

## Television News in the Classroom: What Are Adolescents Learning?

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*Having adolescents study current events in school is valued highly by teachers. However, schools often do not stress the instruction of current events. In this study, students were compared across high schools that were designated as exemplary schools in the use of the Channel One television news program and three comparison schools. The results indicated that students who had greater prior knowledge of current events were more likely to report being mastery oriented toward the news; consequently, those students reported engaging in more outside of school news-seeking behaviors and therefore knew more about current events than did other students. In addition, watching television news in supportive environments, grade point average, gender, and socioeconomic status were related to current events knowledge. Implications for the instruction of current events in schools are discussed.*

A fundamental goal of social studies instruction is to help students understand the meaning of world events—both past and present—and to appreciate the role that citizens and governments play in shaping those events. Traditionally, that goal has been addressed through the study of past events; courses variously labeled as history, civics, or government have provided students with perspectives on how society has arrived at the present situation. Although the formal study of contemporary or current events has not been common in American school curricula (Shaver, 1989), millions of adolescents are now being exposed to the topic informally. As of fall 1993, more than 12,000 middle, junior, and senior high schools showed their students *Channel One*—a 10-minute daily newscast. Uncounted additional schools

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showed students *CNN Newsroom*—a 15-minute daily newscast available to an estimated 26,000 schools.<sup>1</sup> A recent study of a large sample of teachers showed strong support for students learning about current events in school (J. Johnston, Brzezinski, & Anderman, 1994).

The study of learning in the domain of current events provides a good opportunity to explore several important issues related to the autonomous learning of adolescents in school contexts. The study of current events lacks the systematic structure of other curricular material, and schools often are ambivalent about how much instruction should be devoted to helping students make sense of the news (J. Johnston et al., 1994). Much more than in regular courses in which students are tested on the material that they learn, the information that students retain about current events depends on individual motives to learn that type of information (Anderman & Johnston, 1997). Because many students today are exposed to television news media in school, teachers and schools do play a role in defining the learning task for students and in shaping their goals (Celano & Neuman, 1995). In the current research, the relations of individual differences and motivation to the learning of current events in schools in which television news is valued were studied.

### **Motivation and School Learning**

Motivation is an important psychological determinant of behavior (Heyman & Dweck, 1996). Studies of the learning of current events have not included modern measures of achievement motivation. Why do some students learn much about current issues while other students are uninterested in the news? Many financial resources currently are being allocated toward the purchase of technology designed to enhance the learning of current events (J. Johnston et al., 1994). Nevertheless, these expenditures may be wasted on students who are not motivated to learn about those issues.

### **Goal Orientation**

The study of goal orientations represents a social-cognitive framework for interpreting motivation (Ames, 1992; Dweck & Leggett, 1988; Maehr & Midgley, 1991; Maehr & Pintrich, 1991; Nicholls, 1989). Goal-orientation theorists posit that students approach tasks with one of two achievement goals. Students who adopt a mastery goal orientation engage in an activity to master the task itself; such students value learning for its own sake and do not see the task as a means to some other end, such as getting a good grade or earning the approval of others.

In contrast, students who adopt a performance goal orientation toward a particular task engage in the task as a means to other ends, such as outperforming peers or getting the highest score on a test. Some researchers (e.g., Young & Urdan, 1993) have argued that performance goal orientations should be broken down into extrinsic goal orientations (e.g., the goal of doing well on a task to get a good grade or to get a reward) and relative ability goal orientations (e.g., the goal of doing well on a task to win approval, demonstrate ability, or outperform others). A number of researchers now conceptualize extrinsic types of goals (e.g., Pintrich & Garcia, 1991) as being qualitatively different than performance goals (e.g., Dweck & Leggett, 1988). Students who adopt performance goals primarily want to demonstrate their ability or appear competent to others. In contrast, students who adopt extrinsic goals engage in a particular academic task to receive some type of extrinsic reward, such as a good grade or candy.

