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# Project Think: Transforming history into new knowledge

Susan Heather Young

PROJECT THINK: TRANSFORMING HISTORY INTO NEW KNOWLEDGE

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A Project

Presented to the

Faculty of

California State University,

San Bernardino

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In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

in

Education:

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_____

by

Susan Heather Young

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Approved by:

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ABSTRACT

California public school eighth grade students are required to take a California Standards Test (CST) which covers content derived from the middle school History/Social Science standards. Student performance on the CST is used in the calculation of a school's Academic Performance Index (API). The large number of History/Social Science standards presents a challenge to students taking the eighth grade History CST and to the teachers who want to help them adequately prepare.

The existing body of literature indicates that all middle school students, and in particular gifted and talented (GATE) students, can benefit from engagement in a wide variety of learning methodologies, including the use of multimedia technology and the opportunity to use their own creativity and make choices about their learning tasks. Project THINK was designed as a classroom project that combined the use of instructional multimedia technology, linked to the California history/social science standards, which engaged gifted middle school students in the design of these materials.

Teachers and students confirmed that this strategy would be both feasible and acceptable as an instructional

activity. Video design specifications and a product template were developed to guide students in the task of video design. Students in three eighth grade GATE classes produced 62 standards-based videos using Windows Movie Maker. The videos will be viewed prior to students' participation in the CST. Students evaluated the video-production activity as a very satisfactory learning experience. The longer-term impact of the project on student performance on the CST remains to be determined.

# ACKNOWLEDGMENTS

DEDICATION

For Clement and Neal

and the love in my life

Historian's Note:

This thesis was written during Princess Heather's

Renaissance

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# CHAPTER ONE

## BACKGROUND

### Introduction

Near the end of each school year, California public school eighth grade students are required to take a California Standards Test (CST). This test covers content derived from the sixth, seventh, and eighth grade History/Social Science standards. The standards were established by the California Department of Education. Student performance on the California Standards Test is important in light of the current focus on school accountability. In calculating a school's Academic Performance Index (API), the History/Social Science portion of the CST had a weight of 0.200. In order to meet the school's API improvement target, it is important for teachers to find ways to help students do well on each of the CST tests.

### Statement of the Problem

The large number of History/Social Science standards presents a challenge to students taking the eighth grade History CST and to the teachers who want to help them adequately prepare. It is difficult for teachers to cover

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all of the material described in the eighth grade
standards in the year available. The task is made even
more difficult by the fact that the material must be
covered before the CST is given (usually in April or
May). Additionally, students may have a difficult time
recalling the material that they were supposed to have
been taught in previous years according to the sixth and
seventh grade standards.

Unfortunately, few of the students at Vista Heights
Middle School in the Moreno Valley Unified School
District have performed well on the test in the past
three years. Teachers in the Social Studies department at
Vista Heights Middle School have held discussions
regarding solutions for helping students prepare for this
test. The solution that generated the greatest interest
involved showing video taped programs that would quickly
review all of the required standards material. However,
teachers were unable to find a currently available
commercial form of this material.

Purpose of the Project

The purpose of the project was to develop an
instructional teaching plan that consists of all the

material that would need to be included in a review of these standards. Project THINK was designed to help students review for the History/Social Science CST. Accordingly, Project THINK engaged students in the design of these materials. Students in three eighth grade Gifted and Talented Education (GATE) classes created standards-based videos using Microsoft PowerPoint or Windows Movie Maker. These videos will be broadcast school-wide through closed-circuit television in the weeks before the CST in order to help students review the standards-based material to which they were exposed during their eighth grade year. The program was pilot tested with three classes of GATE eighth grade students during the 2006-2007 academic year. The project will be expanded to the sixth and seventh grade GATE classrooms during the 2007-2008 school year. A web site was created that contains all of the unit plan materials and, when the project is expanded, in-service training will be provided so that teachers are prepared to implement the curriculum in their classrooms.

Significance of the Project

Creating these standards-based videos enabled participating students to acquire in-depth knowledge about one of the eighth grade history/social science standards, practice technology skills, and engage in higher-order critical thinking skills. By broadcasting the student-created videos that cover each of the history/social science standards from all three grade levels, additional students school-wide will be given the opportunity to review the curriculum material that was presented to them during their middle school years.

Limitations

A number of limitations were noted during the development of the project. These limitations are the following:

1.  Copyright infringement concerns limited the ability to post student samples on the Project THINK web site. Students used images from a variety of sources while creating their video projects and followed fair use guidelines within the confines of the classroom. However, those guidelines are not sufficient for

publishing content on the Internet. Since student samples are not available on the Project THINK web site, it limits educators' ability to model the program with their students.

2.  Student class assignment limited the ability to pilot test the project with more than one teacher. There is currently only one teacher at Vista Heights Middle School that teaches eighth grade GATE Social Studies. Therefore, it was not possible to judge how effective the project would be if implemented by a teacher with a different teaching style or one who was less adept at the integration of technology.

3.  The time constraints imposed by the university and school system calendars limited the ability to implement the pilot test as a long-term project. Project THINK was designed to be implemented with students over the course of at least two months as an academic trimester research project. However, after university faculty and research review committee approvals were received, the teacher had only three weeks

of time for implementation of the curriculum in the classroom. This could have had a negative effect on students' ability to research their topics and complete their videos.

4.  These same time constraints limited the ability to evaluate the effectiveness of the curriculum. The project was implemented in time for students school-wide to be able to use the videos to review the content of the eighth grade standards before the administration of the CST History/Social Science test. However, student test results were not available by the time this thesis was concluded. Therefore, evidence does not yet exist to determine if the project may have had a positive effect on student scores.

## Definition of Terms

The following terms are defined as they apply to the project.

API: Academic Performance Index – A scale ranging from 200-1000 that measures the academic performance of a public school in California.

CST: California Standards Test – A test taken by students in California public schools designed to measure students' progress towards meeting the California content standards. Tests are taken in the content areas of language arts, math, science, and history/social science.

STAR: Standardized Testing and Reporting – The program in California that is responsible for implementing standardized testing in California public schools, gathering testing data, and reporting the results.

CHAPTER TWO

REVIEW OF THE LITERATURE

Introduction

The literature review focused on three areas that
are relevant to the student demographic and content area
for which Project THINK was designed. The first area of
review is the theory and practice of teaching middle
school students, which is subdivided into learner
characteristics and styles, motivational techniques, and
the use of technology to enhance middle school
instruction. The second area of review is the theory and
practice of teaching gifted students, which is subdivided
into learner characteristics and styles, instructional
strategies, and the use of technology to enhance gifted
student instruction. The third area of review is the
theory and practice of teaching social studies, which is
subdivided into standards-based instruction,
instructional strategies, and the use of technology to
enhance social studies instruction.

Teaching Middle School Students

Learner Characteristics and Styles

Middle school students are in a state of physical developmental change. Students in early adolescence cognitively move from the concrete operational stage to the formal operational stage, i.e., they transition their thinking from working directly with physical objects to the ability to construct theories based on prior experiences. The shift takes place over time, and not all middle school students of the same age have acquired the same cognitive abilities (Winn & Regan, 1991). Reiff (1996) suggested that many middle school students who are labeled academically "at risk" may instead have a cognitive learning style by which their learning is most effective when they can relate theory to real life experiences (a theoretical style known as "field dependence"). They would likely benefit from being provided choices in their learning tasks and a variety of instructional strategies.

Academic and social pressures can negatively affect the school performance of middle school students. Students who lack confidence in their academic or social abilities or who are focused on the reputation they have

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in the eyes of their peers are more likely to avoid asking for help from teachers (Ryan, Pintrich, & Midgley, 2001). Research conducted among eighth grade students concluded that those with negative attitudes towards education and low self-esteem may use academic self-handicapping strategies such as deliberately not studying for a test until the last minute as a way of creating a reason for why they do poorly in school (Midgley, Arunkumar, & Urdan, 1996). Educators need to find strategies for motivating students who have deliberately disengaged from learning.

Educators who teach to the needs of students with different learning styles can make a positive impact on their classrooms. Research by Farkas (1997) demonstrated that a learning-styles based approach to teaching about the Holocaust had a significantly positive effect in the areas of achievement, attitude, empathy, and transfer of skills when compared to students who accessed the curriculum through traditional methods.

Divergent learning styles can have an effect on student achievement on assessments. Research conducted in a web-based environment indicated that performance on a formal assessment varied with students of different

learning styles. Students with the Converger learning style (those who prefer to find practical uses for ideas, solving specific problems, and working with concrete things) performed the poorest on the assessment (Wang, Wang, Wang, & Huang, 2006). Though traditional assessment methods may not meet the needs of all types of learners, research conducted by Moon, Brighton, and Callahan (2005) provided evidence to support the conclusion that alternative assessments, such as performance-based tasks, can be used to assess the level to which middle school students have obtained academic learning standards. Alternative assessments that allow students to demonstrate a practical application of their knowledge could meet the needs of students with Converger learning styles.

Motivational Techniques

Research has indicated that many middle school students experience a "...deterioration in perceptions of self, affect, motivation, and performance during early adolescence, and in particular when they moved to middle-level schools" (Midgley & Edelin, 1998, p. 195). Middle school reform efforts have focused on improving interpersonal relationships through creating academic

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teams and schools-within-schools. Midgley and Edelin (1998) argued that a classroom emphasis on mastery goals rather than achievement goals could improve students' sense of well-being and motivation after their transition to middle school and could lead to improved academic achievement.

The use of learner-centered practices in middle school classrooms has been shown to increase the motivation of this population of students. Meece (2003) described the principles of learner-centered education and the key characteristics of learner-centered classrooms. In her study of survey data from over two thousand middle school students, she found an increase in motivation and engagement when students felt their teachers cared about them, allowed students to voice their opinions, incorporated higher order thinking skills, and adapted instruction to individual needs. Results from her research led Hudley (1997) to suggest that "[p]erhaps classrooms that allow students to select personally relevant learning activities are most likely to support intrinsic motivation in adolescents" (p. 148).

