HOW FIELD TRIPS HELP LIMITED ENGLISH PROFICIENCY STUDENTS BETTER ASSIMILATE INTO AMERICAN SOCIETY

by

Demetra Wright

A Master's Research Project submitted in partial fulfillment of the requirement for the degree Master of Arts

OTTAWA UNIVERSITY

January 2000

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January 2000

APPROVED:

ACCEPTED:
ABSTRACT

The purpose of this study was to examine the effect of adding field trips to the content and assessment procedures of the regular curriculum of Limited English Proficient students in the kindergarten through third grades. The need for this study was considered significant because of the growing numbers of immigrant students in our Arizona schools. The study explored the need to develop a program which would assist in aiding Limited English Proficient students being more fully integrated into American Society.

Six ESL teachers in the Scottsdale School District were asked to participate in a survey to determine the effectiveness, in their opinion, of using field trips as an learning tool in their Social Studies curriculum.
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CHAPTER 1

THE PROBLEM

Introduction

Today in our public schools an estimated 38 percent of the student population come from households where English is not the spoken language. A 1990 census report published by the Arizona Department of Education stated that approximately 9.9 million school age children or one in five households, attended school in the United States and were placed in programs for students with Limited English Proficiency (LEP) (Arizona Department of Education Census, 1990 Report). The 1990 census report continues by expressing a concern that these numbers are growing at an alarming rate due to the increase of immigrants into the United States. Immigrants are also arriving from Asia, Africa and many parts of Europe, therefore a diversity of languages are present in Arizona classrooms.

The challenge to teachers, who are required not only to
Integrate the students into the language but also into the American culture, is of grave concern. By the middle of the twentieth century it is estimated that the non-English speaking population in schools in the U.S. will be in excess of 41% (Commission on minority participation in Education and American Life, 1988). There is a need to develop a program to teach these children the English language, and at the same time educate them in the history, culture and customs of the United States. The National Association for Bilingual Education (NABE) expressed a concern that the numbers are growing at such a phenomenal rate and adequate steps are not being taken to handle the problem. (National Association for Bilingual Education, 1994)

Development of the Problem

Public Schools are required to provide a program that meets the needs of the ever increasing non-English speaking students. In the 1970s the number of non-English speaking students was 23%, by the 1980s this number had increased dramatically to between 29 and 32 percent (National Center for Education Statistics, 1993). The
increase in numbers was due to the surge of immigrants arriving in the United States from different parts of the world. A 1990 Census Report revealed that 9.9 million children of immigrant parents were enrolled in public school (National Assessment of Education Progress (NAEP, 1990). This number represents 32 percent of the total school enrollment. By the end of the twentieth century it is estimated that minority students will total 42 percent of children enrolled in school. (Commission on Minority Participation in Education and American Life, 1988) By the end of the twenty-first century this percentage is estimated to increase to more than 51 percent.

It is the intent of this researcher to bring a better understanding of the needs of the LEP students to teachers of English as a Second Language in other avenues rather than just a working knowledge of the English Language.

Need for the Study

This study explores the need to develop a program to assist in aiding the Limited English Proficient students being more fully integrated into American society.
Many LEP minority students come from homes which are economically depressed. Crime is prolific in these neighborhoods. Another language is spoken in the home and older children in the families are forced to take on an adult role in the raising of younger siblings. The opportunity for these students to get out into the community and explore the culture is often non-existent. Therefore, these children are not only language deficient and economically depressed but culturally deprived. It is as important for the children of immigrants to learn about the American culture and history as it is to learn the language. (Pasquier, B. ESL Field Trips, 1994)

Purpose of the Study

The purpose of this study was to develop a field-trip based program for English as a Second Language students to better assimilate them into mainstream instruction for children in grades Kindergarten through third grade. The study examines the need for a more extensive English as a Second Language program and will include in the curriculum a series of field trips in Arizona. The study
examines how these field trips help Limited English Proficiency students, the children of immigrant parents, better assimilate into American society.

This study strives to produce a series of field trips in Arizona which will give students an opportunity to explore the area in which they live and at the same time learn about the history and culture of Arizona.

Research Question

What is the effect of adding field trips to the content and assessment procedures of the regular curriculum of Limited English Proficient students in the kindergarten through third grades?

Definition of Terms

E.S.L. Program  English as a Second Language. A program with students whose first language is other than English.

L.E.P. Student  Limited English Proficient. A student whose vocabulary in English is limited.

L.A.  Language Acquisition. A program which
measures the degree to which one learns
(acquires) another language.