Many studies have shown that the adoption of mastery goals leads to positive educational outcomes, such as the use of deep cognitive processing strategies or critical thinking skills (Nolen, 1988; Pintrich & De Groot, 1990), greater creativity (Archer, 1989), increased motivation (Ames, 1990), and more adaptive patterns of help-seeking behavior (Arbreton, 1993). In contrast, students who adopt performance goals tend to use surface-level strategies such as the rote memorization of facts or immediately asking for assistance from the teacher (Meece, Blumenfeld, & Hoyle, 1988; Nolen, 1988). Students in grades kindergarten through 12 who obtain higher grades often hold mastery goals. However, performance goals seem to be related to better grades for some college students (Pintrich & Garcia, 1991). Performance goals also are related to increased levels of intrinsic motivation for achievement-oriented individuals (Harackiewicz & Elliot, 1993). Although few studies have examined the developmental aspects and effects of gender on achievement goals, longitudinal studies have indicated that males and females become less mastery oriented as they move through early adolescence (Anderman & Midgley, 1997) and that males often are more performance oriented than are females (Anderman & J. Johnston, 1994).

The demands of the task will influence the types of goals that students adopt (Ames & Maehr, 1989; Maehr & Midgley, 1991). For example, if the primary function of a task is to memorize basic facts for a quiz, then students often do not strive for higher levels of comprehension and processing. Although the relation between goals and strategies now is well documented (e.g., Maehr & Pintrich, 1991), few studies have examined the multivariate relations among goals, strategies, and behavioral- and knowledge-based outcomes (Blumenfeld, 1992; Brown, 1988).

### Motivation and Current Events Knowledge

To date, there have been few studies that have applied contemporary theory and research on motivation to the learning of current events in adolescent populations, despite the fact that television news media abound in schools today. Most research on the learning of current events comes from the literature in communication, which has focused almost exclusively on adults. Results from those studies have indicated that among adults, news knowledge is associated with higher levels of education (Robinson & Levy, 1986; Tichenor, Donohue, & Olien, 1970), higher levels of socioeconomic status (Gunter, 1987), and being older and male (Gunter, 1987; Rakow & Kranich, 1991). Studies of the use of *Channel One* in school settings (e.g., Celano & Neuman, 1995; J. Johnston et al., 1994) have indicated that teachers often do not spend time explaining and discussing the information covered in school-based television news programs. Although some studies have indicated that adolescents report enjoying news programs such as *Channel One* (e.g., J. Johnston et al., 1994; Tiene, 1993), those same studies have revealed that students often do not learn much from those broadcasts.

The term *motivation* has meant several things in communications research, and the power of motivation as a predictor has depended on how it has been operationalized. When interest in a particular story was used, motivation was a powerful predictor. In two different studies, interest in one or two specific events was a very strong predictor of learning about those events from subsequent television news viewing over a 1- to 2-week period (Funkhouser & McCombs, 1971; Genova & Greenberg, 1979). However, those studies were designed to assess specific information campaigns and therefore focused on interest in specific news items, not general interest in processing public-affairs types of program content.

Robinson and Davis (1986) measured motivation toward learning from news in general. They assessed whether television news viewers (a) watched news for reassurance, curiosity/ comparison, or to feel informed; (b) paid attention to the newscast; and (c) felt able to understand the news (p. 118). Those researchers examined the role of motivation and used a British sample. They examined predictors of what adults would learn from watching a single evening's news show. The results indicated that the first two predictors were less important than media use factors, such as whether subjects regularly read a newspaper or listened to radio bulletins. However, results of that study revealed that perceived ability to understand a newscast had a noteworthy effect on comprehension of the news. The Robinson and Davis study,

however, did not focus on adolescents, who may have different reasons, goals, and motives for watching the news than have adults (see also Griesinger & Anderman, 1997).

A related issue is that recent studies of current events knowledge have indicated that previous knowledge of the news is a very important predictor of what students will learn from the news (J. Johnston & Brzezinski, 1992; Price & Zaller, 1993). Students who have a greater knowledge of current events at one point in time are likely to learn more about other news events.