Because middle school students represent a wide variety of developmental stages and cognitive abilities,

it is important to use a variety of instructional strategies to help meet their needs. Winn and Regan (1991) suggested that the curriculum should provide opportunities for active participation, oral language should be encouraged, small learning groups should be regularly used, and students should be able to share what they learn with other interested listeners. Crawford, Krajcik, and Marx (1998) conducted research leading to similar findings, concluding that a group of eighth grade science students were increasingly motivated as they worked collaboratively in a constructivist learning environment.

Lessons that require students to wrestle with controversial topics can be motivating for adolescents because they are encouraged to gain deeper understanding about issues and form personal opinions (Crocco & Cramer, 2005). However, Ehman (2002) suggested that some social studies teachers avoid using the Internet to help students learn about controversial issues because of administrative or district interference and their fear of negative parental reaction.

Use of Technology to Enhance Middle School
Instruction

Computer use in education is likely to have an
increasing effect on student learning over the next
decade. A meta-analysis of thirty-five research studies
from a variety of age group and subject matter
disciplines conducted by Liao (1998) found that the use
of technology led to an overall moderately positive
effect on achievement. Becker and Ravitz (2001) concluded
that professionally-engaged, constructivist-oriented
teachers who possessed a sufficient number of classroom
computers regularly had their students use technology.
Teachers who were active computer users were more likely
to have their students use a wide variety of software
applications, including multimedia authoring and
presentation software.

The introduction of multimedia as a vehicle for
student presentation of their work products can benefit
students in the classroom. It "...can provide a new means
of expression that supports innovative approaches to
education, including cooperative learning, thematic
problem-solving, and individualized project work" (Riley
& Brown, 1998, p. 21). Multimedia technology can provide

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a creative way for students to demonstrate their learning. Coventry (2006) noted that good student-created multimedia projects require research, analysis, and revision, just like successful research papers. O'Leary (2006) believed a real-life audience for multimedia projects motivates students to approach their work as if they were practicing historians.

However, the use of multimedia as an instructional teaching tool requires that multimedia projects be well organized and planned in order to be implemented successfully. Instructional designers need to decide what instructional strategies, learner needs, and content scope of their projects are appropriate for their design structure. Storyboarding and scriptwriting are two important elements to consider when designing multimedia projects (Hadley, Bentley, & Christiansen, 2003). Findings from a study using both qualitative and quantitative data indicated that hypermedia technology could successfully be used to provide a scaffolding structure (i.e., a design framework) to support middle school students in problem-based learning (Liu, 2004). Research conducted over four years by Turner and Dipinto (1997) demonstrated the positive collaborative culture

created at one school by seventh grade students who worked with their peers on hypermedia design tasks.

Teaching Gifted Students

Learner Characteristics and Styles

Students who are identified as gifted often share specific personal and cognitive characteristics. They have above-average intelligences and score well on standardized tests. A study conducted by Mills (2003) concluded that effective teachers of gifted students had similar personality types to this population of students, favoring intuition and thinking. A teachers' personality type has an effect on his or her teaching and learning style. Students who have a personality and learning style that is similar to the instructor's are more likely to be successful in the classroom because the instructor's teaching style may closely match the student's preferred learning style.

Individual learning style preferences can have an impact on a student's ability to achieve success in school. Gifted students often have different learning styles when compared to students in regular education. Findings from a study by Rayneri, Gerber, and Wiley

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(2006) indicated that many gifted middle school students prefer tactile and kinesthetic learning activities, informal seating assignments and the ability to move freely about the classroom, dim lighting, the ability to eat and/or drink while learning, and afternoon and/or evening learning times.

Intellectually gifted children understand why they have successes and failures in school. In a recent study, gifted children reported that their success in school, both generally and in specific academic core areas, was due to inherent ability and long-term effort. Their failures resulted from a lack of long-term effort and task difficulty (Assouline, Colangelo, Ihrig, & Forstadt, 2006). Rayneri, Gerber, and Wiley (2006) believed that underachievement by gifted students could be directly related to lacking the persistence to complete assignments.

Some investigators have targeted the area of motivation in order to understand why underachieving gifted students do not put forth long-term effort and lack persistence. Hoekman, McCormick, and Gross (1999) demonstrated that although gifted students often have intrinsic motivation to succeed in school, a variety of

factors exist that can affect their performance. They
concluded that students must be challenged enough so that
they are not bored, but not so much that they become
burned out. Gentry, Rizza, and Gable (2001) found that
gifted middle school students in rural communities
reported less challenge and less enjoyment than their
peers in urban and suburban settings. This may be due to
a lack of funding for supplemental materials and the low
enrollment rates for gifted students in rural settings.

Plucker and McIntire (1996) studied gifted middle
school students and reported that when they feel bored by
the lack of challenge in a classroom, they employ a
variety of coping strategies. These behaviors include
selective attention and selected effort, involvement with
others, creating their own curricular challenges, and
participating in extracurricular activities. Teachers
need to recognize that gifted students who appear
unmotivated and inattentive may need a more challenging,
differentiated curriculum.

Instructional Strategies

Teachers of gifted students are responsible for
meeting the educational needs of this special population
through a differentiation of the curriculum. Areas in

which this differentiation can occur include depth, acceleration, novelty, and complexity. The lack of high quality textbook materials and curriculum available for gifted students provides a need for teachers to create learning units "...that are powerful, aligned, engaging, authentic, and challenging" (Purcell, Burns, Tomlinson, Imbeau, & Martin, 2002, p. 319). Research suggested that accelerated and enriched curricula were effective strategies to use with gifted students (VanTassel-Baska, Zuo, Avery, & Little, 2002). By employing a variety of instructional strategies, teachers can motivate and challenge gifted students to reach their potential.

A recent study of fast-paced classes (Lee & Olszewski-Kubilius, 2006) investigated the issue of differentiated curriculum. Teachers were surveyed to determine if they implemented specific instructional strategies deemed effective by prior research or empirical evidence. The strategies included individual pacing, curriculum compacting, discussion and higher-level questioning, cluster grouping, enrichment beyond the textbook, and allowing student choice for project assignments. Many of the teachers who were interviewed reported relying on lectures because of the

limited time frame for the classes, but several also
reported using at least some of the recommended
strategies.

Providing students with choices within lesson plans
can empower them and motivate them to become involved.
However, findings from one study indicated that middle
school students felt they had less choice available in
their classrooms than elementary students (Gentry, Rizza,
& Owen, 2002). The authors concluded that "...as students
become more and more responsible for their own learning
and as they are afforded more opportunities to do so,
they can become more effective at goal setting and
challenging themselves, thereby making appropriate
educational choices in their own learning and growth"
(p. 153).

Project-based learning is one type of instructional
strategy that meets the needs of gifted students' learner
characteristics and styles. "Project-based learning
supports gifted children's emotional and social
development, as well as their academic achievement"
(Diffily, 2002, p. 41). Gifted students can use projects
to challenge themselves and work to the level of their

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ability and can create a sense of ownership and control over their own learning.

Gifted students may be frustrated by working in heterogeneous cooperative group settings because the pacing may be slower and they may resent explaining information they have already learned to their peers. However, a study demonstrated that gifted students' attitudes toward school were not harmed by the use of cooperative learning as an instructional supplement (Ramsay & Richards, 1997). Additionally, cooperative group learning projects can be used as a way to help develop the leadership skills of gifted students. Smyth and Ross (1999) found that gifted students took on leadership roles while working on projects with both homogenous and heterogeneous groupings. The authors noted that "...a transformational concept of leadership can provide a powerful engine for generating differentiated instruction suitable for gifted learners" (p. 210).

Use of Technology to Enhance Gifted Student Instruction

Technology can be used by educators to enhance gifted student instruction. Siegle (2004) discussed how technology literacy skills can help meet the goals of

differentiated instruction and how they are compatible with many gifted students' learning styles. The Internet can be used by students to collect, organize, analyze, and synthesize large amounts of information. Students must use higher-order critical thinking skills to determine what information they need and what bias the information they locate might hold. Technology can be used to offer depth and complexity by allowing students to use a variety of applications to gain an understanding of topics and present their findings to an authentic audience.

Teachers of gifted and talented students should integrate technology into their classrooms in ways that best suit their students' unique abilities. Stettler (1998) discussed four learning modes using technology: acquirer, retriever, constructor, and presenter. He argued that in the best mix for allocating time to each of these areas, gifted students might spend forty percent of their time as constructors of information while regular students might spend sixty percent of their time as acquirers of information.

The use of technology can engage students in classroom activities. Riley and Brown (1998) believed

that creating multimedia projects would be more engaging to gifted students than using commercial software because they would be challenged and allowed to use their own creativity.

Technology can also benefit sub-populations within gifted and talented education. Gifted girls can be given opportunities to complete technology-rich activities and uninterested at-risk gifted students might become interested in technology-enhanced projects (Nugent, 2001). Siegle (2004) argued that students who have a talent in technology should be identified through the use of teacher rating scales or by the quality of technology products they produce. These technologically gifted students can then develop their talent through exposure to a variety of software applications, engagement in the development of creative products and presentations, and by allowing them to assist others with technology.

Teaching Social Studies

Standards-Based Education

Federal and state legislation has focused attention on standards-based education. Students in California are assessed on their understanding of the state standards in

the four core academic areas (language arts, math, science, and social studies). The results of these assessments impact school accountability measures. It is important to understand the origins of the content standards and the implications for classroom instruction.

California history/social science instruction has been guided by state policy since 1987. The History-Social Science Framework for California Public Schools, Kindergarten through Grade Twelve was published in 1998. The framework established a sequential curriculum in which students learn about history in a linear fashion without a great deal of overlap in each of the grade levels. For example, the history of the United States is taught in fifth grade from the time period of the early North American inhabitants through the American Revolution. In eighth grade, students cover the time period between the birth of the nation through 1900. In eleventh grade, students concentrate on twentieth-century history. Results of the Standardized Testing and Reporting (STAR) test from 1998 suggested that California's model of in-depth coverage over time may have positively impacted student performance by the time students had reached eleventh grade (Burns, 2004).

