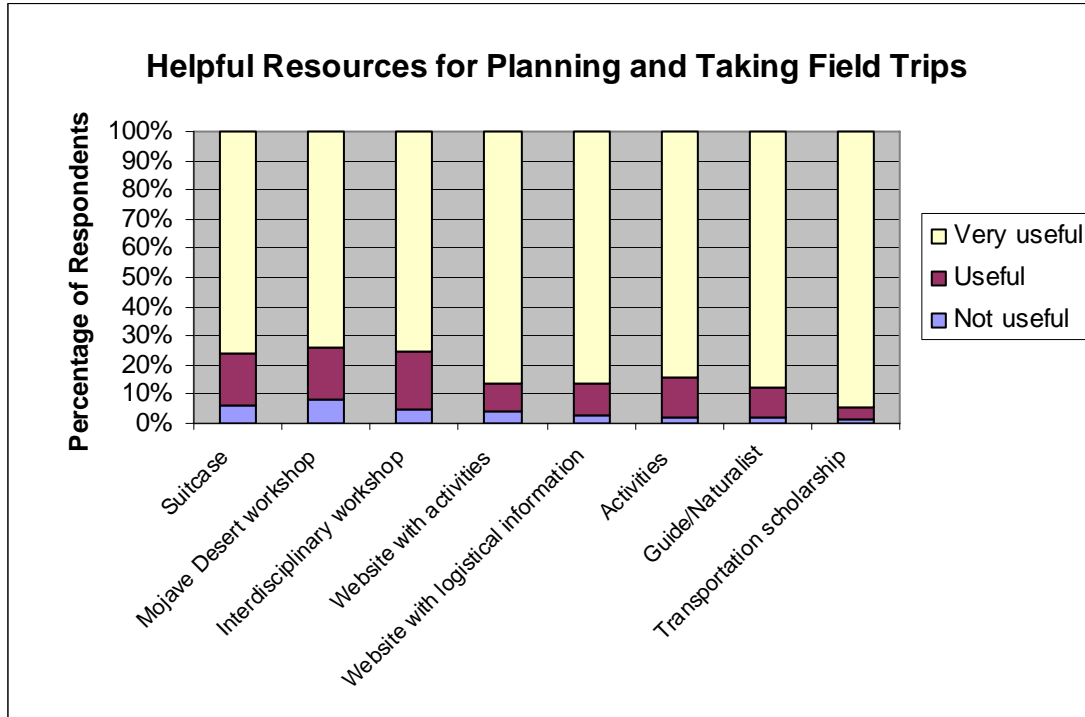


Figure 6. Most useful resources for planning and taking field trips.

Web-based resources and student activity sheets were relatively more useful to middle school and high school teachers compared to other resource options. It appears that middle and high school teachers would be less likely to participate in teacher workshops or to desire a guided tour or activity during the field trip than elementary teachers (Table 10).

Table 10. Does usefulness of resource depend on grade level taught?

| Elementary (K-5) | | | | | | | | |
|--------------------------|----------|---------------|----------------|------------------|-----------------|------------|-------|---------------|
| | Suitcase | Desert Wkshop | General Wkshop | Web (activities) | Web (logistics) | Activities | Guide | Transport. \$ |
| Extremely or Very Useful | 84% | 92% | 90% | 92% | 84% | 84% | 92% | 96% |
| Secondary (6-12) | | | | | | | | |
| Extremely or Very Useful | 72% | 62% | 67% | 83% | 89% | 85% | 62% | 77% |

Barriers to Taking a Field Trip

Respondents were asked to examine a list of statements representing potential barriers to taking field trips and indicate to what degree each statement applied to the respondents’ situation, with “1” indicating the statement never applied and “5” indicating the statement always applied.

