

June 2014

Elementary Students' Attitudes toward Social Studies, Math, and Science: An Analysis with the Emphasis on Social Studies

Sahin Dunder
Trakya University

Anatoli Rapoport
Purdue University

Follow this and additional works at: http://thekeep.eiu.edu/the_councilor

 Part of the [Curriculum and Instruction Commons](#), [Educational Methods Commons](#), [Elementary Education Commons](#), [Elementary Education and Teaching Commons](#), [Junior High, Intermediate, Middle School Education and Teaching Commons](#), and the [Pre-Elementary, Early Childhood, Kindergarten Teacher Education Commons](#)

Recommended Citation

Dunder, Sahin and Rapoport, Anatoli (2014) "Elementary Students' Attitudes toward Social Studies, Math, and Science: An Analysis with the Emphasis on Social Studies," *The Councilor: A Journal of the Social Studies*: Vol. 75 : No. 2 , Article 5.
Available at: http://thekeep.eiu.edu/the_councilor/vol75/iss2/5

This Article is brought to you for free and open access by the Journals at The Keep. It has been accepted for inclusion in The Councilor: A Journal of the Social Studies by an authorized editor of The Keep. For more information, please contact tabruns@eiu.edu.



Elementary Students' Attitudes toward Social Studies, Math, and Science: An Analysis with the Emphasis on Social Studies

Sahin Dundar
Trakya University

Anatoli Rapoport
Purdue University

Introduction

Students' attitudes toward a subject are a fairly accurate measure of their interest in that subject. Attitudes are also an important parameter of the state of education as well as a significant predictor of students' future choices. An attitude is a state of readiness that allows an individual to perceive phenomena in certain ways and to act accordingly; attitudes are also dynamic and have motivational qualities (Halloran, 1967). Since attitudes influence behavior, they play an important role in a decision-making process. If a given subject is to continue to have public support at local, state, or federal levels, attitudes toward this subject should be positive. Negative attitudes toward a subject may result in the decline of resources because all present day stakeholders were at some time students whose attitudes toward subjects can persist (Haladyna, Shaughnessy, & Olsen, 1979). Scientists have also recorded a positive correlation between attitude and achievement, and between attitude and career preferences related to subjects (Haladyna et al., 1979; Haladyna, Shaughnessy, & Redsun, 1982; Haladyna, Shaughnessy, & Shaughnessy, 1983).

For decades, studies have been conducted to record students' attitudes toward various subjects so that educators could understand which school subjects are considered more preferable, likable, difficult, or important. When it comes to attitudes towards social studies, the importance attributed to this subject in schools does not correspond with its mission; it is not deemed as important as it should be (Schug, Todd, & Beery, 1982; Wood et al., 1989). This underemphasis on the importance of social studies is one of the reasons why the subject has been often ignored compared to other core subjects such as reading, science, or mathematics (Bailey, Shaw & Hollifield, 2006; Thornton & Houser, 1996). Many researchers have noted that students in elementary and middle schools see social studies as one of the least interesting and most irrelevant subjects in the school curriculum (Chapin, 2006; Chiodo & Byford, 2004; Goodlad, 1984; Greenblatt, 1962; Haladyna & Thomas, 1979; Herman, 1963; Inskip & Rowland, 1965; Stodolsky, Salk, & Glaessner, 1991; Wolters & Pintrich, 1998). For example, Greenblatt's (1962) study among 3rd, 4th, and 5th graders (n=282) demonstrated that elementary school students find mathematics (arithmetic) and science more enjoyable than social studies. Herman (1963) collected data

The Councilor: A Journal of the Social Studies
Vol. 75, No. 2 (2014)



from 4th, 5th, and 6th graders (n=214) and found that students liked social studies less than science and mathematics (arithmetic) and that social studies was the least liked subject. In Inskip and Rowland's (1965) study among upper elementary students (n=550), participants ranked social studies lower than mathematics and science. As a result, upper elementary students were less interested in social studies than any other subject. Fifth grade students who were interviewed by Stodolsky et al. (1991) ranked social studies 7th among 10 subjects. This dramatic state of social studies led Chiodo and Byford (2004) to conclusion that "historically, when elementary and high school students were surveyed, the most dominant negative perception was that social studies was boring and had little relevance to their lives" (p. 16).