The purpose of the present study was to apply current conceptions of motivation to the domain of current events knowledge and to examine the roles that goal orientations played in the acquisition of current events knowledge for adolescents. Goal-orientation theory was used as a theoretical orientation in this study because other studies have demonstrated that goal-orientation theory is applicable particularly in school and classroom settings (Ames & Archer, 1988; Anderman & Maehr, 1994; Maehr & Midgley, 1996). It has been demonstrated that practices in classrooms and schools are well represented by goal-theory constructs (Maehr & Midgley, 1991). Specifically, teachers often construct instructional tasks that focus on either mastering the task (mastery goal), demonstrating ability at the task (performance goal-relative ability), or earning some type of extrinsic reward for engaging in the task (performance goal-extrinsic). In addition, unlike some other motivational theories, a major focus of goal-orientation theory is on how individuals think—how they think about their school work, their abilities, and themselves (Ames & Archer, 1988; Anderman & Midgley, 1997; Dweck & Leggett, 1988). Thus, goal-orientation theory was selected as the motivational framework for the present study because it focuses on cognitive aspects of motivation and because it is a particularly useful framework for examining the relations between instructional practices and student learning.

If educators wish to foster in adolescents the autonomous seeking of knowledge about public affairs, or continuing motivation to learn about news events (e.g., Maehr, 1976), then research needs to use and build on recent developments in motivational theory and research. Thus, the present study explored the following questions:

- Do adolescents who watch television news programs in supportive environments learn more about the news than do adolescents who do not watch television news?
- Do motivational variables influence the acquisition of current events knowledge?
- Do motivational and instructional variables predict students' news-seeking behaviors outside of school?

Specifically, it was hypothesized that measures that reflect goal-orientation theory would be strong predictors of current events knowledge, but the relation would vary according to several features. It was hypothesized that achievement goal orientations would have direct effects on whether or not adolescents would seek news at home. It also was hypothesized that achievement goals would have indirect effects on current events knowledge through news-seeking behaviors. If a student adopted a mastery goal orientation toward the news, the student would likely feel that knowing about the news is meaningful, and consequently, the student would be more likely to seek the news at home. Indeed, other studies have indicated that when students adopt a mastery goal orientation, they use more complex cognitive processing strategies (e.g., Nolen, 1988). It is the use of those strategies that ultimately may lead to greater learning (Pintrich & Schunk, 1996). It also was hypothesized that adolescents who watched a daily television news program in a school that valued the instruction of current events would know more about such events than would students in schools without a daily television news program. Some previous studies have indicated that the context for learning about current events is related to what students actually do or do not learn from news broadcasts (Celano & Neuman, 1995; J. Johnston & Anderman, 1993).

## METHOD

### Participants

The participating schools are described in Table 1, along with breakdowns by gender and grade level. The sample included 582 students from the six matched viewing/nonviewing high schools. Because the data reported in the present study were longitudinal, data were used only for students with complete data. Each school provided approximately six to eight classes of average-achieving students, two at each grade level (9 through 12) whenever possible. Of the entire student sample, 49% were male. Of the sample, 84% were Caucasian and the others were members of minority groups (8% Latino American, 1% African American, 6% Native American, and 2% Asian American). Of the students, 21% were in the 9th grade, 33% in the 10th grade, 30% in the 11th grade, and 17% in the 12th grade. Of the sample, 33% reported having a mother who had graduated from college, and 42% reported having a father who graduated from college.

**TABLE 1: Descriptions of Viewing and Nonviewing Sites and Geographic Locations**

Pair Type	View	Grade				Gender		Total	Description
		9th	10th	11th	12th	Male	Female		
Rural	View	30	23	26	29	44	64	108	Rural locations in Kansas and New Mexico. Population less than 10,000. Adults employed in agriculture, chemicals, and natural gas. Schools have less than 500 students; one-third to one-half are Hispanic and the remainder are Caucasian. More than one-half go on to postsecondary education.
	No view	22	21	8	6	26	31	57	
Small town	View	1	46	35	1	40	42	83	Locations in Montana and South Dakota. Population less than 50,000. Adults employed in government and service work. Schools have between 500 and 1,000 students. Almost all are Caucasian. About two-thirds of students go on to postsecondary education.
	No view	—	31	33	3	36	31	67	
Urban advantaged	View	33	36	35	30	63	70	134	Large city advantaged locations in Missouri. Middle to upper socioeconomic status community. Adults employed mostly in white-collar work for major national industries. Schools have about 2,000 students; 94% are Caucasian. About three-quarters of students go on to postsecondary education.
	No view	37	34	35	27	73	60	133	
Total	View	64	105	96	60	147	176	325	
	No view	59	86	76	36	135	122	257	