Potential barriers can broadly be distributed into the following categories: a) transportation; b) testing and standards; c) student management; and d) scheduling.

a) Transportation issues represented the largest barriers facing teachers, especially the expense of buses (mean = 3.9, SD = 1.1) and the fact that buses are often not available for the number of hours needed for a field trip to areas such as Red Rock Canyon or Lake Mead (mean = 3.8, SD = 1.2). As well, 81 percent of respondents agreed that “my students can’t afford to take field trips” sometimes, often, or always (Figure 7).

b) Testing and standards. Teachers agreed that field trips can help fulfill state and district standards -- in fact, this statement was least likely to be perceived as a barrier (mean = 1.8, SD = .82). Respondents were somewhat more likely to indicate that “field trips do not help me prepare students for testing,” as 34 percent said this sometimes, often, or always applied (mean = 2.2, SD = 1.1). Most respondents agreed that field trips relate to their curriculum, but 51 percent indicated that “there is no support available to help me integrate field trips into my curriculum” sometimes, often, or always (mean = 2.4, SD = 1.04).

c) Student management. Sixty-six percent of respondents perceived that students with behavioral or management issues sometimes, often, or always represented a barrier to taking a field trip (mean = 3, SD = 1.1). Fifty-nine percent of respondents sometimes, often, or always faced the challenge of not having enough parents or chaperones along on a field trip (mean = 2.8, SD = 1.2). Most respondents (59%) did not perceive that “special needs students make field trip logistics too complicated,” although 34 percent agreed that this situation sometimes applied to them (mean = 2.3, SD = .93).

d) Scheduling. Most respondents reported having administrators who are supportive of field trips, with 61 percent saying this seldom or never applied to them as a barrier (mean = 2.4, SD = 1.2). Scheduling conflicts represent a more significant barrier, as 68% of respondents agreed that “field trips cause scheduling conflicts with other subject areas” (mean = 3, SD = 1.2) and 59% said that “field trips are too hard to coordinate with other teachers” (mean = 2.8, SD = 1.1) sometimes, often, or always. Most respondents did not believe that “field trips take too much time away from the classroom” (mean = 2.0, SD = .98).