P.H.L.O.T.E.  (Student for whom) Primary Home Language
Other Than English.

Schemata  The personal system of viewing and making
sense of one's language and environment.

Missing
to Limited English Proficient students.

**Natural Approach**

T.D. Terrell in 1977 wrote a paper in which he outlined a new philosophy in teaching new language acquisition which he called the “Natural Approach” (Terell, 1977). This theory maintained that natural approach to language acquisition parallels the first language development. The language acquisition in the natural approach is an unconscious process which allows the development of second language proficiency through the use of the language for useful and meaningful communication (Krashen & Terrell, 1983). In 1985 an article was published in the LaRevue Canadienne des Langues Vivantes, entitled L’approche de Naturel, in which Terrell and Krashen both admitted that the Natural Approach theory was not new, indeed the same theory had been used by both Kelly and Titone in 1968 and 1969, respectively. Terrell went on to say that he and Krashen had merely collaborated to rearrange ideas which had gone out of style since man began speculating on language teaching and learning. In this paper Terrell defended his original paper of 1977 stating that any class with a basis for com-
munication in the largest target language will result in oral competence in the second language in a very short space of time. By understanding the impute linguistic competence is acquired (Krashen & Terrell, 1983). On the same premise by using the above method of Terrell and Krashen (1977) of total emergence in the targeted second language in a field trip experience the student when exposed to "impute" in the second language will result in an acquisition process taking place (Krashen & Terrell, 1983).

Language Acquisition (Motherese)

Chomsky, (1968) carried out an experiment in the early sixties in which he maintained that children acquire language through "motherese" the imitation of the sounds and words spoken to a child by the parent/care giver. Carol and Noam Chomsky further proved that one learns certain sounds before uttering intelligible words. Their findings were largely influenced by Fries (1945) in his book, "Teaching and Learning English as a Foreign Language." Fries maintained that to master a foreign language one must first master the sound system of that language within a limited vocabulary.
Cooperative Learning

Cooperative Learning (Uttero, 1988) helps to motivate students working together in a group setting to take responsibility for their learning. Students begin to comprehend and learn from strategies devised through collaboration. Students with low academic scores welcome the opportunity to participate in group learning situations and in so doing learn from their peers (Uttero, 1988). Cooperative Learning is a means of effectively motivating the students to draw on their prior knowledge (Flood, 1986). Students will share and discuss ideas with others in the group. Therefore an active participation takes place (Uttero, 1988). In a multi-cultural group setting, a sharing of their schemata (environment) leads to the extension of their cultural awareness (Slavin, 1983). Co-operative Learning according to Uttero (1988) has three stages, Connection, Guided Independent Reading and finally Follow-up. The first stage, Connection is the brainstorming of ideas, categorization of the data, and finally comparing the information gained through the categorization which could take the form of semantic webbing (Vaughn and Estes, 1986). During the second stage Guided Independent Reading the students in the group work together on a given text, interpreting it and taking
notes. The final stage, the Follow Up is when the knowledge acquired through the first two stages are summarized and applied to the new problem to be solved. Students gain confidence in their ability to solve problems from collected data and low achieving students benefit from working in a group setting and often improve their self esteem and attitude toward learning (Uttera, 1988).

Total Physical Response (TPR)

Total Physical Response (Asher, 1977) was introduced in the 1970s which demanded an immediate physical response from the student. The instructor gave a command such as ‘Go to the door’ or ‘Close the Window.’ The student reacted to the command and at the same time learned by doing and became familiar with the sentence structure associated with the activity. Many hands-on activities using this method are available from Houghton Mifflin for LEP students.

Multiple Intelligences

Multiple Intelligences was explored by Howard Gardner in 1979
when he was asked by the Bernard Van Leer Foundation of Holland to explore The Nature and Realization of Human Potential. The study culminated in the publication of Human Potential. The study culminated in the publication of Frames of the Mind (1983). Ten years later Gardner (1993) published his further findings in his book Multiple Intelligences – The Theory in Practice. Gardner's theory lists 7 intelligences as a means of learning/acquiring knowledge. The seven intelligences are Linguistic intelligence, as used in its fullest form by poets; Logical-mathematical, a logical plus a mathematical ability; Spatial intelligence, or the ability to formulate in the mind a mental picture and be able to maneuver and operate that model (an example of this would be a surgeon, painter or sculpture) (Gardner, 1993); Musical intelligence, as displayed by famous composers such as Mozart or Bernstein; Bodily-kinesthetic intelligence, the ability to solve a problem using ones body or body parts such as dancers or athletes; Interpersonal intelligences, the ability to understand other people, what makes them who they are and to work with them cooperatively; and Interpersonal intelligence, an ability to turn inward and examine ourselves accurately and use that information to operate effectively in the world
around us (Garner, 1993).