NOTE: Numbers represent *rs.*

### **Selection of Participating Schools**

Previous studies have indicated that the presence of a daily television news program in high schools adds little to student knowledge of and appreciation for the news if the faculty and students do not value the news (J. Johnston & Anderman, 1993; J. Johnston & Brzezinski, 1992). In addition, it is important to note that there are now a number of television news programs available in schools. For the present study, therefore, three schools were chosen that only showed *Channel One* and in which the students and teachers placed a high value on the news. In the present research, these schools are referred to as *exemplary schools*. Furthermore, three comparison schools were selected that had no television news program but did have similar demographic characteristics to the viewing schools. In the present study, the attempt was not made to unconfound the possible effects of viewing *Channel One* in supportive as compared to unsupportive environments; rather, in the current study, we merely wanted to examine the unique effects on motivation and knowledge when viewing news in supportive environments.

Schools that showed *Channel One* were chosen because the program is watched in many public and private high schools in the United States and because more than 99% of the schools that first adopted *Channel One* in 1990 renewed their contracts in 1993; hence, *Channel One* is clearly a growing presence in schools (DeVaney, 1994; J. Johnston et al., 1994). To avoid possible confounding effects of viewing other news programs, comparison schools were selected that did not show other news programs, such as *CNN Newsroom*.

### **The Problem of Measuring Environment/Context**

Although researchers increasingly are becoming aware of the need to examine and measure the effects of social contexts on individuals, there is still a great deal of debate concerning how to appropriately measure environment or context (Eccles, 1995). For the present study, consultations were made with a number of researchers in the fields of psychology and communications who have been involved actively in the complex issue of measuring context. Specifically, the goal was to identify schools in which (a) a television news program (e.g., *Channel One*) was shown daily and (b) the teachers supported and believed in the importance of teaching current events to adolescents.

After consulting with a number of individuals, a strategy was developed for finding the three viewing schools for the study. To identify schools in which *Channel One* was viewed in supportive environments, *Channel One*



field service personnel were asked to nominate schools that they thought met the following criteria: (a) students and teachers both placed a high value on learning current events, (b) teachers in the viewing classroom attended to the news broadcasts and expected students to do the same, (c) teachers in the school discussed important news stories with their classes, and (d) the curriculum was flexible enough to permit occasional departures from the day's activities to permit the discussion of an important news story. Using those criteria, the *Channel One* personnel provided a list of 23 schools.

To obtain a smaller sample of students, the principals of these 23 schools were contacted and permission was requested to send short surveys to the teachers. All principals agreed. Teachers mailed the surveys back in postage-paid envelopes. The instrument itself was highly reliable (Cronbach's  $\alpha = .92$ ; see J. Johnston et al., 1994, for a full description of this instrument).

The data from each of the 23 schools were averaged and the schools were then rank ordered. Schools with lower than a 40% response rate were eliminated ( $n = 13$ ). Responses to the items in the questionnaire were added together. The summation of responses for the final 10 schools ranged from a low of 71.35 to a high of 94.24. Of those remaining 10 schools with 40% or higher response rates, 6 of the schools were eliminated because they were middle schools. The final set of 3 high schools was selected from among the remaining 4 schools to represent different community types (rural, small town, and urban advantaged), using the same selection strategy as the National Assessment of Educational Progress (NAEP; 1990). The NAEP is a nationally representative and continuing assessment of what students in the United States know and can do in various subject areas. Congressionally mandated, there have been NAEP assessments covering reading, mathematics, science, writing, history/geography, and civics.

For each *Channel One* viewing school, a matching nonviewing school was identified in which the broad demographic characteristics of the student body (ethnicity, type of parental occupation, geographic location, and percentage pursuing postsecondary education) were as similar as possible. Those are the dimensions used by the NAEP for school selection for the NAEP assessments (NAEP, 1990).