Researchers outline a number of reasons for students' predominantly negative attitudes toward social studies. Although all the reasons are interconnected, they can be roughly split into two categories: motivational and curricular. Many scholars and practitioners point to the lack of interest or motivation among students as the major reason for their negative attitudes toward social studies. On the one hand, motivational deficiency is explained by the perception that social studies is boring and won't provide life skills (Chiodo & Byford, 2004; Schug et al., 1982). On the other hand, social studies was "uninteresting" because the students were not active in social studies classes and they considered the classes boring and difficult (Russell & Waters, 2010, Schug, et al., 1982; Stodolsky et al., 1991).

Marlow and Inman (1997) asserted that, regardless of subject, "teaching in the elementary school often suffers from two conditions: (1) a lack of time spent on the subject and (2) passive teaching strategies which rely on textbooks use" (p. 2). Clearly, social studies is affected by both conditions, which might have an impact on students' attitudes as well. Abundant research (Bailey et al., 2006; Burroughs, Groce & Webeck, 2005; Burstein, Hutton, & Curtis, 2006; Finkelstein, Nielsen, & Switzer, 1993; Goodlad, 1984; Houser, 1994; McEachorn, 2010; VanFossen, 2005; VanFossen & McGrew, 2008; Wood et al., 1989) demonstrates that insufficient time is allocated for social studies instruction, particularly in elementary schools. Other research (Bolinger & Warren, 2007; Burstein et al., 2006; Lintner, 2006; Wood et al, 1989) reveals that teacher-centered techniques are still dominant instructional strategies and that textbooks remain the dominant materials in social studies classrooms. Governale (1997) asserted that teacher-centered and textbook-based social studies instruction negatively affect students' attitudes toward the subject. According to Haladyna and Shaughnessy (1981), social studies is viewed as one of the least-liked and unimportant subjects by students because of teacher-centered activities such as lecture and recitation. Burstein et al. (2006) pointed out that because teachers allocated less time for social studies, they had to adhere to less time-consuming teacher-centered strategies to cover the material, as opposed to student-centered strategies, which required more time.



Findings concerning grade level and attitudes towards social studies are not consistent. For instance, in a study conducted by Chiodo and Byford (2004), students conveyed that they became more interested in social studies as they progressed to upper grade levels. However, Haladyna and Thomas (1979) found 4th graders' attitudes to be higher than those of 5th graders; similarly, Kariuki and Wilson (2003) found that students' attitudes towards social studies lowered from grade 5 through grade 8. It seems that factors other than grade level contribute to students' attitudes.

The purpose of the current study was (a) to compare upper elementary students' attitudes towards social studies, science, and math; and (b) to find out whether there is a significant difference between 4th and 5th grade students' attitudes towards social studies.

Methodology

Participants

The participants in the present study were 4th and 5th grade students (n=348) from 3 elementary schools in a Midwestern state in the U.S. Out of 348 participants, 164 (47.1%) were boys and 184 (52.9%) were girls. 175 participants (50.3%) were Grade 4 students, and 173 (49.7%) participants were Grade 5 students. Participants with missing data were excluded from the study.

Data collection and instrumentation

An invitation to participate in the study was sent electronically to nine elementary schools. Three schools agreed to participate. Preliminary meetings with school principals and 4th and 5th grade teachers were conducted approximately three weeks before data collection. The purposes of those meetings were: (a) to introduce the study to teachers, (b) to recruit participants, (c) to schedule a date for data collection, and (d) to distribute parent consent forms and student assent forms. On scheduled days in each school, all grade 4 and 5 students were brought to a school cafeteria where the survey was administered. Only those students whose parents signed consent forms participated in the study.