Summary

The Natural Approach, Motherese, Cooperative Learning and the Total Physical response Methods have all been proved effective in teaching a second language. Therefore, the amalgamation of these four methods by Terrell, Chomsky, Uttero, and Asher which have been proven and are sound in theory will be used for second language learners during the field trip experiences some of which are described in Chapter 3.
CHAPTER 3
METHODOLOGY

Introduction

The purpose of this study was to develop a field trip based program for E.S.L. students to better assimilate them into the mainstream instruction for children in grades Kindergarten through Third grade. The study will examine how this method may be used and the effectiveness in reading and language abilities of the student. The research question is:

What is the effect of adding field trips to the content and assessment procedures of the regular curriculum of Limited English Proficient students in the Kindergarten through Third grades?

Research Design

The research design used in this study is descriptive. The major focus of descriptive design is to examine the attitudes and opinions of people (Kerlinger as cited in Merriam and Simpson,
1995). Merriam and Simpson (1995) further stated, “Its purpose is to systematically describe the facts and characteristics of a given phenomenon, population, or areas of interest” (p. 61). The researcher collected data and materials from museums, national parts, Arizona history researchers, books, journals, conferences, and visitor's bureaus throughout the urban region and included them in the lesson plans for three model field trips. The three model field trips, plus lesson plans, were sent to six practicing ESL teachers to evaluate by completing a ten item questionnaire inquiring how these field trips could be incorporated into their curriculum, and which methodologies, were found to be successful means of instruction.

**Procedure**

The researcher reviewed information gathered from, the questionnaire, books, articles, and brochures from museums, state landmarks and State Parks to develop the field trip based program. The four major theories used to develop the field trip curriculum are: The Natural Approach (Terrell, 1977), Language Acquisition (Motherese) (Chomsky, 1964), Cooperative Learning (Uttero, 1988), and Total Physical Response (Asher, 1981). The
information was categorized and summarized as a means of producing plans of field trip based lessons to be used with ESL students (See Appendix A). A sample lesson plan is contained in Appendix B. The lesson plan contains a detailed description of the location to be visited, targeted vocabulary, and suggested activities, art, and language experiences incorporating the strategies of Cooperative Learning, Total Physical Response, and the Natural Approach.

The success of language assimilation was determined by examining the scores attained on assessments consisting of portfolios compiled from handouts related to each field trip and covering material learned, and oral, essay, or multiple choice tests administered over time (quarterly, at the end of each semester, and yearly). Six certified ESL teachers from Scottsdale Arizona School District were surveyed by the researcher, using a questionnaire (See Appendix E). They agreed to incorporate at least one of the three field trips into their curriculum. They were then asked to evaluate the field trips and lesson plans as to how the trips were beneficial to their students. The teachers responded that the content of a curriculum in which field trips were provided for LEP students
gave those students an opportunity to explore the area in which they live and at to learn about the history and culture of their new state, while simultaneously increasing their vocabulary and language usage skills.

**Assumptions and Limitations**

The assumption was made that the majority of the ESL students participating in the field trips would be culturally deprived as well as language deficient. It is to these students that this research was focused. One limitation of the research was that the grade levels targeted were kindergarten through third grade only. A second limitation was the necessity, because of costs involved, to limit the radius of the field trips to the state of Arizona. A third limitation was that only six ESL teachers were included in the study, and all of them were from the same elementary district.

**Instrumentation**

A questionnaire was developed consisting of ten questions. The Likert-style question contain five responses, ranging from strongly agree (number 1), to strongly disagree (number 5).
Participants were asked to rate items in the questions, based on their personal opinions and teaching experience. Six English as a Second Language teachers from the Scottsdale School District were asked to complete a questionnaire as to whether field trips would be beneficial to their students. They were also asked to evaluate which of the five proven methods of teaching ESL were most useful. See Appendix E for questionnaire. The five methods were Total Physical Response (Asher), Cooperative Learning (Uttero), The Natural Approach (Terrell), Multiple Intelligences (Gardner), and Language Acquisition Motherese (Chomsky).
CHAPTER 4

PRESENTATION AND ANALYSIS OF THE DATA

Data gathered for this study came from a questionnaire completed by six ESL teachers from the Scottsdale School District. The survey/questionnaire involved a description of proposed field trips and questions, survey questionnaire using a Likert scale with responses from strongly agree to strongly disagree. The teachers years of teaching experience ranged from four years to twenty-two years. All six teachers were elementary teachers. Two were responsible for students in grades kindergarten through six grade. Two were responsible for students in grades kindergarten through fourth grade. One was a fifth through sixth grade teacher and the final respondent taught a pilot integrated fourth grade class.