## Procedure

The first current events knowledge test was administered in February 1993 to students in the six schools selected to participate in the study. The same students completed another current events knowledge test and the motivation and self-reported news-seeking behavior questionnaires 3 months later. In the

*Channel One* schools, students viewed newscasts virtually every day of the school year from September 1992 through May 1993. Students in the control schools did not have access to television news in school. The original set of core demographic items (including parent education) were cleared with a human subjects review panel. Following the Family Rights and Privacy Act, which excludes district curriculum experiments from informed consent requirements, each school district was provided with the protocols and asked to approve each questionnaire. In turn, principals and teachers were given the option to not administer a questionnaire or parts of it; however, no one refused. Survey administrators were given the instruction to tell students that they had the option of not completing the test.

## **Instruments**

### **Current Events Knowledge**

Students completed one current events knowledge test in February 1993 and another in May 1993. Although the May data were used as the dependent variable in this study, data also were collected in February because other studies have shown that previous knowledge of the news is the most important predictor of current events knowledge (e.g. J. Johnston & Brzezinski, 1992; Price & Zaller, 1993). Students were presented with a series of statements about events in the news and were asked to indicate whether the statement was true or false. To develop a valid test of current events knowledge, all items were based on extensive content analyses of the news media for the 6 months preceding each test period (J. Johnston et al., 1994).

For each topic tested (e.g., the war in Bosnia-Herzegovina, relief efforts in Somalia, United States politics, etc.), several statements were used to assess understanding of each individual topic. For example, in the May 1993 test, four distinct items were used to assess adolescents' knowledge about Boris Yeltsin. Total current events knowledge at each testing was defined as the sum of correct responses on the test.<sup>2</sup> The instrument showed acceptable reliability ( $\alpha = .76$ ). A key to the fairness of the *Channel One* tests is that they only included those news items covered by *Channel One* and competing sources of news, such as television networks and national print publications such as *Time* and *U.S. News & World Report*. In addition, current events knowledge tests produced by *U.S. News & World Report* (Close Up Publishing, 1993) were used in the first round of *Channel One* test construction to confirm that the topics selected by the test-development team, based on the

*Channel One* content analysis, were all in the pool of topics considered by a national news organization to be the major topics on the world news agenda.

To ensure content validity, four people followed the news as reported on the networks and in the major national newspapers (e.g., *The New York Times*) and then reviewed the content analyses of *Channel One* and selected for the tests only stories that (a) were frequently covered on *Channel One* and (b) received comparable coverage by the major national media. Additionally, scores on the current events instrument correlated in expected ways with other measures. For example, scores on the two knowledge tests, which contained differing items, were correlated positively ( $r = .35, p < .001$ ).

### **Self-Reported News-Seeking Behavior**

Students also responded to a series of questions that asked how many news stories they had viewed on television, heard on radio, or read in newspapers or weekly news magazines. Students used a 4-point Likert-type scale (1 = *no stories*, 2 = *one story*, 3 = *two or three stories*, and 4 = *four or more stories*) to indicate how many stories they had heard, seen, or read about on these topics during the past few months. The students were asked to use this scale for each of eight topics: the fighting in Bosnia-Herzegovina; changes in Russia; the famine and relief efforts in Somalia; the Rodney King trial in Los Angeles; the president's troubles finding an attorney general; the Branch-Davidian standoff in Waco, Texas; the World Trade Center bombing; and the role of gays in the military. The self-reported news-seeking behavior measure was reliable ( $\alpha = .84$ ).

### **Motivation**

Students responded to a series of statements on a 5-point Likert-type scale that ranged from 1 = *not true of me* through 5 = *very true of me*. These statements represent original items and items similar to ones used on the Patterns of Adaptive Learning Survey (PALS) (Midgley et al., 1996). Factor analysis was used, and loadings were computed using a varimax rotation. A priori factors determined by Midgley and colleagues (1996) guided final construction of scales. Specifically, the results of factor analyses, with the items reworded to measure motivation toward the news, were compared with the factors that Midgley and colleagues found for general learning and for learning in mathematics and English. Although the items in the current study were reworded to fit the domain of news knowledge, the items factored into the same patterns as found by Midgley and colleagues. All scales used in the