The Commission for the Establishment of Academic and Performance Standards crafted the History-Social Science Content Standards for California Public Schools, Kindergarten through Grade Twelve using the framework as a guide. The Standards were adopted by the California State Board of Education in 1998. However, neither the state assessment program nor the state-adopted textbooks were aligned to the newly adopted state standards.

The California Standards Test (CST) was established in 2002. The test comprises 100% of the history-social science portion of the Academic Performance Index (API). An eighth grade comprehensive test covering the sixth through eighth grade standards was created in 2003 "...to help establish middle school accountability" (Burns, 2003, p. 46). State test blueprints make it clear that every standard from sixth, seventh, and eighth grade could appear on the CST in any given year. Due to the state-mandated testing window, eighth grade students take the CST before the end of the school year, thus implying that they have not yet been exposed to every possible standard.

This provides a challenge for teachers who want to adequately instruct their students with a standards-based

education that will prepare them for the history/social science portion of the CST. Attempts to teach only essential standards, selectively weed out standards deemed less important by individual teachers, or go in-depth with only a few standards all fall short of the state's mandates. Burns (2004) stated:

It is certainly permissible and even advisable for teachers to structure the standards for instruction in a way that best suits their style, and to emphasize selected standards that provide the backbone for central themes. But all of the standards should, in one fashion or another, be treated; none should be totally disregarded. (p. 48)

Many teachers in California have been using textbooks that are not aligned with the state content standards. The California State Department of Education adopted a list of approved, standards-aligned history-social science textbooks in 2006. School districts must select textbooks from the approved list and place them in the hands of students by the beginning of the 2007-2008 school year. This will likely focus more attention on history/social science classroom instruction because at that time, the weight of the standardized

assessment results "...will double in establishing a school's API score" (Sabato, 2006, p. 69).

Educators have advocated standards-based instruction in order to improve student performance. Haycock (2001) believed that standards could increase the achievement levels of minority and low-income students. Olson (2006) found a moderately positive relationship between states that had embraced standards-based education and gains in student math achievement.

However, Baines and Stanley (2006) cited negative consequences of standards-based education, including a focus on fixed curricula and a de-emphasis on teacher individualization. Hoover and Patton (2004) noted that students with special needs should have a differentiated curriculum within standards-based classrooms since these students are required to take the standardized tests.

Rothstein (2004) questioned the validity of standardized testing as a basis for measuring the effectiveness of history instruction. He noted that there is little consensus over what facts students must know and no standard best practice for teaching historical content.

So despite superficial consensus that history

instruction should have depth as well as breadth, a

time-limited test cannot be faithful to this

consensus. Teachers who delve into selected

controversies will fail to prepare students for

standardized tests that expect superficial

familiarity with all controversies. Testing

inevitably creates incentives to teach history as a

succession of relatively meaningless facts.

(Rothstein, 2004, p. 1390)

Additionally, Rothstein argued that standards-aligned

state assessments are unable to measure students'

progress towards research and historical thinking

standards – items that require individualized authentic

assessment. The frequently cited history/social science

goal of preparing students for participatory citizenship

can not easily be assessed via multiple-choice questions.

Instructional Strategies

Educators can make their classrooms dynamic by

employing a variety of instructional strategies. Brighton

(2002) recommended "...the use of concept-based

instruction, interdisciplinary connections,

student-generated topics of study, authentic assessment,

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flexible groupings, and differentiated instruction..."
(p. 31) to be the best practices for teaching middle
school social studies. However, she acknowledged the
pressure of the current emphasis on high-stakes testing
that leads some teachers to focus on test-taking
strategies rather than best instructional practices. Moon
(2002) said that using performance assessment and grading
rubrics could allow teachers to use recommended best
social studies teaching practices while addressing
academic content standards.

Teachers of social studies have the opportunity to
have their students conduct research, present multiple
perspectives on historical issues, and develop their
critical thinking skills. They can use a variety of
instructional strategies to engage learners and can
differentiate the curriculum to meet the needs of diverse
student populations. Kaplan (2002) noted that "[t]ypical
instructional methods of social studies, such as
simulations, role playing, and independent study, are
considered to be fundamental learning experiences for
gifted students" (p. 18). Rayneri, Gerber, and Wiley
(2006) found that there was a positive correlation
between the grade point averages of gifted middle school

students in social studies classes and the students' perception that the teacher was motivating and used auditory, tactile, and kinesthetic learning.

Yarema (2002) reviewed a decade of literature on history education. He concluded that "...the literature lends support to utilizing new approaches in order to increase both content literacy and interest in history education" (p. 396). Constructivist learning theory can provide educators with an alternative to the traditional rote memorization often found in history classrooms. Staley (2000) noted that students in constructivist classrooms must actively create their own knowledge within a meaningful context and, in order to be authentic, should be similar to the kinds of activities that professionals do in the real world. The creation of multimedia video presentations could mirror work done by historians who work in museums. It is not enough, however, to put technology into the hands of students; they must be guided in using the technology as an appropriate historical tool. Still, computer skills that students learn in a history classroom can translate into other areas of their lives.

## Use of Technology to Enhance Social Studies Instruction

Computer technology can be integrated into social studies classrooms in order to enhance students' learning experience. Teachers can develop lessons in which students use the Internet to access primary source material, view multimedia material to supplement text-based information, and use software to present their understanding of the state standards.

Crocco (2001) believed that the integration of technology into social science classrooms was important because it could be used to move away from traditional, teacher-centered classrooms and "...toward active, student-centered forms of learning demanding critical and conceptual thinking from all students at all levels" (p. 387). This constructivist approach to learning de-emphasizes drill and practice software in favor of using technology as a tool to help students develop their skills in areas such as questioning, investigating, and problem-solving.

More research is needed in the area of the use of technology to enhance social studies education. Whitworth and Berson (2003) reviewed the literature on the

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effectiveness of computers in social studies instruction.
They found that a third of all reviewed publications and
over half of articles in the National Council for the
Social Sciences publications focused on Internet
resources or web-based lessons. These findings led to the
authors' concern that, if the literature is
representative of the ways in which classroom teachers
typically use technology, students may only be benefiting
from instructional technology in limited ways. They
concluded that more research is needed in several areas,
including "...how technology use in the social studies
impacts academic achievement and learning outcomes"
(Whitworth and Berson, 2003, p. 484).

## Summary

The existing body of literature indicates that all
middle school students, and in particular gifted and
talented students, can benefit from engagement in a wide
variety of learning methodologies, including the use of
multimedia technology and the opportunity to use their
own creativity and make choices about their learning
tasks. There is limited literature that explores the
application of these student-centered teaching and

learning strategies within the context of teaching a history/social science curriculum. Recent changes in California instructional guidelines have made performance on the California Standards Test an even more critical element in the assessment of student mastery of the history/social science standards, which impacts schools' ranking on the Academic Performance Index.

Therefore, a classroom project that combines the use of instructional multimedia technology with gifted middle school students which is linked to the California history/social science standards could be of benefit to individual students, classroom teachers, and school administrators. This project was designed in response to this identified need.

CHAPTER THREE

PROJECT DESIGN PROCESSES

Introduction

Chapter Three documents the steps used in developing

Project THINK, a student-centered, standards-relevant,

multimedia approach to review of $8^{th}$ grade Social Studies

content. The ADDIE method of analysis, design,

development, implementation, and evaluation was used as

the project design framework.

Analysis

Social Studies teachers at Vista Heights Middle

School are interested in implementing research projects

as part of their classroom instruction methodology. A

February 2006 focus group of five teachers who have

worked at the site for more than seven years revealed

that some teachers on campus have required their students

to participate in the National History Day competition

every year in order to practice their research skills.

National History Day is a nationwide competition that

invites students to conduct historical research and

present that research through original papers, exhibit

displays, creative performances, web sites, and video documentaries.

Involvement in the National History Day project began to be implemented at Vista Heights sometime before 1998. The teacher focus-group participants revealed that the project is usually only required to be completed by students in the Gifted and Talented Education (GATE) classes because teachers believe that those students can meet the intellectual demands of the competition. Documents recovered from the site's Social Studies Department Meeting minutes, in addition to the opinions expressed at the focus group, revealed a desire by some teachers to replace the History Day competition with a different project because the project requirements can be difficult to understand and creating excellent projects can be extremely time-consuming for both teachers and students.

All GATE students at the school were required by their teachers to complete a History Day project during the 2003-2004 school year. Evaluation of that activity revealed that the implementation of the project was inconsistent. This fact led to debates about the quality

of the products and questions over how to grade the student work.

In January 2004, the school principal required teachers in the department to have all students complete at least one research project per year. The principal wanted that project to be the History Day project. However, teachers disagreed. A compromise was reached in which the requirement could be met through any research project of the teachers' choosing. The meeting minutes from November 2004 provide further evidence that not all of the teachers wanted to have their students compete in History Day. Teachers believed that the project was too intellectually challenging for the students and that the teachers themselves did not fully understand how to successfully implement the National History Day curriculum. Four of the five teachers in the February 2006 focus group continue to agree with that opinion and would support a department decision to discontinue participation in the History Day competition; one of those five specifically refuses to implement the project next school year regardless of a department-wide decision. The lone dissenter will continue to have her GATE students participate in History Day because it

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provides those students with a differentiated curriculum, as required by the District GATE plan.

The teachers are however motivated to help their students achieve success on the California Standards Test. The September 2004 Social Studies department meeting minutes revealed a discussion about the test and a brainstorming session on ways in which teachers could help their students prepare for it. One suggestion called for eighth grade teachers to play a video each Friday that would review sixth and seventh grade standards-based material. Another teacher noted that the videos could be broadcast via the school's closed-circuit television system so that all of the teachers would be able to view the videos. The minutes from November 2004 provided evidence that many of the teachers in the department supported a video review project as a way to help students improve their test results. Teachers in the February 2006 focus group agreed that they support the idea of a video-based review.