Findings and Results

The actual field trip survey results are presented in Table 1.

Table 1 lists the ten questions given to the teachers plus their
responses. A summation of the teachers' comments is included demonstrating which field trips were found to be most useful as they applied to the curriculum.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Survey Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) The field trip I found to be most useful in my curriculum was:</td>
<td></td>
</tr>
<tr>
<td>Strongly agree</td>
<td>Agree</td>
</tr>
<tr>
<td>(a) Botanical Gardens 5</td>
<td>1</td>
</tr>
<tr>
<td>(b) Fleischer Museum 0</td>
<td>3</td>
</tr>
<tr>
<td>(c) Heard Museum 0</td>
<td>4</td>
</tr>
</tbody>
</table>

2) These field trips will provide LEP students an opportunity to explore the area in which they now live and gain a better understanding of the social studies curriculum.

| Strongly agree | Agree | No Opinion | Disagree | Strongly Disagree | |
|---------------|-------|------------|----------|------------------| |
| 5             | 1     | 0          | 0        | 0                | |

3) The field trips help LEP students access the history and culture of their new state while they are studying vocabulary and language usage.

| Strongly agree | Agree | No Opinion | Disagree | Strongly Disagree | |
|---------------|-------|------------|----------|------------------| |
| 4             | 2     | 0          | 0        | 0                | |

4) These field trips directly relate to my curriculum.

| Strongly agree | Agree | No Opinion | Disagree | Strongly Disagree | |
|---------------|-------|------------|----------|------------------| |
| 3             | 1     | 2          | 0        | 0                | |

5) The targeted vocabulary provided by these lesson plans was appropriate to your curriculum.

| Strongly agree | Agree | No Opinion | Disagree | Strongly Disagree | |
|---------------|-------|------------|----------|------------------| |
| 5             | 1     | 0          | 0        | 0                | |
6) The Total Physical Response (TPR) approach helped my students be better able to participate in the lesson.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>No Opinion</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

7) Cooperative learning helped my students be better able to participate in the lesson.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>No Opinion</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

8) The Natural Approach helped my students be better able to participate in the lesson.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>No Opinion</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

9) Using Gardner's Multiple Intelligences in my lesson planning helped my students be better able to participate in the lesson.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>No Opinion</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

10) Using Chomsky’s “Motherese” theory in my lesson planning helped my students be better able to participate in the lesson.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>No Opinion</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

Comments from two of the teachers indicated that the field trips were beneficial because they directly connected with the fourth grade social studies curriculum which requires students to study the State of Arizona. One teacher felt that the materials from the Botanical Gardens were most helpful.

Table 2 indicates the percentages of respondents whom either agreed or strongly agreed with each of the statements on the survey. These results demonstrate that while all the field trips
were useful in some respect, all respondents indicated that the Botanical Gardens was the most useful in their curriculum. One hundred percent of the respondents indicated that adding these field trips to the regular Social Studies curriculum provided beneficial to their LEP students.

Table 2
Percent who Agree or Strongly Agree

1) The field trip I found to be most useful in my curriculum was:

(a) Botanical Gardens 100% Strongly Agree & Agree
(b) Fleischer Museum 60% Agree
(c) Heard Museum 80% Agree

2) These field trips will provide LEP students an opportunity to explore the area in which they now live and gain a better understanding of the social studies curriculum.

100% Strongly Agree & Agree

3) The field trips help LEP students access the history and culture of their new state while they are studying vocabulary and language usage.

100% Strongly Agree & Agree

4) These field trips directly relate to my curriculum.

66% Strongly Agree & Agree

5) The targeted vocabulary provided by these lesson plans was appropriate to your curriculum.

100% Strongly Agree & Agree

6) TPR helped my students be better able to participate in the lesson.

50% Strongly Agree & Agree
7) Cooperative learning helped my students be better able to participate in the lesson.

   66%    Strongly Agree & Agree

8) The Natural Approach helped my students be better able to participate in the lesson.

   50%    Strongly Agree & Agree

9) Using Gardner’s Multiple Intelligences in my lesson planning helped my students be better able to participate in the lesson.