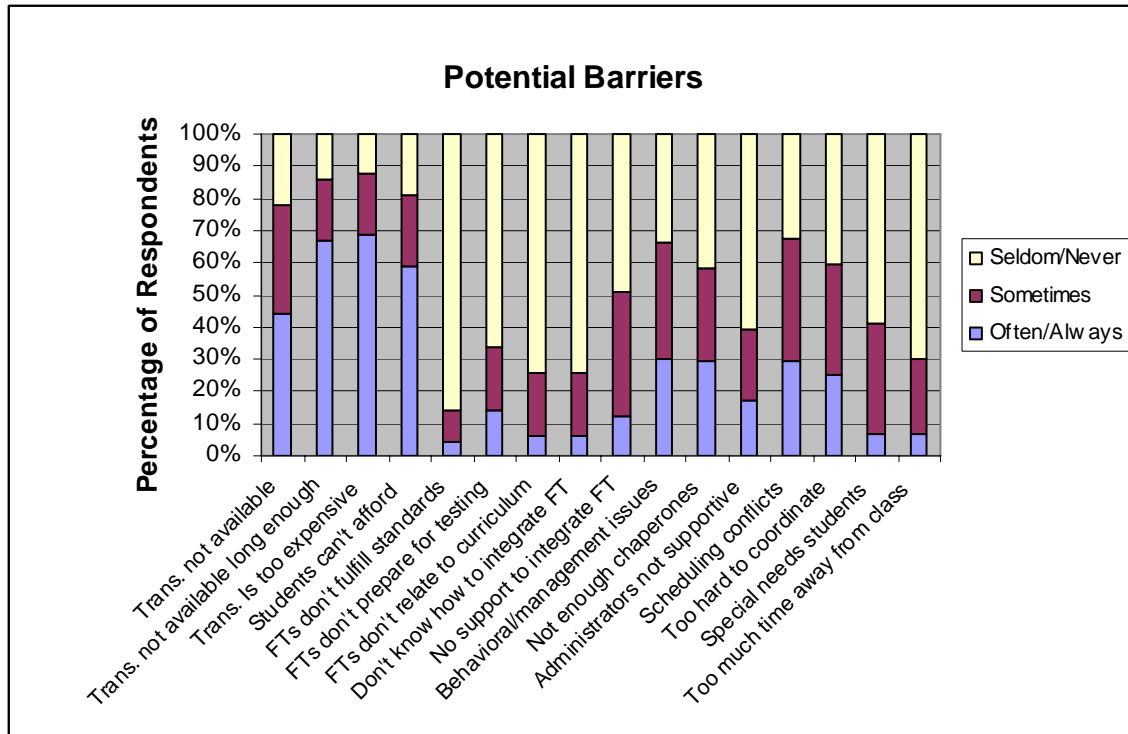


Figure 7. Degree to which potential barriers apply. FT = Field Trip; Trans. = Transportation

For the most part, the degree to which a respondent perceived each transportation issue as a barrier did not depend on grade level taught. The exception is the expense of transportation, as this was significantly more likely to at least sometimes be a barrier to a secondary teacher than to an elementary teacher (χ^2 , $p = .035$) (Table 11).

Table 11. Does perception of transportation issue as a barrier depend on grade level taught?

| Elementary (K-5) | | | | |
|------------------|---------------------------------|---|---------------------------------|--|
| | Transportation is not available | Transportation is not available long enough | Transportation is too expensive | My students can't afford to take field trips |
| Seldom/Never | 21% | 13% | 11% | 25% |
| Sometimes | 45% | 18% | 32% | 15% |
| Often/Always | 34% | 69% | 57% | 60% |
| Secondary (6-12) | | | | |
| Seldom/Never | 23% | 12% | 12% | 16% |
| Sometimes | 26% | 22% | 12% | 24% |
| Often/Always | 51% | 66% | 76% | 60% |

Secondary teachers were significantly more likely to perceive that field trips at least sometimes do not help them fulfill standards (χ^2 , $p = .023$) (Table 12). The degree to which other standard issues were perceived as barriers are not significantly dependent on grade level taught.

Table 12. Does perception of testing and standards issues as barriers depend on grade level taught? FT = Field Trips

| Elementary (K-5) | | | | | |
|------------------|-----------------------------|--|--------------------------------|---|--|
| | FT do not fulfill standards | FT do not prepare students for testing | FT do not relate to curriculum | Unaware of how to relate FT to curriculum | No support to help relate FT to curriculum |
| Seldom/Never | 96% | 67% | 90% | 77% | 56% |
| Sometimes | 2% | 17% | 6% | 17% | 40% |
| Often/Always | 2% | 17% | 4% | 6% | 4% |
| Secondary (6-12) | | | | | |
| Seldom/Never | 78% | 61% | 82% | 69% | 42% |
| Sometimes | 16% | 25% | 10% | 25% | 42% |
| Often/Always | 6% | 13% | 7% | 6% | 16% |

Secondary teachers were significantly more likely to perceive lack of parents/ chaperones as a barrier than elementary teachers (χ^2 , $p = .009$) (Table 13). Other student management issues are not significantly dependent on grade level taught. Secondary teachers were significantly more likely to agree that field trips cause scheduling conflicts with other subject areas (χ^2 , $p < .0005$) and are too hard to coordinate with other teachers (χ^2 , $p < .0005$) (Table 14). Secondary teachers were also significantly more likely to agree that field trips take too much time away from the classroom at least some of the time (χ^2 , $p = .010$).