The California State Board of Education approved the adoption of new history/social science instructional materials in 2006. During the 2006-2007 school year, individual school districts have the opportunity to pilot

the instructional programs created by the approved

publishers. An analysis of the test review materials

available in the state-approved publisher textbook pilot

programs was conducted. All instructional programs

included software with the ability to generate

multiple-choice questions so students could review

standards-based material. The eighth grade instructional

program by McDougall-Littell included a supplemental book

that had one-page review summaries of the information

supporting each content standard for sixth, seventh, and

eighth grade. The instructional program by Prentice Hall

included a video review of the content standards for each

of the middle school grade levels. Each video also

contained a set of recall questions for students to

answer as they viewed the video.

One teacher chose to play the Prentice Hall videos

as a review in the two weeks before the May 2006

California Standards Test was administered. The teacher

noted that the video segments were approximately three to

five minutes long and appeared to address the stated

standard. However, not every standard was included, and

some segments only addressed part of the stated content

standard.

A focus group was conducted in June 2006 consisting of five gifted students who were present for each of the days that the review videos were shown. Student response to the videos was not enthusiastic; one called them "okay" while another said they were "boring." However, all five students indicated that they thought the reviews were helpful. One student remarked that she was able to correctly identify the answer to a CST test question because the content had been covered in the sixth grade review video. She did not think that she would have known the answer had it not been for the review. The other students agreed that they felt they were able to correctly answer some of the CST questions because they had recently reviewed the material.

Minutes from September 2006 Social Studies department meetings revealed that teachers analyzed their students' performance on the 2006 California Standards Test. The teacher who showed the review videos noted that her students' scores appeared higher on the sixth and seventh grade portions of the test than the scores of students in other classes who had not participated in the video review sessions. She also provided evidence that test results on those portions of the test improved

relative to her students' performance on the 2005 CST.

The teacher also shared that due to lack of time, her

students had not seen the eighth grade content review

videos, nor had she covered content from the Civil War

portion of the test. She noted that her students' scores

were lower on that portion of the test relative to other

teachers who were able to cover that content before the

test was taken. These findings imply that video reviews

of standards-based content had at least a short-term

positive impact on recall of information.

Evaluation of the effectiveness of any planned

program of standards review would be limited by the fact

that a comparison of an individual student's scores over

time is not possible. Students only take the

History/Social Science portion of the CST in eighth

grade. Therefore, no data exists that could form the

basis of a comparison between a student's scores on the

CST before and after the use of a review program.

A research project could be designed to measure the

effectiveness of standards review programs over a student

population. Demographically similar students could be

enrolled in a study and randomly assigned to two

different methods of review (for example, a text-based

review and a video-based review). An analysis of student CST results could yield information about the benefits of one form of review relative to the other.

A student survey could also be used to evaluate the effectiveness of a standards-based review program. Students could engage in one or more types of standards review programs. After taking the CST, a survey could be administered to measure students' perceptions of the effectiveness of the review methods. Students could also reveal their attitudes towards various types of review.

A student survey could be combined with randomly assigning students to different methods of review in order to further evaluate the effectiveness of a program. The criteria by which a standard review program might be deemed "effective" could include both students' desire to participate in the method of review and a positive relationship between use of that review and an increase in CST scores.

Design

Project Design

Project THINK was designed to allow gifted and talented students to engage in the development of

instructional videos that provided a review of the

California History/Social Science standards. These

student videos would then be used to teach those

standards to other students school-wide. The design

followed the learning mode mix discussed by Stettler

(1998), with gifted students spending a majority of their

time as constructors of information, creating the

standards-based videos, and regular students spending

their time as acquirers of information as they view the

student-created videos.

The design set the gifted students as a type of peer

tutor for the rest of the school's eighth grade students.

Using gifted students as peer tutor can be "...an

effective and beneficial way to serve a multitude of

students" (Coenen, 2002, p. 54-55). A focus group of five

eighth grade student conducted in June 2006 revealed that

the students thought they would be more interested in

watching videos created by their classmates than videos

created by a commercial vendor. Project THINK, therefore,

was designed to both generate student interest in

creating videos because they were for an authentic peer

audience and student motivation to review for the CST

because the content was created by their peers.

## Materials and Methods

Windows Movie Maker and Microsoft PowerPoint were selected as the software to be used in creation of the standards-based videos. Both software applications are available on all of the computers at Vista Heights Middle School and teacher in-service training has been provided on both applications. Additionally, students school-wide have experience using PowerPoint; many students have also used Movie Maker. Students have found both applications easy to learn and fun to use.

Because Project THINK will eventually be used by other teachers, it was important to ensure that everything necessary to implement the project was available on the project web site. A list of all required hardware, software, and technological skills was created. Assurances were made that those items were available to the teacher who would implement the project.

The processes and steps that would need to be undertaken to create a finished video product were delineated by the project author, in order to create a template for replication of the project by other users.

- The sequential steps were outlined in their
  logical order. These included:
  - researching information about a specific
    standard,
  - creating a preliminary script,
  - downloading images that matched the
    content of the script,
  - creating a storyboard that included both
    script and images,
  - importing images and narration into video
    creation software, and
  - creating a finalized version of the video,
    with timing, transitions, and effects.
- Those steps were linked to a timeline of due
  dates (Appendix B), which would help teachers
  and students remain on task as they conducted
  the project. The timeline organized the steps
  of the video creation process into discrete
  tasks. The form provides an optional column
  that can be used by teachers to assign specific
  due dates for each task.

- A standards sign-up sheet (Appendix C) was
  created so that teachers could keep track of
  the standard for which each student was
  creating a video. The benefit of allowing only
  one student name per standards is that teachers
  can monitor the comprehensiveness and
  inclusiveness of the assignments. It is
  important that students create videos that
  cover each of the 8th grade Social Studies
  standards, therefore it is best that each
  student assignment be unique.

- A storyboard format (Appendix D) was also
  created to assist students in the video
  creation process. The format allows students to
  match lines of their scripts to specific image
  files. Creating a storyboard on paper helps
  students organize their information. It also
  facilitates the process of transfer of this
  work to video when they have access to a
  computer.

- A teacher plan for implementation (Appendix E)
  was written that provided teachers with an

understanding of how to implement the project. The plan detailed steps that teachers should take to prepare for the project before its implementation (such as updating the scaffolding materials to include the teacher's grade scale and reserving time in the computer lab). To guide teachers through the video creation process, the plan broke the student timeline of due dates into weekly increments and expanded it into greater detail (for example, suggesting things to look for when grading particular assignments). The plan also suggested teaching plans and other creative suggestions for use of the videos in the classroom.

- All of this content was posted onto the Project THINK web site. On the "Materials" page of the site, teachers can download each of the project materials separately as word files, or they can download a zipped folder that contains all of the materials at once. The web address is: http://www.csnyoung.com/projectthink/index.htm

- A video was created and posted to the web site
  in order to help other teachers understand the
  need for Project THINK and to generate interest
  in implementing it within their own classrooms.
  The video presents on-camera interviews with
  students and teachers from Vista Heights Middle
  School that documents their need for a
  standards review process and interest in a
  video-based design. The video also has
  narration by the teacher/researcher which
  outlines the basic details of Project THINK and
  directs interested parties to investigate the
  materials available on the web site.

Limitations and Resolution of Challenges

A finished student video example was created by the
author of this project. The author's intention was to
post the sample on the Project THINK web site. However,
the author was concerned about the issue of copyright
permissions. The sample had been created within the
context of a classroom following fair use guidelines. The
images used in the sample came from a variety of Internet
sites; official copyright permissions were not obtained.

An investigation into the feasibility of using copyright-cleared images was conducted; however, the cost proved prohibitive. Therefore, an additional web page was created for the Project THINK web site; when the link to the student sample is clicked, an explanation of this concern is displayed. One must click on a verification that the intended use of the sample falls within the context of appropriate fair use guidelines before the student sample is able to be viewed.

## Development

Design Specifications

The main rule that guided the development of the project was "easy to use." The project needed to be easy for teachers to implement in their classrooms and easy for students to complete. If the project appeared to be too complicated, teachers might be less willing to have their classes participate, and students might have a difficult or frustrating time while working on their products.

Another guiding rule for the development of the project was "attention to detail." The project was designed to be specific enough so that any teacher or

student could understand the content without having to
ask for additional clarification. Research by Bishop
suggested that providing a timeline with specific
deadlines could improve the learning experiences of
students conducting independent research projects
(Bishop, 2000). By providing very specific,
detail-oriented instructions, teachers are able to easily
integrate this project into their curriculum and students
are able to create quality products that will benefit all
of the students who watch them.

Alpha and Beta Testing Protocols

During alpha testing, the readability of the project
handouts was reviewed to ensure they were comprehensible
to middle school students. A focus group of Social
Studies teachers at Vista Heights Middle School provided
feedback on the project content and the materials were
revised based on those concerns. A focus group of GATE
students reviewed the content to check that the
directions were clear and understandable. One GATE
student followed the material to create the project and
made note of any area in which the student had
difficulties; changes were made to the project based on
that feedback. During the beta testing phase, a focus

group of teachers reviewed the project again to check for any technical errors, and the project was revised accordingly.

This project was pilot tested in March 2007 with eighth-grade students in the Gifted and Talented Education program. These students were independent learners, intellectually capable of meeting the challenges posed by the project. The teacher of these classes at the target middle school is the lead teacher of the Social Studies department, an active computer user, and a technology in-service trainer. This teacher has the characteristics Becker (2001) concluded would be likely to regularly have students participate in classroom activities similar to the Project THINK design. Becker specifically noted that "...perhaps the objectives of science and social studies teachers of higher-ability classes are more in the direction of having students articulate and communicate ideas than when science and social studies teachers teach classes they perceive as relatively low in ability" (Becker, 2001, p. 8).

Implementation

Approval for this project was granted by the California State University, San Bernardino Institutional Review Board under the Exempt status. Administrative approval for implementation of this project at Vista Heights Middle School was granted by the school's principal.

All students in the eighth grade GATE Social Studies classes at Vista Heights Middle School were invited to participate in the implementation of Project THINK. The teacher gave students a brief overview of the project and information about its purpose. Students in the classes were given a copy of the student directions; the teacher reviewed the directions with each of the groups. Then the teacher played the student video sample to the class using an LCD projector. All students were given two copies of the student assent form (Appendix F) and two copies of the parent consent form (Appendix G) and given the opportunity to gather signatures to indicate their willingness to participate in the research study. There were a total of 94 students in the three classes. Student assent forms were signed by 79 students and 64 parents signed consent forms.