   50%    Strongly Agree & Agree

10) Using Chomsky’s “Motherese” theory in my lesson planning helped my students be better able to participate in the lesson.

    50% No opinion, 50% disagree
CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The purpose of this study was to examine the effect of adding field trips to the content and assessment procedures of the regular curriculum of Limited English Proficient students in the Kindergarten through Third grades. The study was considered necessary because of the increase in the number of Limited English Proficient students enrolling in American schools and the need to integrate the students into both the English language and the American culture. It was necessary to examine the theories of the experts in the field of teaching English as a second language and what has been proven to be effective.

The five methods examined were The Natural Approach (Terrell, 1977) Language Acquisition (Chomsky, 1966) Cooperative Learning (Uttero, 1988) Total Physical Response (Asher, 1977) and Multiple Intelligences (Gardner, 1993). All five theories have been
researched and proven to be an effective means of teaching English as a second language.

The design used to collect data was a letter plus a questionnaire using a Likert scale and consisting of ten questions sent to six practicing English as a Second Language teachers in the Scottsdale School District. The Likert style responses ranged from strongly agree to strongly disagree and demonstrated the usefulness of field trips within the Social Studies curriculum. The teachers were asked to examine and if possible put into practice one of the suggested field trips. The field trips contained a description of the site to be visited along with related lesson plans, targeted vocabulary, and suggested activities to demonstrate learning by the student. An optional comments box was included in the questionnaire.

Conclusion

The teachers agreed 100% that Limited English Proficient students gained an opportunity to explore the area in which they lived and gained a better understanding of the social studies curriculum by participating in a field trip.

The Total Physical Response (Asher, 1981) method of teach-
ing English as a second language was found to be effective by 50% of the teachers surveyed. Cooperative Learning (Uttero, 1988) was considered effective by 66% of the teachers because it helped the students participate in the lesson. Fifty percent thought the Natural Approach (Terrell, 1977) was beneficial. Multiple Intelligences (Gardner, 1993) was tabulated at fifty percent as effective by the teachers, while Chomsky’s Motherese theory (1964) was zero percent effective (fifty percent no opinion, fifty percent disagree).

The majority of teachers surveyed preferred the Botanical Gardens field trip because the Gardens gave teachers useful handouts consisting of preplanning activities which introduced the Botanical Gardens to the students; also a video of the Gardens showing how it was originally formed; plus lesson plans that could be used on the actual tour of the Gardens.

Upon examining the results of the questionnaire it was found that the teachers surveyed used a combination of the methods of Total Response, Multiple Intelligences, Cooperative Learning, and the Natural Approach to aid in the instruction of ESL students. The Motherese theory was not considered an effective filter for learning in a field trip situation by any of the teachers surveyed.
The flexibility of the field trips made it possible for the teachers to choose the method of teaching English as a second language as the method/methods which were most successful for meeting the students linguistic needs. Adding to the course content was perceived to be an effective means of assessing the regular curriculum in an English as a Second Language classroom.

Recommendations

Field trips should be a part of the curriculum to be used with lesson plans and suggested activities that incorporate the proven theories of teaching English as a second language. The results should be assessed periodically to determine whether the purpose of adding Field Trips to the content and assessment procedure of the regular curriculum for ESL students should be assessed periodically to determine whether the purposes are being fulfilled.

Further studies may be recommended to expand the program to higher grade levels.
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APPENDIX A

INFORMATION ON THREE FIELD TRIPS
Information on Three Field Trip Sites

1. The Heard Museum

Of historical interest, this museum features an extensive number of exhibits and offers many educational services. It focuses on the Native Americans of the South West. The museum’s educational department offers details of its tours, activities, and materials on the Internet to teachers and other educators. Guided tours are available with three weeks prior notice. Admission is free, but a $20 donation is required for a guided tour. Through an agreement with the Fleischer Museum Foundation (see also Fleischer Museum Field Trip), the cost of transporting children to the Heard Museum has been underwritten. After scheduling a field trip, teachers are requested to contact their school district to arrange bus transportation, noting that the fee for transportation will be absorbed by the Foundation. (There are 7 choices of tours available, the most popular being the three focusing on the tribes of the Southwest-- Navajo, Apache, Hopi, or Pima and Papago.) The above are of particular interest in the integration of Limited English Proficient students into the culture of the Southwest. The number for the Education Tour Coordinator is (602) 251-0268.