Table 13. Does perception of student management issue as a barrier depend on grade level taught?

| Elementary (K-5) | | | |
|------------------|--|-------------------------------------|--|
| | Students with behavioral/management issues | Can't get enough parents/chaperones | Special needs students make field trip logistics too complicated |
| Seldom/Never | 44% | 58% | 73% |
| Sometimes | 33% | 23% | 25% |
| Often/Always | 23% | 19% | 2% |
| Secondary (6-12) | | | |
| Seldom/Never | 28% | 30% | 52% |
| Sometimes | 37% | 34% | 40% |
| Often/Always | 34% | 36% | 7% |

**Table 14. Does perception of scheduling issue as a barrier depend on grade level taught?
FT = Field Trips**

| Elementary (K-5) | | | | |
|------------------|--|---|--|--|
| | School administrators are not supportive | FTs cause scheduling conflicts with other subject areas | FTs are too hard to coordinate with other teachers | FTs take too much time away from the classroom |
| Seldom/Never | 71% | 65% | 67% | 85% |
| Sometimes | 21% | 35% | 31% | 13% |
| Often/Always | 8% | 0% | 2% | 2% |
| Secondary (6-12) | | | | |
| Seldom/Never | 55% | 13% | 24% | 60% |
| Sometimes | 24% | 36% | 36% | 30% |
| Often/Always | 21% | 51% | 40% | 10% |

The top eight barriers to taking field trips reported by elementary teachers were similar in many ways to the top eight barriers for secondary teachers (Table 15). The largest difference appears to be the issue of scheduling conflicts for secondary teachers. It appears that secondary teachers were more likely to perceive each situational choice as a barrier than were elementary teachers, as a higher percentage of secondary teachers agreed that each situation applied to them at least sometimes.

Table 15. Comparing barriers for elementary and secondary teachers.

| <i>Elementary Teacher (percentage that agree that the barrier applies to them sometimes, often, or always)</i> | <i>Secondary Teacher (percentage that agree that the barrier applies to them sometimes, often, or always)</i> |
|--|---|
| Transportation is too expensive (89%) | Transportation is too expensive (88%) |
| Transportation is not available long enough (87%) | Transportation is not available long enough (88%) |
| Transportation is not available (79%) | Field trips cause scheduling conflicts with other subject areas (87%) |
| My students can't afford to take field trips (75%) | My students can't afford to take field trips (84%) |
| Students with behavioral/management issues (56%) | Transportation is not available (77%) |
| Can't get enough parents/chaperones (42%) | Field trips are too hard to coordinate with other teachers (76%) |
| Field trips cause scheduling conflicts with other subject areas (35%) | Students with behavioral/management issues (71%) |
| Field trips don't prepare students for testing (34%) | Can't get enough parents/chaperones (70%) |

DISCUSSION

Clark County School District is the fifth largest district in the nation. Between 1993 and 2004, enrollment skyrocketed from 45,327 students to 280,834 (CCSD figures). The district currently operates some 300 schools:

- ✿ 186 elementary schools (69 year-round, 24 modified nine-month, 93 nine-month)
- ✿ 48 middle schools
- ✿ 38 high schools
- ✿ 23 alternative schools
- ✿ 6 special schools

There are several challenges facing the district that affect who can and will take field trips to Informal Education (IE) sites. One challenge is trying to keep pace with enrollment. There is a chronic shortage of teachers, with teacher to student ratios (30:1) that are higher than the nation as a whole. As well, the district must operate one of the nation's largest school construction programs, adding some 25 schools in the past two years alone (CCSD figures, 2005). These factors can affect a teacher's ability to participate in field trips. For example, about half the respondents must plan for more than 50 students for a field trip.

Complicating these challenges is the fact that school bus availability is limited and typically restricted to a few hours during the middle of the day (buses are available after dropping students off in the morning and must be returned early in the afternoon to be available to pick students up after school). Transportation issues represented the largest barriers facing teachers – especially the expense of transportation and the fact that it may not be available for a long enough period of time to accommodate a field trip.

Another challenge is caused by the No Child Left Behind Act. One by-product of this legislation is the emphasis that schools place on testing, especially in the subjects of English and Math. This indirectly affects how teachers and administrators make choices about field trips and other informal learning experiences. Almost all respondents agreed that field trip experiences should support the skills and content knowledge for which students are held accountable. But 34 percent of respondents reported that field trips do not always help prepare students for testing, and secondary teachers were significantly more likely to perceive that field trips do not help them fulfill standards.