Data were collected with the help of the *Subject Perception Instrument (SPI)*. The items in the SPI were created, adapted or adopted from previous studies (Chen, 2005; Fennema & Sherman, 1976a, 1976b; Gable & Roberts, 1983; Goodlad, 1984; Haladyna, Shaughnessy, & Olsen, 1980; Lewis, 1979; Menis, 1989; Pintrich, Smith, Garcia, & McKeachie, 1991; Simpson & Oliver, 1985; Wang & Wildman, 1995). The SPI included three sub-instruments, namely: (1) *Subject Attitude Scale (SAS)*, (2) *Perceived Value Scale (PVS)*, and (3) *Subject Ranking Questionnaire (SRQ)*. However, in the current study only the results from the



SAS and SRQ were presented and discussed. Characteristics of the SAS and SRQ are as follows:

- *The SAS* measures attitudes towards subjects (e.g., social studies, science, or mathematics). The SAS consists of three sub-scales: (a) value sub-scale (5 items), (b) usefulness sub-scale (3 items), and (c) willingness and enthusiasm sub-scale (5 items). The SAS consisted of four-point Likert-type items that participants answered whether they strongly agree, agree, disagree, or strongly disagree with each statement of the scales. Students answered each item for social studies, science, and mathematics. To make the scale age appropriate, 4 pictures were used: smiling face (strongly agree), half-smiling face (agree), half-frowning face (disagree), and frowning face (strongly disagree). For measurement purposes, each answer was assigned a numeric value from 4 (strongly agree) to 1 (strongly disagree). Thus, the higher scores from the scales reflected the more positive attitudes towards the subjects.
- *The SRQ*: This part of the instrument consisted of three ranking questions related to likeness, importance, and hardness (Goodlad, 1984). Students were asked to rank the subjects—social studies, science and mathematics—in order in terms of likeness, importance, and hardness. The final scores were calculated by assigning points from 3 to 1: the most liked, most important, and hardest subject received 3 points; the least liked, least important, and easiest subject received 1 point.

Data analyses

In the study, repeated measures one-way ANOVA and an independent sample t-test were performed for comparisons using the Statistical Package for Social Sciences (SPSS) software program. Repeated measures one-way ANOVA was computed to determine if there is a significant difference among students' social studies, science and mathematics SAS scores; an independent sample t-test was used to determine if there is a significant difference between fourth and fifth graders' social studies SAS scores.

Results

Research findings are presented in the following section in accordance with the research questions. The first research question was: *Is there a significant difference among students' social studies, science, and mathematics value, usefulness, and willingness and enthusiasm attitude scores?* The statistics regarding this research question are presented in Table 1.



Table 1
Descriptive Statistics and Results of Repeated Measures One-Way ANOVA (n=348)

Scales/Subscales	Social Studies		Science		Mathematics		F	df*	p
	M	SD	M	SD	M	SD			
Value	3.33	.55	3.47	.48	3.64	.51	42.37	1.81, 627.48	.00
Usefulness	3.15	.72	3.42	.53	3.70	.50	94.47	1.76, 611.90	.00
Willingness and Enthusiasm	2.79	.89	3.17	.78	3.14	.88	23.65	1.87, 648.18	.00
Overall Subject Attitude	3.08	.62	3.34	.53	3.46	.56	47.11	1.86, 644.48	.00

*In all comparisons, since Mauchly's test indicated that the assumption of sphericity had been violated, degrees of freedom were corrected using Huynh-Feldt estimates of sphericity (Field, 2009).