On March 6, 2007, students were allowed to review the eighth grade Social Studies standards and sign their name on a form choosing the standard for which he or she would create a video. Each student was asked to choose a different standard from each other so that videos would be created covering each of the standards. From March 6 through March 23, students worked on the project during each of their Social Studies class periods. The students used information from McDougal Littell's California Standards Enrichment Workbook as a basis for writing the content of the script for their videos. They conducted Internet research to find images to go with their words and were asked to create a Microsoft Word document that cited the sources for their images. All students chose to use Windows Movie Maker in order to create their video projects. Students were asked to turn in finished videos and bibliographies to the teacher's digital drop box. Students who had not returned the assent or consent paperwork were given the option of conducting a textbook-based review or creating a video as part of normal educational practice. No students chose to do the textbook-based review. By March 23, 62 videos and 29 bibliographies had been turned in. Students will be

encouraged to finish their projects in time for the
school-wide implementation of the video review.

## Evaluation

The teacher/researcher implemented the
video-creation stage of Project THINK in her classroom
from March 6 through March 23, 2007. In order to compress
the timeframe for implementation from its intended
trimester-long scale to a three-week scale, the following
modifications were made:

- Step two of the student directions (Appendix H)
  requires that students create and answer three
  research questions about their content
  standards. The compromise made in the interest
  of compressing the timeline was that students
  were directed to the McDougal Littell materials
  that the school district will be purchasing for
  the upcoming school year, to which the
  teacher/researcher had access. Students used
  the California Standards Enrichment Workbook,
  part of the McDougal Littell program, which has
  one page summaries for each of the individual
  content standards. Students used the summaries

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as the basis for their scripts, but were asked to modify the language to make it easy for 8<sup>th</sup> grade students to understand. Some students did additional Internet research to add depth to the summaries and some asked the teacher/researcher for help in understanding content that was unclear.

- Ideally, students will receive feedback on the draft version of their script prior to creation of the video product. Since time was a factor, and since the students used the textbook publisher summaries as the foundation of the scripts, it was assumed that the content was factually correct and that the standards coverage was sufficient for understanding, and, therefore, students in this pilot project did not receive this feedback. However, it is recommended that this step not be skipped in future implementations because it provides a level of quality control to ensure that when the videos are being used to review for the CST, the content is accurate.

- Step six of the student directions requires
  that students create paper storyboards of their
  projects before using the computers. Because
  the computer lab was freely available at all
  times over a two weeks, students who finished
  their scripts were immediately allowed to begin
  working on their video projects. All students
  chose to use Windows Movie Maker, which has a
  storyboard element imbedded into the
  video-creation process, so students did still
  have an organizational framework with which to
  work. In future implementations of the project,
  if students only have a short amount of
  computer use time, paper storyboarding would
  allow students to create the structure of their
  videos in advance, minimizing the time
  necessary to work on the computers.

As students created their standards-based videos,
the teacher/researcher supervised the process, provided
technical support for software applications, and answered
content-based questions. The teacher/researcher made the

following observations about student engagement in the video production process:

- Students were enthusiastic about the project and actively engaged in creating their videos. Several students specifically stated that they thought it was fun to make the videos and that they would like to do a project like this again. Only a few students were off-task during the two-week period that they were in the computer lab. Many students came to the computer lab before school to have additional time to work on their projects.

- Students had few difficulties using the computer technology. Before working on Project THINK, almost all students were proficient with software such as Microsoft Word and PowerPoint, but few had every used Windows Movie Maker, and few had ever used microphones to record narration. However, after a short tutorial on how to use Movie Maker presented by the instructor, students successfully transitioned their previous software experience to the new

software. After a few trial and error
experiences with plugging the headsets and
microphones into the computers, all students
were able to do it correctly without
assistance. Students in need of help with
hardware or software usually asked another
student sitting near them, and issues were
almost always resolved without the need for
teacher intervention.

- Most content-based questions came from students
  who had selected standards that they had not
  previously learned about in class. The
  teacher/researcher found it interesting to note
  that of the first 30 students to choose
  standards, nearly all of them selected
  standards that had not yet been taught. In
  response to questions from these students, the
  instructor provided additional background
  information and depth of details to help them
  understand the content they had read in their
  publisher summaries. Several students expressed
  a desire to be able to do a good job explaining

the content in their videos because they knew

that their friends would be watching the videos

in the future.

On March 22, 2007, blank copies of the student

evaluation questionnaire (Appendix H) were placed at the

front of the classroom. The teacher told the classes that

students who had signed the paperwork to be part of the

research study were being asked to anonymously answer the

questionnaire and place it in a box at the front of the

room. By March 23, 72 questionnaires had been filled out

and placed in the box. Data from the questionnaires was

compiled into a Microsoft Access database. Results were

analyzed to determine the total number and percentage of

responses per category for each of the 15 survey

questions. The results are depicted in Table 1.

Evaluation of Project THINK was limited to the

students' perception of the process of completing the

video projects and their opinions on the use of video for

test review. The time constraints imposed by the

university and school system calendars negatively

impacted the implementation of the project and may have

had an effect on student perceptions. Project THINK was

designed to be implemented with students over the course

of at least two months as an academic trimester research project. However, after university faculty and research review committee approvals were received, the teacher had only three weeks of time for implementation of the curriculum in the classroom. This could have had a negative effect on students' ability to research their topics and complete their videos.

These same time constraints limited the ability to evaluate the effectiveness of the curriculum. The project was implemented in time for students school-wide to be able to use the videos to review the content of the eighth grade standards before the administration of the CST History/Social Science test. However, teachers at Vista Heights Middle School had not yet conducted the video test review with their students by the time the data collection for this thesis was concluded, and therefore evidence does not yet exist regarding student perception of the effectiveness of viewing the Project THINK videos in preparing them for the CST. Additionally, student test results on the CST were not available by the time this thesis was concluded. Therefore, evidence does not yet exist to determine if the project may have had a positive effect on student scores.

Summary

Chapter Three discussed the ADDIE process that was used as the developmental framework for Project THINK. The context for Project THINK was linked to the tradition at Vista Heights Middle School of imbedding research activity into instructional and curriculum design, and aligned with the externally mandated requirements of the California Standards Test. The use of student-developed videos was selected as the project design, after confirmation from both teachers and students that this strategy would be both feasible and acceptable as an instructional activity, and that all materials necessary to implement the project were available and accessible. Video design specifications and a product template were developed by the project teacher/researcher. Research approvals were obtained from all appropriate authorities and participants. The videos were produced and will be viewed prior to students' participation in the CST. Students evaluated the video-production activity as a very satisfactory learning experience. The longer-term impact of the project on student performance on the CST remains to be determined.

CHAPTER FOUR

CONCLUSIONS AND RECOMMENDATIONS

Introduction

Project THINK was designed as a large-scale project

to be implemented across all 8th grade classes at Vista

Heights Middle School. At the time this thesis was

completed, only the first step in implementation was

accomplished – 8th grade GATE students created student

videos based on the 8th grade History/Social Science

standards. Therefore, conclusions presented in this

section will be limited only to this first step of the

implementation process. Recommendations for improving

this stage of implementation and suggestions for future

stages are also presented.

Conclusions

The conclusions extracted from implementation of

this stage of the project are as follows:

1.  Integrating the use of computer technology into

a review process did not interfere with the

goal of having students focus on reviewing the

8th grade Social Studies standards. An important

factor for educators to consider when

integrating computer technology into their instruction is that the technology should not interfere with the learning process. Three-quarters of students surveyed strongly agreed (SA) or agreed (A) that completing the video project was easy. The vast majority (90.3%) of students stated (SA + A) that they did not have difficulty understanding the instructions. More than three quarters (81.9%) of students felt (SA + A) that they did not have difficulty creating the words for their scripts. Only approximately one-quarter of the students disagreed (D) or strongly disagreed (SD) that they had difficulty finding pictures or creating the voice-over narration for their videos. Furthermore, 95.8% of the students strongly agreed or agreed that had learned a lot about the content of their Social Studies standards.

2.  Integrating computer projects into the curriculum can be motivating to eighth grade GATE students. One of the goals of Project THINK was to use technology as a way of

motivating students into reviewing for the 8th
grade History/Social Science CST. Almost all
students surveyed (90.3%) indicated (SA + A)
that completing the project was fun. In
addition, 91.7% of students claimed (SA + A)
they liked to create computer projects. Only
one student disagreed with that statement.

3.    Use of video as a delivery method for test
review can be motivational for eighth grade
students. Given a choice of instructional
strategies such as reviewing for the test via
textbook, answering multiple choice questions,
or video, the 8th grade GATE students
overwhelmingly chose video as the preferred
means of instructional delivery. When asked
which types of test review students wanted to
do (while not eliminating other choices), 1.1%
(SA + A) of students preferred reading the
textbook, 38.9% (SA + A) preferred answering
multiple choice questions, and 81.9% (SA + A)
preferred watching a video. Less than one
percent of students agreed (SA + A) that
reading a textbook or answering multiple choice

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questions was a better way of reviewing for a
test than watching a video. All students except
for one believed that other 8<sup>th</sup> grade students
would prefer the use of video for test review.

Recommendations

The recommendations resulting from the project
follow.

1.    Teachers should follow the trimester-long
      timeline created for implementation of Project
      THINK rather than attempting to compress it.
      Due to the time limitations created by
      university and school system calendars, the
      video-creation phase of the project was
      conducted in three weeks rather than three
      months. While this had the positive effect of
      not allowing for students to procrastinate, it
      had the negative effect of not allowing the
      teacher to evaluate student progress at
      intermediate steps. The teacher was not able to
      check the quality of student scripts before
      students began to create their videos;
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      therefore, some completed videos may lack

essential standards-based content. Additionally, the teacher did not have time to collect bibliographies at intermediate steps, which may have led to students completing the project without regard to appropriate citation of sources.