Respondents agreed that IE sites should and currently do offer field trips that meet state and district standards. The survey results indicate the need to understand and act on the difference between “meeting standards” and having a field trip that teachers are able to integrate into their curriculum. Although most teachers agreed that they know how to integrate field trips into their curriculum, there is not always the support needed to accomplish this. In fact, 44 percent of elementary teachers and 58 percent of secondary teachers agreed that the fact that there is no support available for them to do this is a barrier at least some of the time.

Predicting whether a given teacher is likely to take a field trip and where they are likely to go is difficult. The number of field trips a teacher is apt to take is not related to the number of students that teacher has, how long a teacher has taught, or whether a teacher has taught in a different school district. But whether or not a teacher is likely to take a field trip *is* significantly related to the CCSD region and grade level taught, with

elementary teachers and those teaching in the Northeast region being most likely to take field trips.

Similarly, no clear pattern emerged when respondents were asked to name their most successful field trip destination (in Clark County or not). Ten sites (22%) of the 44 total sites were mentioned by three or more teachers. Elements for success include experiential learning that takes place in settings that are fun, interesting, and new in a well-planned, organized fashion.

In conclusion, these survey results provide information useful to Las Vegas-area Informal Education site educators who provide field trips to the Clark County School District. These educators can use these results to create successful programs and services with appropriate goals, subject and topic areas, and support resources. Moreover, these results indicate the most important barriers that teachers face when taking field trips.

Recommendations for area-wide IE site educators, as suggested by the survey results:

- ◆ Communicate to teachers via Interact (including the “Beyond the Classroom” conference site), email, and the Partners for Education about the Environment field trip resource guide (<http://enviroedexchange.org>).
- ◆ Make field trips experiential. Communicate how field trips relate to content and curricula important to the teachers’ grade level. Show how experiences will be fun, interesting, and new for the students. Be well-organized and make field trips easy for teachers to plan.
- ◆ Design field trip experiences to accommodate large numbers of students.
- ◆ Provide information about transportation scholarships or other resources that will help reduce the cost of the field trip. Information about such resources is available through such IE consortiums as Partners for Education about the Environment (<http://enviroedexchange.org>) and CHOLLA (<http://interact.ccsd.net/beyond%20the%20classroom/>).
- ◆ Provide logistical information and activity sheets and ideas on enviroedexchange.org and the Interact “Beyond the Classroom” conference site.
- ◆ Market field trip opportunities to regional superintendents beyond the Northeast region, especially the Southeast, Southwest, and East regions.
- ◆ If appropriate for the site, design field trip experiences that involve students in the process of science and instill a sense of stewardship.
- ◆ Understand standardized testing for each target grade level and communicate to teachers and administrators how field trip experiences reinforce the knowledge and skills students need to do well on testing.
- ◆ Devise and implement a strategy for increasing the number of hours buses are available for transportation.
- ◆ Help teachers prepare parents/chaperones and students for the field trip experience so that student management is less of an issue.
- ◆ Give teachers resources to integrate field trips into their curriculum.

- ◆ For secondary teachers:
 - Set the “bar” and expectations high enough to satisfy high school teachers and their students. Communicate how field trips are a constructive use of time.
 - Make planning and organizing a field trip as easy as possible for high school teachers.

Using Public Lands for Field Trip Experiences



Voluntary Participation

Your participation in this study is voluntary. You may refuse to participate in this study or in any part of this study. You may withdraw at any time without prejudice to your relations with the university. You are encouraged to ask questions about this study at the beginning or any time during the research study.

If you agree to participate, you may choose to skip any question at any time.

Confidentiality

All information gathered in this study will be kept completely confidential. No reference will be made in written or oral materials that could link you to this study. All records will be stored in a locked facility at UNLV for at least 3 years after completion of the study.