As seen in Table 1, in general, students held less positive attitudes towards social studies ($M=3.08$, $SD=.62$) than science ($M=3.34$, $SD=.53$) and mathematics ($M=3.46$, $SD=.56$). For the value sub-scale, students scored social studies ($M=3.33$, $SD=.55$) as less valuable than science ($M=3.47$, $SD=.48$) and mathematics ($M=3.64$, $SD=.51$). For the usefulness subscale, students scored social studies ($M=3.15$, $SD=.72$) as less useful than science ($M=3.42$, $SD=.53$) and mathematics ($M=3.70$, $SD=.50$). For the willingness and enthusiasm sub-scale, students were less enthusiastic about social studies ($M=2.79$, $SD=.89$) than science ($M=3.17$, $SD=.78$) and mathematics ($M=3.14$, $SD=.88$).

The repeated measures ANOVA revealed that there was a significant difference among the students' overall subject attitude scores, $F(1.86, 644.48)=47.11$, $p=.000$, partial $\eta^2=.12$; there was a significant difference among the students' subject value scores, $F(1.81, 627.48)=42.37$, $p=.000$, partial $\eta^2=.11$; there was a significant difference among the students' usefulness scores of the subjects, $F(1.76, 611.90)=94.47$, $p=.000$, partial $\eta^2=.21$; and there was a significant difference among the students' willingness and enthusiasm scores on the subjects, $F(1.87, 648.18)=23.65$, $p=.000$, partial $\eta^2=.06$. Post hoc analyses using the Bonferroni correction for significance between pairs indicated that students' social studies value, usefulness, and enthusiasm scores were significantly lower than those of science ($p=.000$) and mathematics scores ($p=.000$).



The second research question was: *Out of social studies, science, and mathematics, which subject do students like the most and the least, which subject do students think to be the most and the least important, and which subject do students think to be the hardest and easiest?* For this research question, participants were asked to rank social studies, science, and math in terms of likeness, importance, and hardness. Each most liked, most important, and hardest choice received 3 points. Each least liked, important, or easiest choice received 1 point. Table 2 presents the results of the ranking.

Table 2

The Ranking of the Subjects in order of Likeness, Importance and Hardness

Subject	N	Likeness		Importance		Hardness	
		M	SD	M	SD	M	SD
Social Studies	348	1.69	.79	1.64	.73	2.18	.80
Science	348	2.07	.70	1.77	.66	1.92	.70
Mathematics	348	2.25	.85	2.59	.71	1.90	.91

As seen from Table 2, participants considered mathematics the most liked, the most important and the least hard subject. In turn, social studies was considered the least liked, least important, and hardest subject.

The third research question was: *Is there a significant difference between 4th grade students and 5th grade students in regard to their social studies value, usefulness, and willingness and enthusiasm attitude scores?* The results related to this research question are presented in Table 3.

Table 3

Independent T-Test Results for Social Studies Attitude by Grade Level

Scale/Sub-scale	Grade	N	M	SD	t	df	p
Value	Four	175	3.37	.54	1.29	346	.197
	Five	173	3.29	.55			
Usefulness	Four	175	3.28	.64	3.47	335.41	.001
	Five	173	3.02	.76			
Willingness and Enthusiasm	Four	175	2.90	.86	2.32	346	.021
	Five	173	2.68	.91			
Overall Subject Attitude	Four	175	3.17	.61	2.63	346	.009
	Five	173	2.99	.63			



Independent sample *t*-test results revealed that there was not a significant difference between fourth ($M=3.37$, $SD=.54$) and fifth grade students' ($M=3.29$, $SD=.55$) value scores, $t(346)=1.29$, $p=.197$. However, (1) fourth graders ($M=3.28$, $SD=.64$) thought social studies to be more useful than fifth graders ($M=3.02$, $SD=.76$), $t(335.41)=3.47$, $p=.001$, Cohen's $d=.37$, (2) fourth graders ($M=2.90$, $SD=.86$) were more enthusiastic about social studies than fifth graders ($M=2.68$, $SD=.91$), $t(346)=2.32$, $p=.021$, Cohen's $d=.25$, and (3) according to the overall attitude scores, fourth graders ($M=3.17$, $SD=.61$) hold more positive attitudes towards social studies than fifth graders ($M=2.99$, $SD=.63$), $t(346)=2.63$, $p=.009$, Cohen's $d=.29$.