Also of interest to teachers who conduct their classes in both
English and Spanish is a kit entitled "A Rain Curriculum", which comes in a pack of six topics: rain, clouds, rainbows, animals, dry spells, and using the rain. These kits are available in both English and Spanish.
2. Botanical Gardens

The Desert Botanical Gardens are a living museum of 145 acres of desert preserve in Phoenix, Arizona. The Gardens include more than 10,000 different plants from deserts of the world, and are the home of several species of desert animals. A field trip to the Gardens is designed to promote a greater understanding and appreciation of desert environments generally, and the Sonoran Desert of Arizona more specifically. The Botanical Gardens demonstrate that the Sonoran Desert is a land of contrasts which supports a diversity of plant and animal life, due to its ranges in elevation from sea level to 3,000 feet.

By visiting these Gardens, students will be better able to understand the desert environment, and of how plants and animals adapt to their individual habitats. This directly correlates to the Arizona Department of Education Essential Standards (1998) in the areas of language, science, and social studies, as these require students to verbalize and conceptualize the relationships between living things and their environments. Students will also be introduced to the history and diversity of the native Arizonan peoples, which it is hoped will lead to a greater understanding of the people living in Arizona today, by learning how desert plant life allowed people to settle in this area of Arizona and to reflect upon how these
plants are still used today.

Field trips to the Botanical Gardens can be arranged by calling the staff at 602-941-1225, extension 8118. A Garden Representative will provide the teacher with specific curriculum packets which include pre- and post-visit activities, maps, and other essential information. They also will loan the teacher a pre-visit video to help motivate students for their upcoming field trip. Tours can be self-guided, using the Gardens “Desert Detective” discovery games, at a charge of $1.00 per person, or tours can be conducted by Garden volunteers at a charge of $2.00 per person. The Gardens offer teachers a choice of one of three different themes: “The Mystery of Desert Plants”, “The Plant and Animal Partnership”, and “The Plant and People Connection.” Each of these themes focuses on one aspect of desert life, and features a different section of the Botanical Gardens.
3. Fleischer Museum

The Fleischer Museum changes its exhibits four to six times each year, but always presents the history of Arizona and the United States. At the time of this research, the Museum exhibited paintings by artists of the Southwest. These paintings reflected the history and culture of the area and its people.

The Museum is located on North Perimeter Drive in northeastern Scottsdale. The cost of transporting children to the Museum is underwritten by the Fleischer Museum Foundation. After scheduling a field trip with “Annabelle” at the Museum, teachers should contract their school district to arrange bus transportation, noting that the fee for transportation will be absorbed by the Foundation.

A Museum docent is provided to conduct the tour of the exhibits. At the culmination of the tour, students are invited to sit in the Museum Rotunda with paper and pencil (provided by the Museum staff) and draw something to represent their favorite aspect of the tour. These drawings are retained at the Museum to be judged in April of each year along with the drawings of all other students who have visited the Museum that year. Approximately fifty drawings are selected and the student artists and their teachers are then invited to a special Award Celebration given by the Fleischer Museum Foundation. To make field trip arrangements, call 480-585-3108, and ask for Annabelle.
APPENDIX B

LESSON PLAN – GRADE 3
BOTANICAL GARDENS
Lesson Plan - Grade 3
Botanical Gardens

Objective:

To introduce students to the desert environment of Arizona, and to learn how people use desert plants in everyday living.

Targeted vocabulary:

desert, cactus, yucca, agave, mesquite, saguaro, ramada, fibers, rope, shelter, shade, fence, food source, pound, twist, harvest, grind, construct*

*More words may be needed, depending upon students' English proficiency level.

Materials:

Students’ Science and Social Studies textbooks, if used
The “Desert Detective: Case 3” (Desert Plants and People Connection) from the Gardens curriculum packet
Desert Botanical Gardens video
pp. 20-24 of the Sonoran Desert Hankbook, also provided by the Gardens
paper and pencil for recording in “Plant Use Diary”
samples of each of the featured desert plants, if possible.
Procedures:

1. Assess students' prior knowledge of targeted vocabulary, providing actual samples of the plants or objects where possible, using TPR. For example, ask students to "point to the Saguaro cactus", or, "Show me the picture of the fence".

2. Brainstorm with students about possible uses of the featured plants. Lead discussion to point out that some students have foods or household items which come from plants, while others may have had these things in their own countries. (This strategy is based on Gardner's principles of Visual and Auditory Intelligences, and Terrell's Natural Approach by imersing students in the targeted vocabualry, and also on Chompsky’s “Motherese” language acquisition theory.)