Participant Consent

Choosing "yes" below indicates that I agree to participate.

1. Please indicate your position at the Clark County School District.

teacher – grade level _____ administrator – position _____

CCSD Region _____

2. How many years have you taught and/or been an administrator in the Clark County School District? _____

In other school districts? _____

3. If taking a field trip, what is the number of students you would have to plan for? _____

4. How often do you take your students on field trips? (Please include museums and other sites.)

never (please go to question # 8) 1 time per year

2-3 times per year 4-5 times per year

5. Consider your most successful field trip (in Clark County or not). Where did it take place?

5a) Explain, in your view, what made this field trip successful.

6. Choose the ONE subject where state standards were best achieved by your most successful field trip (in Clark County or not).

Science

Math

Language Arts

Art

Social Studies

Health

Career and Technical Education Standards

Physical Education

None

Other (please specify) _____

7. Check any or all of the following locations where you have taken students on a field trip.

- Lake Mead Red Rock Canyon Corn Creek
 Spring Mountains/Mount Charleston/Lee Canyon area
 Other (please specify) _____

8. What time of year would you prefer to take your students on a field trip?

- spring fall winter summer no preference
 other (please specify) _____

9. Please indicate from 1-5, with "1" being strongly disagree and "5" strongly agree, whether you agree with the following statements.

| Strongly disagree | Disagree | Neutral | Agree | Strongly agree |
|--|----------------------------|----------------------------|----------------------------|----------------------------|
| I use field trips to help meet curricular objectives set by state standards. | | | | |
| <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| I think it is important that field trip experiences relate back to the content knowledge and process skills for which students are held accountable. | | | | |
| <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |

10. The following ideas for field trip subject areas come from both public land agency mission statements and state science standards. Please indicate from 1-5, with 1 being not at all useful and 5 being extremely useful, which of the following field trip subject areas would be most useful to you.

| Not at all useful | Minimally useful | Useful | Very useful | Extremely useful |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| Ecology/interactions among animals and plants and the transfer of energy | | | | |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Science programs that integrate math and language arts | | | | |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Cultural history/social studies | | | | |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Protecting our fragile resources/ instilling a sense of stewardship | | | | |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Involving students in the process of science (conduct investigations, examine and evaluate evidence, pose hypotheses, and make observations) | | | | |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Real-world application of genetics, inheritance and the diversity of organisms | | | | |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Other (please specify) | | | | |

11. Please indicate from 1-5, with 1 being not at all useful and 5 being extremely useful, which of the following field trip topics would be most useful to you?

| Not at all useful | Minimally useful | Useful | Very useful | Extremely useful |
|---|-----------------------|-----------------------|-----------------------|-----------------------|
| Classification (e.g., mammals, birds, invertebrates, snakes and lizards) | | | | |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Desert soils | | | | |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Animal life cycles | | | | |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Adaptations/structures that help plants and animals survive in their habitat | | | | |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Ecosystems – differences among habitats; the plants and animals that live there; and the influence of climate and topography in creating ecosystems | | | | |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The Mojave Desert ecosystem | | | | |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Water quality and conservation | | | | |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Geology | | | | |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Other (please specify) | | | | |

12. Please indicate from 1-5, with "1" being not at all useful and "5" being very useful, which of the following resources would be helpful for you to plan and implement a field trip to the public lands around Las Vegas.