Discussion

Data from this study indicated that upper elementary students (Grades 4 and 5) demonstrated more negative attitudes toward social studies than toward math or science. They consider social studies harder, less valuable, and less useful than math and science. As a result, elementary students are less willing or enthusiastic to learn social studies. These results are consistent with the results of previous studies (Chapin, 2006; Chiodo & Byford, 2004; Goodlad, 1984; Greenblatt, 1962; Haladyna & Thomas, 1979; Herman, 1963; Inskip & Rowland, 1965; Stodolsky et al., 1991; Wolters & Pintrich, 1998) that report overall less favorable attitudes toward social studies among elementary students than toward other subjects.

Many observers admit that among various reasons for the prevailing negative attitudes toward social studies among elementary students the most obtrusive is the marginalization of social studies as evidenced by the decrease of time spent on social studies instruction in the classroom (Lintner, 2006; McEachorn, 2010; VanFossen, 2005; VanFossen & McGrew, 2008). As mentioned earlier, the constant decrease in the number of minutes that teachers allocate for social studies instruction usually results in a very formal approach to teaching social studies. This, in turn, negatively affects students' interest in the subject and motivation to learn it. Among the most compelling reasons that reduce the amount of time spent on instruction in social studies, researchers usually identify: (a) standardization policies, (b) high-stakes testing, and (c) deficiencies of existing curricula and perceived grade level disparity in elementary social studies (Burroughs et al., 2005; Lintner, 2006). Predominantly restrictive standardization policies in regard to social studies instruction aggravated by Goals 2000 and No Child Left Behind have long been under the critical scrutiny of researchers (Bailey et al., 2006; McEachorn, 2010; VanFossen, 2005). The increased emphasis on literacy and mathematics mandated by federal programs and standards diverted attention from social studies in elementary school and led to the neglect of social studies in elementary school (Bailey et al., 2006).



The problem with students' attitudes toward social studies is not that these attitudes are more negative than attitudes toward other subjects. The negative attitudes problem can be seen as two-dimensional: on the one hand, elementary students' negative attitudes toward social studies means that these students will most likely retain low interest toward social studies in the future; on the other hand, it also means that students are not acquiring knowledge and skills that are critical for democratic citizenship. Obviously, school is not the only place where students acquire civic competence. However, school—unlike other institutions—is mandated to create an environment where students learn and obtain knowledge, skills, and dispositions necessary to become active participants in a democracy. If school fails to instill basic concepts and ideas of democratic citizenship on the elementary level, accomplishing these goals will be much more difficult later. Thus, students' negative attitudes are a symptom, an indicator of a complex problem in social studies education that need serious and careful attention.

The purpose of this study was to identify the problem rather than to suggest how to solve the problem of negative attitude and low interest to social studies in elementary school. Obviously, the consistency of the results of similar studies is a clear evidence that the discussed problem is no longer simply a classroom or school level issue. It is an institutional problem and must be addressed first and foremost on an institutional level. However, every teacher in every classroom, if she or he is concerned about the future of our democracy and public good, should be equally concerned about the falling interest to social studies among elementary students. As demonstrated by researchers (Bolinger & Warren, 2007; Chiodo & Byford, 2004; Russell & Waters, 2010), the use of active techniques and strategies in the social studies classroom, integration of social studies' concepts into literacy, math, and science; interdisciplinary and multidisciplinary approach to teaching civic knowledge and participatory skills have a positive effect on students' attitudes toward social studies. Thus, the classroom teachers' and building administrators' awareness of the state of social studies and their interest in teaching social studies are becoming a critical aspect to resist marginalization of social studies in elementary school.