2.  Student directions should be revised to lower the minimum video length to two minutes rather than three. During the video creation process, it was discovered that not all standards had enough content to justify a three-minute long video.

3.  Incorporate use of multiple choice questioning into the review process. A significant number of students reported in the student questionnaire that they would want to do a test review by answering multiple choice questions. The only student to include a comment on the questionnaire, in response to the question of using textbooks, answering questions, or watching a video for test review, stated that "If it is [a] really big, important test, then we should do both." Project THINK was

originally designed to have students take notes

on each of the standards while watching the

review videos (a step in the Project THINK

implementation process that has not yet been

conducted). However, it may be beneficial

instead to ask students to answer multiple

choice questions while watching the videos,

thus incorporating multiple test review

strategies.

4.  Survey all 8th grade students after they have

viewed the student-created videos to determine

if they felt that watching them was a helpful

review. The second stage of the Project THINK

implementation process is to have all 8th grade

students at Vista Heights Middle School view

the videos that the GATE students created

during the first stage. Since the GATE students

only created videos based on the 8th grade

standards, teachers at Vista Heights will be

conducting textbook reviews and multiple choice

questioning in order to review the 6th and 7th

grade content standards. Therefore, a survey

conducted after the students have reviewed for

the California Standards Test via all three
test review strategies would allow them to
reflect on their opinions as to which
strategies they found to be most motivating and
helpful. Positive feedback from the 8th grade
students for the Project THINK videos would
support implementation of the third stage of
Project THINK – expansion of the project to
include 6th and 7th grade content.

## Summary

Project evaluation data indicate that integration of
computer technology into a standards review process
provided added value to student learning. Students who
produced the videos enjoyed their participation in the
creative task. Full evaluation of the effectiveness of
the first stage of Project THINK was time constrained.
Second and higher-order evaluations, over time, should
provide additional information related to the
effectiveness of this approach as a teaching/learning
strategy for both teachers and students.

Table 1. Project THINK Student Questionnaire Results

| Project THINK Student Questionnaire (N=72) | Strongly agree | | Agree | | No opinion | | Disagree | | Strongly disagree | | No data |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | N | % | N |
| 1. Completing the video was easy. | 12 | 16.7 | 43 | 59.7 | 3 | 4.2 | 14 | 19.4 | 0 | 0 | 0 |
| 2. Completing the video was fun. | 34 | 47.2 | 31 | 43.1 | 4 | 5.6 | 2 | 2.8 | 0 | 0 | 1 |
| 3. I had a hard time understanding the instructions. | 0 | 0 | 2 | 2.8 | 5 | 6.9 | 31 | 43.1 | 34 | 47.2 | 0 |
| 4. I had a hard time creating the words for my script. | 2 | 2.8 | 7 | 9.7 | 4 | 5.6 | 40 | 55.6 | 19 | 26.4 | 0 |
| 5. I had a hard time finding pictures to match my words. | 6 | 8.3 | 10 | 13.9 | 13 | 18.1 | 23 | 31.9 | 19 | 26.4 | 1 |
| 6. I had a hard time creating the voice-over narration for my video. | 4 | 5.6 | 14 | 19.4 | 11 | 15.3 | 31 | 43.1 | 11 | 15.3 | 1 |
| 7. I like to create computer projects. | 41 | 56.9 | 25 | 34.7 | 5 | 6.9 | 1 | 1.4 | 0 | 0 | 0 |
| 8. I learned a lot about the content of my Social Studies standard. | 32 | 44.4 | 37 | 51.4 | 3 | 4.2 | 0 | 0 | 0 | 0 | 0 |
| 9. I think other students would like to watch my video. | 7 | 9.7 | 30 | 41.7 | 27 | 37.5 | 6 | 8.3 | 2 | 2.8 | 0 |
| 10. I would like to watch the videos that other students created. | 25 | 34.7 | 37 | 51.4 | 8 | 11.1 | 0 | 0 | 1 | 1.4 | 1 |
| 11. If I have to review for a test, I want to do a test review by reading the text book. | 2 | 2.8 | 6 | 8.3 | 11 | 15.3 | 17 | 23.6 | 36 | 50.0 | 0 |
| 12. If I have to review for a test, I want to do a test review by answering multiple-choice questions. | 8 | 11.1 | 20 | 27.8 | 15 | 20.8 | 21 | 29.2 | 8 | 11.1 | 0 |
| 13. If I have to review for a test, I want to do a test review by watching a video. | 29 | 40.1 | 30 | 41.7 | 9 | 12.5 | 1 | 1.4 | 1 | 1.4 | 2 |
| 14. I think reading a textbook or answering questions is a better way to review for a test than watching a video. | 0 | 0 | 5 | 6.9 | 19 | 26.4 | 28 | 38.9 | 20 | 27.8 | 0 |
| 15. I think other 8th grade students would like to review for a test by watching a video instead of reading a textbook or answering questions. | 41 | 56.9 | 22 | 30.6 | 8 | 11.1 | 1 | 1.4 | 0 | 0 | 0 |

APPENDIX A

CD OF PROJECT
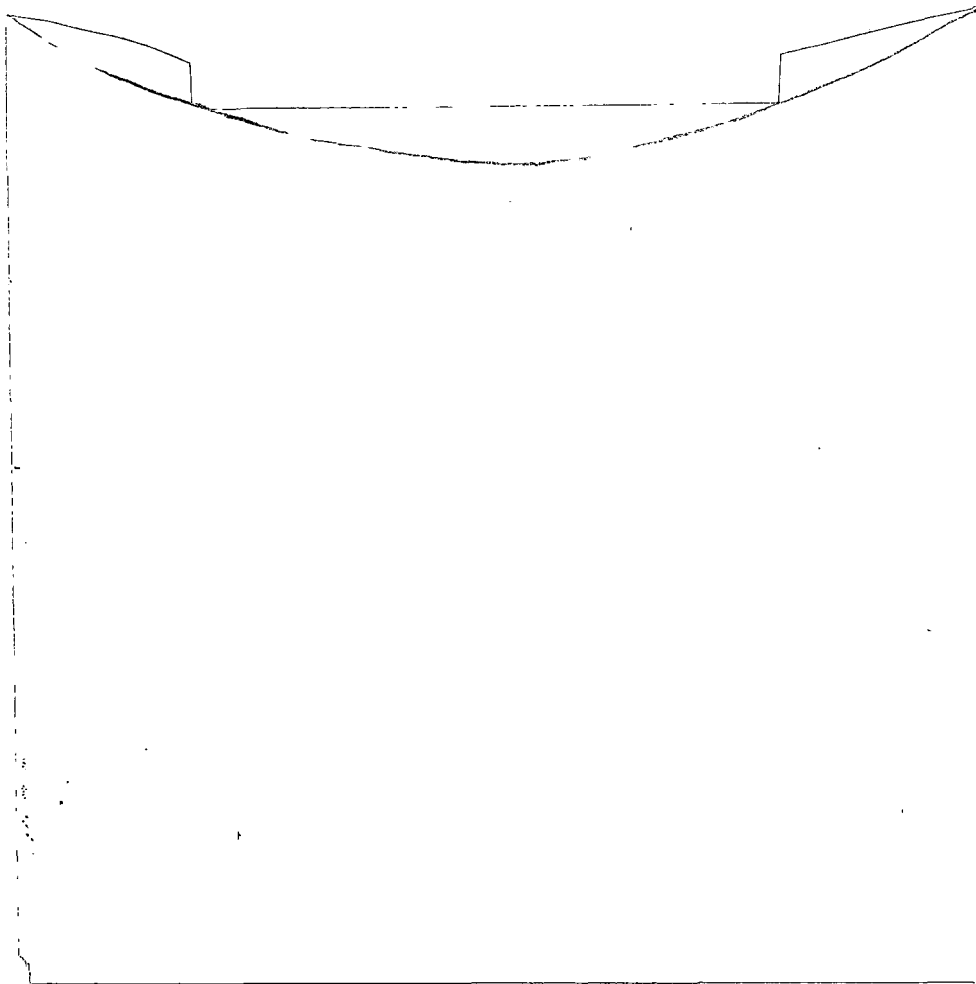
APPENDIX B

STUDENT TIMELINE OF DUE DATES

# Project THINK Timeline of Due Dates

The following is a list of due dates for different parts of the Project THINK video project. Please keep this list so that you know when you will be responsible for turning in each piece of the project. Each piece of the project will be fully explained in advance, so don't worry if you do not understand what each of these items is yet. By completing each item by its due date, you will use your time wisely and will not be tempted to rush your work or try and do the project at the last minute, thus creating a better project. Each piece of the project will be worth up to *add your grading scale*. Make sure you keep a copy of every item you turn in! **Please note that the final project,** *add your due date*, **will not be accepted late!** The final project is worth up to *add your grading scale*.

| Week # | Due Date | Description of Assignment |
|--------|----------|----------------------------|
| 1 | | Introduce project; pass out student directions; choose or assign standards |
| 2 | | Write what the standard means in easier language; write 3 research questions |
| 3 | | Answer the three research questions |
| 4 | | Preliminary 3-5 minute script |
| 5 | | Download images to computer; cite sources in bibliography |
| 6 | | Paper storyboard – revised script with text matched to images |
| 7 | | Preliminary video with narration |
| 8 | | Final video with transitions and effect |