3. In a small group setting, record brainstorming information in their “Plant Use Diary”, which they will be adding to throughout their study of the desert. (Gardner’s Multiple Intelligences, Utter’s Cooperative Learning)

4. Read aloud from the Enrichment suggested materials list (pp25-26 of the Sonoran Desert Handbook), and further explore uses of desert plants with students. (Gardner’s Auditory Intelligence)

5. Have students closely examine the plant samples, and record their observations by either drawing pictures or listing differences/similarities, to prepare them for the pre-visit Nature Walk about the school campus. (TPR)
6. Take students on the Nature Walk around the school to practice recording their observations, which will be an integral part of their field trip. Divide students into small groups or assign partners for this activity. Students will be recording observations in their Plant Use Diary, which become a part of their portfolio and will be used as part of the assessment of the unit. (Uttero's Cooperative Learning and Gardner's Multiple Intelligences)

7. Visit the Botanical Gardens, using the "Desert Detective Case 3" (See Appendix C). The actual trip itself incorporates strategies from each of the theories and methods of Language Acquisition discussed in this study.

8. After visiting the Botanical Gardens, engage students in the suggested "Post-visit Activities". The activity "Creating a Desert Journal" can take advantage of Gardner's Multiple Intelligences and Uttero's Cooperative Learning by having students collaborate on their reflections of their field trip experience. The "Student Evaluation" activity can be adapted by using Asher's TPR, if students are asked to respond to the teacher's questions or comments with a show of hands or by holding up "Smiling" or "Frowning" faces which have been attached to tongue depressors. This method is particularly needed when teaching students of a very low English proficiency level.
Assessment:

1. Student’s “Plant Use Diary”
2. Spelling test on targeted vocabulary
3. Student’s “My Desert Journal” activity from field trip
4. Unit content Test -- see Appendix D
APPENDIX C

THE DESERT DETECTIVE: CASE #3
THE DESERT PLANTS AND PEOPLE CONNECTION
The Desert Detective: Case #3

The Desert Plants and People Connection

The Desert Detective Agency invites you to become a Desert Detective.

The agency has given you clues to help you learn how people have used desert plants for food, construction materials, tools, and other useful items.

Good luck on your search!

Directions:

1. Put a mark in the box each time you find a clue or make an observation.
   As you discover more examples of a clue, add more marks to your box.

2. Be sure to stay on the paths while looking for clues.

3. When you're done, add up all your marks, and fill out the Desert Detective Certificate on the back cover.

Sample:

Long narrow leaves can be used to weave mats and baskets.

Find a plant with long, narrow leaves.
These activities are located on the Plants and People
of the Sonoran Desert Trail.

Mesquite beans can be
ground into flour and
used in many recipes.

Paint brushes can be
made from pieces of
yucca leaves and used
to paint pottery.

Thick yucca or agave
leaves contain long fibers
which can be used to
make rope.

My roots grow right
under the surface of the
ground. This way,
I can get water from
even a little rain.

Please stay on the paths
so that you don’t crush
my roots!

Thank you,
Sammy
Saguaro

Give yourself
a point for
staying on
the paths.

There are cactus forests
and tree forests in the
desert where people go
to collect food and
building materials.

Ramadas are built from
desert plants such as
mesquite, saguaro,
and arrow-weed.

Find a ramada
which provides
shade.

Find a tree with a
trunk large enough
to hold up a roof.

Large trees are needed
to build homes.

Find a desert forest.

Find a natural
source of water.

Water is scarce in
the desert, but it can
be found in streams
and ponds.

In the
mesquite
tree forest
there is
a place
to pound
mesquite beans.

In the grassland there is
a place to make a
yucca paintbrush.

In the chaparral there is a
place to twist agave fiber
into rope.

Try making rope
and give yourself a
mark below.
Long narrow leaves can be used to weave mats and baskets.

Find a plant with long, narrow leaves.

Wood tools can be used in harvesting fruit, for grinding seeds, or for other useful purposes.

Find a tool made out of wood.

Vegetables and meat can be cooked in roasting pits. This helps conserve water and fuel.

Find a roasting pit dug into the ground.

Many cacti produce tasty fruit.

Find a cactus that has fruit on it.

Stone tools can be used for grinding seeds or beans into flour.

Find tools made out of stone.

Trees, shrubs, and grasses can be used to build homes that keep out the rain, wind, and cold.

Find a home made of desert plants.

People use desert plants to make fences that keep animals out of their gardens or from running away.