References

- Bailey, G., Shaw, E. L., Jr., & Hollifield, D. (2006). The devaluation of social studies in the elementary grades. *Journal of Social Studies Research*, 30(2), 18-29.
- Bolinger, K., & Warren, W. J. (2007). Methods practiced in social studies instruction: A review of public school teachers' strategies. *International Journal of Social Education*, 22(1), 68-84.
- Burroughs, S., Groce, E., & Webeck, M. L. (2005). Social studies education in the age of testing and accountability. *Educational Measurement: Issues and Practice*, 24(3), 13-20.
- Burstein, J. H., Hutton, L. A., & Curtis, R. (2006). The state of elementary social studies teaching in one urban district. *Journal of Social Studies Research*, 30(1), 15-20.
- Chapin, J. R. (2006). Do elementary school students and their teachers really dislike social studies? *The Social Studies*, 97(5), 187-188.
- Chen, J. J.-L. (2005). Relation of academic support from parents, teachers, and peers to Hong Kong adolescents' academic achievement: The mediating role of academic engagement. *Genetic, Social and General Psychology Monographs*, 131(2), 77-127.
- Chiodo, J. J. & Byford, J. (2004). Do they really dislike social studies? A study of middle school and high school students. *Journal of Social Studies Research*, 28(1), 16-26.
- Fennema, E., & Sherman, J. A. (1976a). Fennema-Sherman mathematics attitudes scales: Instruments designed to measure attitudes toward the learning of mathematics by females and males. *Journal for Research in Mathematics Education*, 7(5), 324-326.
- Fennema, E., & Sherman, J. A. (1976b). Fennema-Sherman mathematics attitudes scales: Instruments designed to measure attitudes toward the learning of mathematics by females and males. *JSAS Catalog of Selected Documents in Psychology*, 6(2) (Ms. No. 1225).
- Field, A. (2009). *Discovering statistics using SPSS* (3rd edition). London: Sage Publications.
- Finkelstein, J. M., Nielsen, L. E., & Switzer, T. (1993). Primary elementary social studies instruction: A status report. *Social Education*, 57(2), 64-69.
- Gable, R. K., & Roberts, A. D. (1983). An instrument to measure attitude toward school subjects. *Educational and Psychological Measurement*, 43(1), 289-293.
- Goodlad, J. I. (1984). *A place called school: Prospects for the future*. New York: McGraw-Hill.
- Governale, J. (1997). *Improving attitudes of students toward social studies*. M. A. Research Project, Saint Xavier University and IRI/Skylight. (ERIC Document Reproduction Service No. ED424173)
- Greenblatt, E. L. (1962). An analysis of school subject preferences of elementary school children of the middle grades. *The Journal of Educational Research*, 55 (10), 554-560.
- Haladyna, T. M., & Shaughnessy, J. (1981). *Student, teacher, and learning environment correlates of attitudes toward the sciences*. (ERIC Document Reproduction Service No. ED202677)
- Haladyna, T., & Thomas, G. (1979). The attitudes of elementary school children toward school and subject matters. *The Journal of Experimental Education*, 48 (1), 18-23.