APPENDIX C

STANDARDS SIGN-UP SHEET

| Project THINK Standard Sign-up Sheet | |
|---|---|
| Standard | Student Name |
| 8.1.1 | |
| 8.1.2 | |
| 8.1.3 | |
| 8.1.4 | |
| 8.2.1 | |
| 8.2.2 | |
| 8.2.3 | |
| 8.2.4 | |
| 8.2.5 | |
| 8.2.6 | |
| 8.2.7 | |
| 8.3.1 | |
| 8.3.2 | |
| 8.3.3 | |
| 8.3.4 | |
| 8.3.5 | |
| 8.3.6 | |
| 8.3.7 | |
| 8.4.1 | |
| 8.4.2 | |
| 8.4.3 | |
| 8.4.4 | |
| 8.5.1 | |
| 8.5.2 | |
| 8.5.3 | |
| 8.6.1 | |
| 8.6.2 | |
| 8.6.3 | |
| 8.6.4 | |
| 8.6.5 | |
| 8.6.6 | |

| | |
|---|---|
| 8.6.7 | |
| 8.7.1 | |
| 8.7.2 | |
| 8.7.3 | |
| 8.7.4 | |
| 8.8.1 | |
| 8.8.2 | |
| 8.8.3 | |
| 8.8.4 | |
| 8.8.5 | |
| 8.8.6 | |
| 8.9.1 | |
| 8.9.2 | |
| 8.9.3 | |
| 8.9.4 | |
| 8.9.5 a | (first 4 topics) |
| 8.9.5 b | (last 3 topics) |
| 8.9.6 | |
| 8.10.1 | |
| 8.10.2 | |
| 8.10.3 | |
| 8.10.4 | |
| 8.10.5 | |
| 8.10.6 | |
| 8.10.7 | |
| 8.11.1 | |
| 8.11.2 | |
| 8.11.3 | |
| 8.11.4 | |
| 8.11.5 | |
| 8.12.1 | |
| 8.12.2 | |
| 8.12.3 | |

| | |
|---|---|
| 8.12.4 | |
| 8.12.5 | |
| 8.12.6 | |
| 8.12.7 | |
| 8.12.8 | |
| 8.12.9 | |

APPENDIX D

STORYBOARD FORMAT

## Project THINK Storyboard

Use this story board to plan your presentation. On the "Script" line, write what you will say during your presentation when this slide appears. In the "Graphics" box, write a description of the picture that will appear on this slide, including the file name of the image. Use as many copies of this paper as you need.

Image # _____ Script _____

_____

_____

_____

_____

_____

Graphics

Graphics

Image # _____ Script

_____

___

_____

_____

APPENDIX E

TEACHER PLAN FOR IMPLEMENTATION

# Project THINK Teacher Plan for Implementation

Thank you for choosing to implement Project THINK. The following plan will help you successfully use the project with your students.

## Before Implementation

- Download and review the project documents from the Project THINK website (http://www.csnyoung.com/projectthink/index.htm).

- Update the student directions with information about your grade scale for the project.

- Update the student timeline of due dates with the dates you select for implementation.

- Reserve the school's computer lab for dates in which you will allow students to work on the project in class. You should plan on allowing at least three days for acquiring images and at least eight days for creating the videos (inserting the pictures, recording the narration, creating transitions and effects, synchronizing the timing, etc.).

- Ensure that your students will have access to the necessary technology (computer, Internet access, Windows Movie Maker or Microsoft PowerPoint, headset with microphone).

- Practice using Windows Movie Maker or Microsoft PowerPoint (the software that you chose to have your students use for the project), ensuring that you understand the basic operation of the software. In particular, become familiar with the process of adding recorded narration, since this may be a feature that is new to you. A link to some training software for the programs is available from the Project THINK website.

- Review your school district's textbook adoption materials. Check to see if there is a supplemental resource that effectively summarizes the content of each of the 8th grade Social Studies Standards (for example, McDougal Littell's California Standards Enrichment Workbook). If so, acquire enough copies for each student to use the materials while creating the scripts for their videos.

The following timeline is broken down into weekly increments. You may lengthen or shorten the time you allow for this project, depending on the time and resources available to you. For example, if you have access to an excellent standards review resource, you may be able to shorten the time you allow for students to research the content of their standards. However, you should implement the project in the listed sequential order.

## Week 1
Due Date: _____

- Introduce the project with your students. Discuss the importance of reviewing for the California Standards Test. Generate interest in test review by focusing students' attention on how they will use technology to create videos, and how they will watch review videos instead of doing a text-based review. Play the student sample (available at the Project THINK website) so that students have an understanding of what the videos they create will look like. Encourage students to do their best work by reminding them that other students will watch their video in order to help review for the CST.

- Hand out the student directions and student timeline of due dates. Have students read the information (either to themselves or as a class) and clarify any questions.

- Have students review the 8th grade History/Social Science standards (which can be found online at http://www.cde.ca.gov/be/st/ss/hstgrade8.asp or in newly adopted textbooks). Use the standards sign-up sheet (available at the Project THINK website) to assign individual students to a standard, or allow students to sign up for their preferred standard.

- If you do not have enough computers in your school's computer lab to allow one computer per student, calculate the number of students who will have to work in pairs. Quietly tell students of your choice (perhaps English Language Learners or Special Education students) that they may choose a partner to work with on the project.

- NOTE: Do not allow more than two people to work together on a video project. It is difficult for more than two people to share one computer. Students who are not actively engaged in creating the videos could become classroom management issues.

- Assign students the task (due in one week) of copying their chosen standard, then rewriting it in easier-to-understand language.

- Assign students the task of writing three research questions that they will investigate. The questions should cover all the topics they believe are necessary to fully understanding the content of their selected standard. NOTE: If your students will be using a supplemental standards review resource, this step may be unnecessary.

**Week 2**
Due Date: _____

- Collect the student assignment from last week (standard copied and rewritten in easier language and three research questions, if necessary). Review the assignment for completeness and clarity. Make any necessary comments (for example, point out any difficult vocabulary words that may have been used), then return the papers as soon as possible.
- If it was assigned, collect the three research questions. Review the assignment for completeness and clarity. Make any necessary comments (for example, point out if any necessary topics seem to have been overlooked), then return the papers as soon as possible.
- If students were assigned to write the research questions, assign them the task of answering the research questions (due in one to two weeks).
- If students will be using a supplemental standards review resource, have students read the resource and assign them to take notes on the content, using easier-to-understand language (due in one week).


**Week 3**
Due Date: _____

- If it was assigned, collect the answers to the three research questions. Review the assignment for completeness and clarity. Make any necessary comments (for example, point out if any of the answers seem to lack detail and depth), then return the papers as soon as possible. NOTE: You may choose to assign this task again for another week, asking students to provide more depth to their answers. The more detail their research has, the easier it will be for students to write their scripts.
- If it was assigned, collect the notes on the supplemental standards review resource. Review the assignment for completeness and clarity. Make any necessary comments (for example, point out if the notes seem to lack detail and depth), then return the papers as soon as possible. NOTE: You may choose to assign this task again for another week, asking students to provide more depth to their answers. The more detail their research has, the easier it will be for students to write their scripts.
- Assign students to create their preliminary 2-5 minute script (due in one week). The script should be in easy-to-understand language and should summarize the information a student would need to know in order to understand the selected content standard.

## Week 4
Due Date: _____
- Collect the preliminary scripts. Review the assignment for completeness and clarity. Make any necessary comments (for example, point out if the script appears to be missing necessary information, comment on grammatical errors, focus on issues of clarity), then return the papers as soon as possible. Give students two weeks to revise the scripts.
- Provide computer time for students to search for images that will match the content in their scripts. Instruct students to create a folder for the images, and review how to download images from the internet. Students should create simple names for the image files rather than relying on the default name that the image might have. Discuss copyright issues and fair use guidelines (links are available at the Project THINK website). Discuss your preferred method for bibliography format. At a minimum, students should list the image file name and the website from which it was acquired. Tell students that interesting videos have many images and that movement on screen occurs frequently – they should aim to find at least 50 images for their project. Assign students to acquire images and create a bibliography citing the source for each image (due in one week).

## Week 5
Due Date: _____
- Collect the bibliographies. Review the assignment for adherence to your preferred bibliographic format. Ensure that students are at minimum listing the image file names and the websites from which they were acquired. Assign students to continue to acquire images and updating their bibliographies (due in one week).
- Hand out the storyboard format. Help students understand that creating a storyboard on paper will help them plan what will be in their videos and that it will make it easier for them to create their videos. Demonstrate that sentences from their scripts should be written in the left column and the file names for images that match the content should be written in the right column. Assign students to create a preliminary storyboard (due in one week).

**Week 6**
Due Date: _____
- Collect the storyboards, revised scripts, and revised bibliographies stapled together in a packet (in that order). Review the storyboards to see that the content matches the content in their revised scripts and the file names in the revised bibliographies. Review the assignment for completeness and clarity. Make any necessary comments (for example, point out if the storyboard lacks important content), then return the packets as soon as possible. NOTE: You may choose to assign this task again for another week, asking students to provide more depth to their storyboard, script, and/or bibliography. The more detail their storyboard has, the easier it will be for students to create their videos.
- Provide computer time for students to begin to create their videos. Instruct students on the basics requirements of the software they will use (training links are available at the Project THINK website). Have students refer to their storyboards in order to place their images in the correct order, then have students record the narration of their scripts.
- Instruct students on your preferred naming convention for the student work. For example, video file names might include the standard number and the student's last name (for example, "8.1.2 Smith". Bibliographies might include the same information plus the word "bibliography" (for example, "8.1.2 Smith bibliography").A naming convention will avoid multiple students sending projects with the same title (for example, "standards project". Remind students to save their work often.
- Assign students to create a preliminary video with narration (due in one week).


**Week 7**
Due Date: _____
- Provide computer time for students to continue working on their videos. As students work, have students show you a preview of their preliminary videos. Review the assignment for completeness and clarity. Make any necessary comments (for example, note if the quality of the prerecorded narration is difficult for listeners to understand).
- Remind students that the videos are being created for an authentic audience (other 8th grade students) and motivate the students to create excellent videos that will help their peers review for the test.
- Instruct students on intermediate requirements of the software they are using (for example, the use of transitions and effects). Encourage students to complete the important standards-based content of the videos before they work on the visual design elements of their projects.
- Assign students to create final videos with transitions and effects (due in one week).

**Week 8**
Due Date: _____

- Instruct students in the software requirements for creating a finalized movie and provide computer time for students to finish their videos.
- Instruct students on your preferred method for turning in electronic files and have students turn in their finished movies and final bibliographies.

**After Implementation**

- Check off each standard for which a video was created. Encourage students who have not yet completed their projects to do so as soon as possible.

- Review the student videos for completeness and clarity. Create a plan for reviewing each standard not covered by a completed student video.