**TABLE 2: Scales and Reliabilities for Motivation and News Seeking**

<i>Scale</i>	$\alpha$
Mastery orientation	.77
Understanding the news—what's happening in the world—is important to me.	
I pay attention to what is happening on the news because I enjoy it.	
It's fun to figure out why things like wars and elections are happening around the world.	
Listening to the news is boring (reversed scored).	
Performance orientation—extrinsic	.77
I read about or watch the news only when a teacher requires it.	
I read about or watch the news only if I am going to be tested on it.	
I read about or watch the news because I have to, not because I want to.	
Performance orientation—relative ability	.70
Knowing more than other students about what's going on in the world is important to me.	
I like to show that I know more about national and world news than other students.	
I feel good if I am the only one who understands a news story.	
News-seeking behavior—number of stories read or viewed outside of school on:	.84
Bosnia-Herzegovina	
Russia	
Somalia	
The Rodney King trial	
Clinton's search for an attorney general	
Waco, Texas	
World Trade Center bombing	
Gays in the military	

NOTE: Except for news-seeking behavior, all items were responded to using the scale 1 = *not at all true of me* through 5 = *very true of me*.

present study displayed good psychometric properties. Items and alphas for the motivation and news-seeking measures are presented in Table 2.

### Demographics

Students also responded to a series of demographic questions, including grade level in school, level of parental education (1 = *completed some high school*, 2 = *graduated from high school*, 3 = *completed some college*, 4 = *graduated from college*, 5 = *don't know*) and grade point average (GPA) (5 = *A or A-*, 4 = *B+ or B*, 3 = *B- or C+*, 2 = *C or C-*, 1 = *D+ or below*). Self-reported GPA has been used as a reliable and valid measure in several other large-scale studies (e.g., J. Johnston et al., 1994; Wilson, 1985). In addition, Schiel and Noble (1991) found that the self-reported grades of high school

sophomores varied somewhat across schools, but in general, self-reports were reliable enough to be used in educational studies. As a proxy for socioeconomic status, the educational levels of both parents were averaged. If there was information for only one parent, that information was used alone.<sup>3</sup>

## RESULTS

### Descriptive Statistics

Table 3 presents bivariate correlations among several demographic, achievement, and motivational variables. Inspection of the table reveals several interesting relations. Current events knowledge in February and May were correlated moderately ( $r = .35, p < .001$ ). In addition, knowledge of current events was related positively to a mastery goal orientation and self-reported news-seeking behavior at both test times. Current events knowledge was related negatively to extrinsic goals at both test times. Positive correlations were found for test scores at both times with GPA and parental education.

Various researchers have suggested that a mastery goal orientation leads to more adaptive and successful learning than does a performance goal orientation (e.g., Ames, 1990; Anderman & Maehr, 1994; Dweck & Leggett, 1988; Maehr & Midgley, 1991). However, in many previous studies, the operationalization of performance goals has confounded items that assess extrinsic reasons for doing work (e.g., "I watch the news because I get tested on it") as compared to items that assess relative ability (e.g., "I like to show that I know more than other students about news stories"). Holding a mastery goal orientation toward learning the news was related negatively to extrinsic goals ( $r = -.42, p < .001$ ) but was related positively to relative ability goals ( $r = .41, p < .001$ ). In addition, students who reported being mastery oriented toward the news reported higher levels of self-reported news-seeking behavior outside of school ( $r = .47, p < .001$ ). They also obtained higher scores on the current events knowledge tests in February ( $r = .24, p < .001$ ) and in May ( $r = .23, p < .001$ ).

### Current Events Knowledge

Table 4 shows differences in test scores between viewing and nonviewing schools for each pair and for the total combined high school sample. The average score for all high school students was 70% correct (13.76 out of 18 possible). Students in the three high schools in which *Channel One* was

**TABLE 3: Zero Order Correlations for Indexes of Knowledge, Motivation, and Demographics**

	1	2	3	4	5	6	7	8	9	10	11
1. Knowledge (May)											
2. Knowledge (February)	.35***										
3. Grade level (9-12)	.10*	.20***									
4. Relative ability	.07	.12**	.02								
5. Mastery goals	.23***	.24***	.13**	.41***							
6. Extrinsic goals	-.16***	-.13**	-.00	.02	-.42***						
7. News-seeking behavior	.35***	.36***	.11**	.18***	.47***	-.26***					
8. Grade point average	.21***	.25***	.13**	-.01	.14***	-.08*	.14***				
9. Gender	-.06	-.18***	.01	-.17***	-.06	-.05	-.15***	.21***			
10. Parental education	.22***	.16***	.09*	.04	.13**	-.02	.20***	.21***	.02		
11. View Channel One	.21***	.17***	.06	.08	.10*	.02	.18***	-.00	.07	.03	