Find a fence made of desert plants.

Desert people plant crops like corn, beans, and gourds in gardens.

Find a garden where crops are grown.
The Desert Detective! Case #3

What Kind of Detective Are You?

5 to 10 marks  =  Desert Detective
11 to 15 marks  =  Agave Ace
16 to 20 marks  =  Cactus Captain
21 or more marks  =  Super Saguaro Sleuth

Official Desert Detective Certificate

presented to

name

Who earned the title of
detective type

while visiting the Desert Botanical Garden on
date

The Desert Detective Series is presented by the Education Department of the Desert Botanical Garden and is funded in part by Grant No. ES14253472 from the Informal Science Education Division of the National Science Foundation.

The Desert Botanical Garden is a privately funded, nonprofit living museum dedicated to the study of desert plants. Classes and activities on a variety of topics are offered to members as well as to the general public. Activities designed specifically for children include classes and workshops geared toward appreciation of the desert environment.

For more information, contact the Garden at (602) 941-1225 or write to us at: Education Department, Desert Botanical Garden, 1201 North Galvin Parkway, Phoenix, AZ 85008.

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APPENDIX D

SAMPLE TEST
BOTANICAL GARDENS
DESERT DETECTIVE CASE 3
Sample Test
Botanical Gardens
Desert Detective Case 3

Arizona Desert Plants Test

Name four desert plants we saw on our Field Trip:

________________________________________

________________________________________

True or False (Write “T” or “F” on the line.):

The Saguaro cactus lives for about 100 years.____
The agave has long fibers which can be twisted into rope. ____
People used the mesquite leaves to make paintbrushes.____
The Indians of Arizona used desert plants for constructing shelters and ramadas.____
Many people today still use Arizona desert plants as a food source.____

Why are the roots of the Saguaro cactus right under the surface of the ground?

________________________________________

________________________________________

Explain how the Jumping Cholla “jumps” away from us:

________________________________________

________________________________________

Fill In Questions:

The ______________ cactus can be used to make jelly for toast.
The State Tree of Arizona is the ________________.
Arizona’s State Flower is the ________________.
Essay Question:

In the book *Cactus Hotel*, how was the Saguaro used by the different animals? Be sure to describe how the Saguaro changed during its life cycle. Write your answer on the back of this paper.
APPENDIX E

COVER LETTER QUESTIONNAIRE
COVER LETTER

March 1, 1999

Dear E.S.L. Teacher,

I am a teacher in the Scottsdale Elementary School District and at present I am working on my thesis for my Master's degree in E.S.L./Bilingual Education with Ottawa University.

I would like to ask your assistance by completing the enclosed questionnaire. There are two pages and 10 questions. The questionnaire asks your opinion as to how field trips could be included in your curriculum, their value and what methods of teaching language acquisition you found most successful. There are three suggested field trips plus lesson plans. Circle your level of agreement on a 1 through 5 basis as you answer each of the 10 questions.

Please take a few minutes to complete the form and return to me in the enclosed self-addressed envelope at your convenience.

Thank you for your time.

Sincerely,

Demetra Wright

Enclosures
Appendix E
Questionnaire

Name (Optional):
Grade:

Please rate the following statements based on personal opinion or experience teaching Limited English Proficient (LEP) students.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>No Opinion</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1) The field trip I found to be most useful in my curriculum was:

(a) Botanical Gardens 1 2 3 4 5
(b) Fleischer Museum 1 2 3 4 5
(c) Heard Museum 1 2 3 4 5

2) These field trips will provide LEP students an opportunity to explore the area in which they now live and gain a better understanding of the social studies curriculum.

1 2 3 4 5

3) The field trips help LEP students access the history and culture of their new state while they are studying vocabulary and language usage.

1 2 3 4 5

4) These field trips directly relate to my curriculum.

1 2 3 4 5

5) The targeted vocabulary provided by these lesson plans was appropriate to your curriculum.

1 2 3 4 5

6) TPR helped my students be better able to participate in the lesson.

1 2 3 4 5

7) Cooperative learning helped my students be better able to participate in the lesson.

1 2 3 4 5

8) The Natural Approach helped my students be better able to participate in the lesson.

1 2 3 4 5
Appendix E
Questionnaire

9) Using Gardner’s Multiple Intelligences in my lesson planning helped my students be better able to participate in the lesson.
   1  2  3  4  5

10) Using Chomsky’s “Motherese” theory in my lesson planning helped my students be better able to participate in the lesson.
    1  2  3  4

Comments (optional):