| Not at all useful | Minimally useful | Useful | Very useful | Extremely useful |
|--|-------------------------|-------------------------|-------------------------|-------------------------|
| A resource suitcase or kit I can check out and use before, after or during a field trip | | | | |
| <input type="radio"/> 1 | <input type="radio"/> 2 | <input type="radio"/> 3 | <input type="radio"/> 4 | <input type="radio"/> 5 |
| A teacher workshop that provides me with background information about the Mojave Desert | | | | |
| <input type="radio"/> 1 | <input type="radio"/> 2 | <input type="radio"/> 3 | <input type="radio"/> 4 | <input type="radio"/> 5 |
| A teacher workshop that provides me with interdisciplinary activities (correlated to state standards) and resources about the field trip focus (e.g., Mojave Desert) | | | | |
| <input type="radio"/> 1 | <input type="radio"/> 2 | <input type="radio"/> 3 | <input type="radio"/> 4 | <input type="radio"/> 5 |
| A website with interdisciplinary activity sheets and background information I can download for my field trip | | | | |
| <input type="radio"/> 1 | <input type="radio"/> 2 | <input type="radio"/> 3 | <input type="radio"/> 4 | <input type="radio"/> 5 |
| A website with resources to help me plan my field trip (e.g., logistical information) | | | | |
| <input type="radio"/> 1 | <input type="radio"/> 2 | <input type="radio"/> 3 | <input type="radio"/> 4 | <input type="radio"/> 5 |
| Interdisciplinary activity sheets, journal pages, or ideas for students to complete during the field trip | | | | |
| <input type="radio"/> 1 | <input type="radio"/> 2 | <input type="radio"/> 3 | <input type="radio"/> 4 | <input type="radio"/> 5 |
| A guide or naturalist to help teach the students during the field trip | | | | |
| <input type="radio"/> 1 | <input type="radio"/> 2 | <input type="radio"/> 3 | <input type="radio"/> 4 | <input type="radio"/> 5 |
| A transportation scholarship that would pay for the buses | | | | |
| <input type="radio"/> 1 | <input type="radio"/> 2 | <input type="radio"/> 3 | <input type="radio"/> 4 | <input type="radio"/> 5 |
| Other (please specify) | | | | |

13. The following statements represent possible barriers to taking field trips. Please indicate from 1-5, with "1" being never and "5" being always, to what degree each statement applies to your situation.

| Never applies to me | Rarely applies to me | Sometimes applies to me | Often applies to me | Always applies to me |
|--|-----------------------|-------------------------|-----------------------|-----------------------|
| Transportation is not available | | | | |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Transportation is not available for the number of hours needed for a trip to areas such as Red Rock or Lake Mead | | | | |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Transportation is too expensive | | | | |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| My students can't afford to take field trips | | | | |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Field trips do not help me fulfill state/district mandated standards | | | | |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Field trips do not help me prepare students for testing | | | | |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Field trips do not relate to my curriculum | | | | |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I am unaware of how to integrate field trips into the curriculum | | | | |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| There is no support available to help me integrate field trips into my curriculum | | | | |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I have students with behavioral/management issues | | | | |

| | | | | |
|--|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| I can't get enough parents/chaperones | | | | |
| 1 | 2 | 3 | 4 | 5 |
| School administrators are not supportive | | | | |
| 1 | 2 | 3 | 4 | 5 |
| Field trips cause scheduling conflicts with other subject areas | | | | |
| 1 | 2 | 3 | 4 | 5 |
| Field trips are too hard to coordinate with other teachers | | | | |
| 1 | 2 | 3 | 4 | 5 |
| Special needs students make field trip logistics too complicated | | | | |
| 1 | 2 | 3 | 4 | 5 |
| Field trips take too much time away from the classroom | | | | |
| 1 | 2 | 3 | 4 | 5 |
| Other (please specify): | | | | |

14. Many public lands sites offer a guide or naturalist to facilitate/teach students during the field trip. If provided with adequate training, would you be comfortable conducting and facilitating your own field trip without assistance from agency staff? Why or why not?

15. Which of the following is the best way to contact you with information about field trips to public lands? Please indicate all that apply.

- InterAct web site
- Direct mail
- E-mail
- Team leaders at my school
- My administrator
- Word of mouth from other teachers
- A resource guide describing possible field trips and that includes ideas for pre- and post-trip activities
- Other (please specify): _____

16. What would help you in your efforts to begin conducting field trips, or support your current efforts to conduct field trips?