NOTE: Gender was coded 0 = male, 1 = female. View Channel One was coded 0 = no, 1 = yes.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

**TABLE 4: Effect Sizes and Differences in Scores Between Viewing and Nonviewing Schools**

	Rural Pair		Small Town Pair		Urban Advantaged Pair		Combined Scores	
	February	May	February	May	February	May	February	May
Pair mean	68.14%	65.35%	73.86%	72.15%	71.24%	65.80%	71.02%	67.77%
View/no view difference	7.33%	10.65%	4.10%	6.60%	3.00%	5.00%	4.81%	5.56%
Difference in standard deviation units (effect size)	0.60	0.66	0.37	0.43	0.25	0.33	0.41	0.47

NOTE: All view/no view scores (pairs and pooled scores) are significantly different,  $p < .001$ .

viewed scored approximately 5% higher than students in the nonviewing schools. The average effect size was .44 standard deviation.

A multiple classification analysis (MCA) was run to examine the relation between viewing a television news program in a supportive environment and current events knowledge when prior knowledge is covaried. MCA is a multiple regression analysis strategy that allows for categorical predictors (Andrews, Morgan, Sonquist, & Klem, 1973). The advantage of MCA is that it estimates the independent effects of each independent variable, controlling for the effects of other variables in the equation. Thus, in Table 5, the main effects reported for viewing television news in school have been adjusted for effects of GPA, gender, grade level, and parental education. Differences between viewing and nonviewing schools are determined from deviation scores from the grand mean of 13.76.

In particular, students from families with lower mean educational levels tended, on average, to know less about current events, and students who were viewers of *Channel One* or who earned high overall grades in school tended to know more about current events. The only significant main effects were for viewing *Channel One* in supportive environments,  $F(1, 469) = 21.19, p < .001$ ; GPA,  $F(3, 469) = 2.90, p < .05$ ; and parental education,  $F(2, 469) = 9.02, p < .001$ . Interactions were not significant.

### **The Role of Goals**

As noted earlier, research in other content domains has indicated that students' goal orientations are related to a number of variables, such as achievement and gender. Do achievement goals have direct effects on current events knowledge after controlling for prior knowledge, demographic characteristics, and GPA? Path analysis was used to look at these relations (Asher, 1983). The measure of relative ability goals was excluded from those analyses because the bivariate correlation reported in Table 3 between relative ability goals and May current events knowledge was not significant. The exogenous variables (GPA, prior knowledge of the news, viewing television news in a supportive environment, gender, and parental education) were measured in February 1993 (Time 1) and therefore were entered first into the analyses. The motivation, news-seeking, and final knowledge questions were administered in May 1993 and were used as dependent variables in the analyses. The February 1993 current events test results were included specifically because studies have indicated that previous knowledge of the news is a very strong predictor of current news knowledge (Price & Zaller, 1993). Results are presented in Figure 1.



**TABLE 5: Multiple Classification Analysis of Current Events Knowledge, Covarying Prior Knowledge**

Predictor	Deviation From Grand Mean	$\beta$
View <i>Channel One</i>		.19***
View	.53	
No view	-.64	
Grade point average		.13*
A or A-	.52	
B+ or B	.23	
B- or C+	-.42	
C or below	-.45	
Gender		.07
Male	.23	
Female	-.21	
Grade		.09
9th	-.37	
10th	.25	
11th	.15	
12th	-.25	
Parental education		.18***
Low	-1.79	
Medium	.06	
High	.22	
February knowledge (covariate)		.23***
Multiple $R^2$		.22***

NOTE: The beta value for the covariate is actually the raw regression coefficient; the grand mean = 13.76.

\* $p < .05$ . \*\*\* $p < .001$ .