- Create a DVD of the standards videos, in order by standard, and distribute the disk to other 8th grade teachers so that they can use the videos to help their students review for the CST.

- Play the student videos for all 8th grade students the week before they will take the CST. Have students take notes on important information about each content standard that they learn while watching the videos. Students should review their notes before completing the History/Social Science portion of the CST.

APPENDIX F

STUDENT ASSENT FORM

## STUDENT INFORMED ASSENT

You are being asked to participate in a research study that will study student attitudes towards test review. This study is being conducted by Susan Young under the supervision of Dr. Brian Newberry, Professor of Science, Math, and Technology Education. This study has been approved by the Institutional Review Board, California State University, San Bernardino.

In this study you will create a Windows Movie Maker video and answer some questions regarding how you feel about test review. The video should take about two weeks of class periods to complete. The survey should take about ten minutes to complete. All of your answers to the questions will be kept private by the researcher. Your name will not be reported with your answers. All data will be reported in group form only. You may receive the group results of this study upon completion by contacting Susan Young at Vista Heights Middle School in room D-4 on June 4, 2007.

Your participation in this study is totally voluntary. You can choose not to create the Windows Movie Maker video, can choose not to answer any survey questions, and can choose to stop being part of this study at any time without penalty. If you participate in the study, you will receive class credit for completing the Windows Movie Maker video. If you choose not to participate in the study, you will be given a textbook-based review assignment instead so that you can earn class credit. You will not receive any benefit from answering the survey questions except that you will help people who make test review projects create better projects. There are no known or expected risks to you if you decide to participate in this study.

If you have any questions or concerns about this study, please feel free to contact Dr. Brian Newberry at 909-537-7630. The extra copy of this assent form is for your records.

**By placing a signature on the line below, I agree that I understand the purpose of this study is to examine student attitudes towards test review. I also agree that I understand that I will make a Windows Movie Maker video and answer some survey questions if I am part of this study. I freely choose to participate in the study. I also acknowledge that I am less than 18 years of age.**

Signature: _____ Date: _____
      Student

APPENDIX G

PARENT CONSENT FORM

## PARENT INFORMED CONSENT

The research study in which your child is being asked to participate is designed to investigate student attitudes towards test review. This study is being conducted by Susan Young under the supervision of Dr. Brian Newberry, Professor of Science, Math, and Technology Education. This study has been approved by the Institutional Review Board, California State University, San Bernardino.

In this study your child will be asked to create a Windows Movie Maker video and respond to several questions regarding his/her attitude towards test review. The video should take about two weeks of class periods to complete. The survey should take about ten minutes to complete. All of your child's responses will be held in the strictest of confidence by the researcher. Your child's name will not be reported with his/her responses. All data will be reported in group form only. You may receive the group results of this study upon completion by contacting Susan Young at Vista Heights Middle School in room D-4 on June 4, 2007.

Your child's participation in this study is totally voluntary. Your child is free not to create the Windows Movie Maker video or answer any survey questions and can withdraw at any time during this study without penalty. If your child participates in the study, he/she will receive class credit for completing the Windows Movie Maker video. If your child does not participate in the study, he/she will be given a textbook-based review assignment instead so that he/she can earn class credit. Your child will not receive any benefit from answering the survey questions other than that of helping designers and developers of test review projects create effective projects. There are no known or anticipated risks associated with participation in this study.

If you have any questions or concerns about this study, please feel free to contact Dr. Brian Newberry at 909-537-7630. The extra copy of this consent form is for your records.

**By placing a signature on the line below, I acknowledge that I have been informed of, and that I understand, the nature and purpose of this study, and I freely consent to allow my child to participate. I also acknowledge that my child is less than 18 years of age.**

Signature: _____Date: _____
       Parent/Guardian

Please print the name of your child: _____

APPENDIX H

PROJECT THINK STUDENT DIRECTIONS

**Project THINK – Student Directions**

Music videos can convey content and emotion through the use of images and sounds. In this project, students will choose one of the grade level standards and create a music video using Windows Movie Maker (or equivalent) that will teach the class about the standard in order to help everyone review for the California Standards Test. This project will require technical skill, creativity, organization, individual determination, and a lot of hard work.

The first step to creating this project involves choosing a grade level standard. The standards can be viewed online at http://www.cde.ca.gov/be/st/ss/hstmain.asp . Please review the standards and select the one in which you are most interested in becoming an expert. Sign up with your teacher to reserve your standard.

The second step to creating this project involves understanding your standard. Use a dictionary to look up any words that you don't understand. Rewrite the standard in your own words, using vocabulary that your classmates would understand. Try to figure out what the standard wants you to know and write down what you think are the most important things. Then write down three research questions that you will need to answer in order to fully understand and teach your standard.

The third step to creating this project involves conducting your research. Use your textbook and the internet, as well as any other available resources, in order to answer your three research questions. Do good, in-depth research so that you can write good, in-depth answers, because the answers to your research questions will help you write the script for your project.

The fourth step to creating this project involves writing your script. Think of your script like an essay, with an introduction, body, and conclusion. The introduction of your script should state the standard and provide any necessary background information. The body of your script should teach other students what they need to learn about the standard in order to review for the test. You should end your script with a summary conclusion.

The fifth step to creating this project involves choosing appropriate images. You will need MANY images; you may scan them into the computer from books or download them from the Internet. The images need to help demonstrate the content of your historical topic and match specific narration of your script. Again, you will need MANY (probably at least 50!) images in order to make your video look good. Create a Microsoft Word file so that you can note the bibliographic information for any images you use, which will allow you to appropriately cite your sources.

The sixth step to creating this project is to create a storyboard. A storyboard allows you to plan your video on paper. Fold a piece of blank, lined paper in half. On the left side, write lines from your script; on the right side, describe the image (writing the specific file name will be helpful) that will appear on screen when that part of the script is narrated. Please see the storyboard format paper for a visual example.

The seventh step to creating this project is to import and arrange your images and record your narration using a software program such as Windows Movie Maker. After the narration has been recorded and the images are in the order you want, use the software to add transitions and effects so that you create an interesting video with a professional look. Your focus should be on helping other students learn the standard, so avoid effects that will distract from that goal.

**GOOD LUCK AND HAVE FUN!!!**

## Rubric for the Project THINK Student Video

| | Excellent | Very Good | Good | Fair | Poor | Incomplete |
|---|---|---|---|---|---|---|
| Content (multiplied by 2) | Excellent content; video clearly conveys historical content | Very good content; video mostly conveys historical content | Good content; video may not completely convey historical content, may be a little short | Fair content; video does not clearly convey historical content, may be short | Poor content, video contains little historical content, may be very short | No project was presented |
| Imagery | Excellent imagery; an excellent amount of highly relevant pictures | Very good imagery; may have a few images that aren't relevant | Good imagery; some images aren't relevant, may have images on screen for too long | Fair imagery; some images aren't relevant, some images on screen too long | Poor imagery; irrelevant images; many images are on screen for too long | No project was presented |
| Audio | Excellent audio; narration was very clear | Very good audio; narration was clear | Good audio; some narration may not be clear | Fair audio; many parts of the narration were not clear | Poor audio; narration was unclear | Did not have any audio |
| Use of Windows Movie Maker (or equivalent) (i.e. titles, transitions, etc.) | Excellent use of program features | Very good use of program features | Good use of program features | Fair use of program features | Poor use of program features | Did not submit a Windows Movie Maker (or equivalent) project |
| Bibliographic end credits | Excellent end credits; fully cited all sources | Very good end credits; some citation errors | Good end credits; sources are somewhat cited | Fair use of end credits; several citation errors | Poor use of end credits; few citations | Did not have bibliographic end credits |

Extra Credit: _____

Description of why extra credit was assessed          Your total: _____

APPENDIX I

PROJECT THINK STUDENT QUESTIONNAIRE

## Project THINK Student Questionnaire

Thank you for completing Project THINK. Please answer the following questions about your experience with the project. Your answers will help future designers and developers of test review projects create better projects. Please circle the answer that best describes your opinion for the following statements.

| | | | | | |
|---|---|---|---|---|---|
| 1. Completing the video was easy. | Strongly agree | Agree | No opinion | Disagree | Strongly disagree |
| 2. Completing the video was fun. | Strongly agree | Agree | No opinion | Disagree | Strongly disagree |
| 3. I had a hard time understanding the instructions. | Strongly agree | Agree | No opinion | Disagree | Strongly disagree |
| 4. I had a hard time creating the words for my script. | Strongly agree | Agree | No opinion | Disagree | Strongly disagree |
| 5. I had a hard time finding pictures to match my words. | Strongly agree | Agree | No opinion | Disagree | Strongly disagree |
| 6. I had a hard time creating the voice-over narration for my video. | Strongly agree | Agree | No opinion | Disagree | Strongly disagree |
| 7. I like to create computer projects. | Strongly agree | Agree | No opinion | Disagree | Strongly disagree |
| 8. I learned a lot about the content of my Social Studies standard. | Strongly agree | Agree | No opinion | Disagree | Strongly disagree |
| 9. I think other students would like to watch my video. | Strongly agree | Agree | No opinion | Disagree | Strongly disagree |
| 10. I would like to watch the videos that other students created. | Strongly agree | Agree | No opinion | Disagree | Strongly disagree |
| 11. If I have to review for a test, I want to do a test review by reading the text book. | Strongly agree | Agree | No opinion | Disagree | Strongly disagree |
| 12. If I have to review for a test, I want to do a test review by answering multiple-choice questions. | Strongly agree | Agree | No opinion | Disagree | Strongly disagree |
| 13. If I have to review for a test, I want to do a test review by watching a video. | Strongly agree | Agree | No opinion | Disagree | Strongly disagree |
| 14. I think reading a textbook or answering questions is a better way to review for a test than watching a video. | Strongly agree | Agree | No opinion | Disagree | Strongly disagree |
| 15. I think other 8th grade students would like to review for a test by watching a video instead of reading a textbook or answering questions. | Strongly agree | Agree | No opinion | Disagree | Strongly disagree |

**If you have any additional comments you'd like to share, please write them on the back of this paper. Thank you very much for your time.**

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