- Haladyna, T., Shaughnessy, J., & Olsen, B. (1979). *Correlates of attitudes toward social studies*. (ERIC Document Reproduction Service No. ED179456)
- Haladyna, T., Shaughnessy, J., & Olsen, R. (1980). *Construct validation of an inventory of affective aspects of schooling*. (ERIC Document Reproduction Service No. ED190610)
- Haladyna, T., Shaughnessy, J., & Redsun, A. (1982). Relations of student, teacher, and learning environment variables to attitudes toward social studies. *Journal of Social Studies Research*, 6(2), 36-44.
- Haladyna, T., Shaughnessy, J., & Shaughnessy, J. M. (1983). A causal analysis of attitude toward mathematics. *Journal for Research in Mathematics Education*, 14(1), 19-29.
- Halloran, J. D. (1967). *Attitude formation and change*. Leicester, U.K.: Leicester University Press
- Herman, W. L., Jr. (1963). How intermediate children rank the subjects. *The Journal of Educational Research*, 56(8), 435-436.
- Houser, N. O. (1994). *Social studies "on the backburner": Views from the field*. (ERIC Document Reproduction Service No. ED381461)
- Inskip, J., & Rowland, M. (1965). An analysis of school subject preferences of elementary school children of the middle grades: Another look. *The Journal of Educational Research*, 58(5), 225-228.
- Kariuki, P., & Wilson, L. (2003). *The effect of students' gender on attitude toward social studies and the illustration of historical images at a selected middle school*. (ERIC Document Reproduction Service No. ED482521)
- Lewis, J. (1979). A reading attitude inventory for elementary school pupils. *Educational and Psychological Measurement*, 39(2), 511-513.
- Lintner, T. (2006). Social Studies (still) on the back burner: Perceptions and practices of K-5 social studies instruction. *Journal of Social Studies Research*, 30(1), 3-8.
- Marlow, L., & Inman, D. (1997). *Status report on teaching in the elementary school: math, science, and social studies*. (ERIC Document Reproduction Service No. ED409283)
- McEachorn, G. (2010). Study of allocated social studies time in elementary classrooms in Virginia: 1987-2009. *Journal of Social Studies Research*, 34(2), 208-228.
- Menis, J. H. (1989). Attitudes towards school, chemistry and science among upper secondary chemistry students in the United States. *Research in Science and Technological Education*, 7(2), 183-190.
- Pintrich, P. R., Smith, D. A. F., Garcia, T., & McKeachie, W. J. (1991). *A manual for the use of the motivated strategies for learning questionnaire (MSLQ)*. National Center for Research to Improve Postsecondary Teaching and Learning, Ann Arbor, MI. (ERIC Document Reproduction Service No. ED338122)
- Russell, W. B., & Waters, S. (2010). Instructional methods for teaching social studies: A survey of what middle school students like and dislike about social studies instruction. *Journal for the Liberal Arts and Sciences*, 14(2), 7-14.
- Schug, M. C., Todd, R. J., & Beery, R. (1982). *Why kids don't like social studies*. (ERIC Document Reproduction Service No. ED224765)



- Simpson, R. D., & Oliver, J. S. (1985). Attitude toward science and achievement motivation profiles of male and female science students in grades six through ten. *Science Education*, 69(4), 511-525.
- Stodolsky, S. S., Salk, S., & Glaessner, B. (1991). Student views about learning math and social studies. *American Educational Research Journal*, 28(1), 89-116.
- Thornton, S. J., & Houser, N. O. (1996). *The status of the elementary social studies in Delaware: View from the field*. (ERIC Document Reproduction Service No. ED404239.
- VanFossen, P. J. (2005). "Reading and math take so much of the time...": An overview of social studies instruction in elementary classrooms in Indiana. *Theory and Research in Social Education*, 33(3), 376-403.
- VanFossen, P. J., & McGrew, C. (2008). Is the sky really falling?: An update on the status of social studies in the K-5 curriculum in Indiana. *The International Journal of Social Education*, 23(1), 139-179.
- Wang, J., & Wildman, L. (1995). An empirical examination of the effects of family commitment in education on student achievement in seventh grade science. *Journal of Research in Science Teaching*. 32(8), 833-837.
- Wolters, C.A., & Pintrich, P. R. (1998). Contextual differences in student motivation and self-regulated learning in mathematics, English, and social studies classrooms. *Instructional Science*, 26, 27-47.
- Wood, R. W., Chapel, M. R., Fritsch, R. M., Olawsky, R. G., Perdaems, R. S., Reinke, D. M., Richardson, D. M., & Tone, J. A. (1989). *Status of social studies education in South Dakota elementary schools*. (ERIC Document Reproduction Service No. ED314341)