Due to the large sample size, only beta values significant at  $p < .01$  or lower were reported. Self-reported news-seeking behavior outside of school, parental education, prior knowledge, extrinsic goals, and viewing *Channel One* in supportive environments all had direct effects on knowledge. In particular, students from families with higher mean levels of parental education, students who sought news outside of school, students who already had some knowledge about the news, students with high GPAs, and students who viewed television news in supportive environments knew more about current events. The only achievement goal that had a direct effect on knowledge was holding extrinsic goals. Students who were oriented extrinsically toward the news (e.g., only wanting to learn about the news if they were going to be tested on it) knew less about current events once the other variables had been controlled. Mastery goals had indirect effects on knowledge through self-reported news-seeking behavior. Once other variables had been controlled,

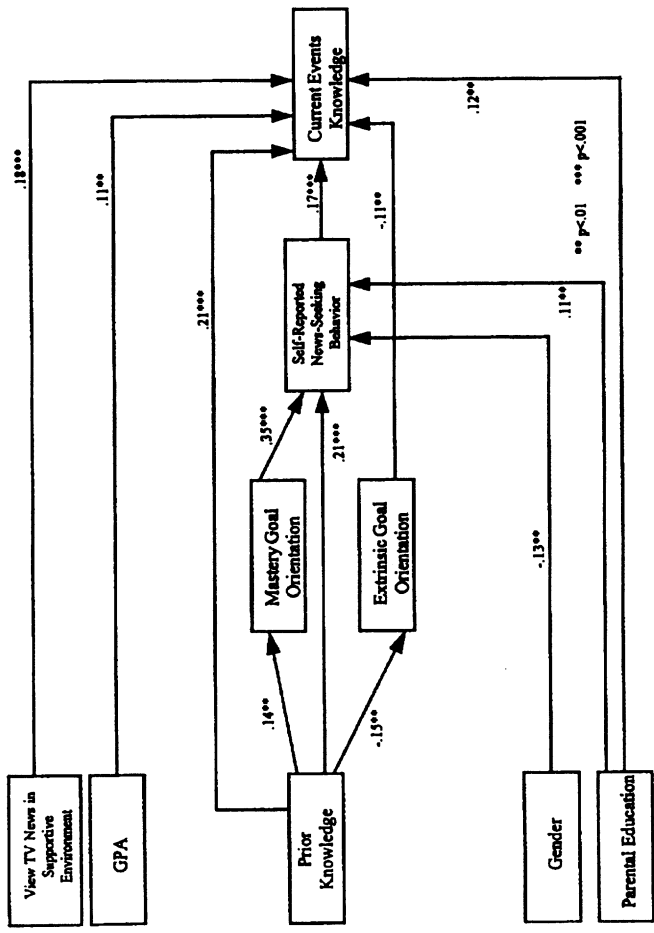


Figure 1. Path analysis predicting current events knowledge.

NOTE: GPA = Grade point average.

\*\* $p < .01$ . \*\*\* $p < .001$ .

students who held mastery goals, students who had greater prior knowledge, students whose parents had higher educational levels, and males tended to seek news more often outside of school than did other students. The final model explained 25% of the variance in current events knowledge ( $r^2 = .25$ ,  $p < .001$ ).

## DISCUSSION

The present study indicated that adolescents' knowledge of current events was shaped by an array of motivational, cognitive, and behavioral variables. As found in studies of adult current events knowledge, previous knowledge of news events was a powerful predictor of current news knowledge (Price & Zaller, 1993). Yet in the present study, the second strongest predictor of knowledge was the direct effect between viewing news on a daily basis in a supportive environment and knowledge.

GPA and parental education also had direct effects on knowledge, with higher achieving students and students from homes with higher mean levels of parental education receiving better scores on the May current events test. Gender had an indirect effect on knowledge through news seeking—males reported more outside-of-school news-seeking behaviors than did females.

### Motivation and Current Events

Maehr (1976) has suggested that one of the most neglected outcomes in educational and psychological research is continuing motivation—the desire for students to continue to engage in the autonomous seeking of knowledge. Although many innovations and research efforts are judged ultimately by an improvement in students' knowledge, researchers also must be concerned with changes in students' behaviors that may lead to additional learning.

The present study included measures of student knowledge of recent current events and a composite measure of students' self-reported outside-of-school news-seeking behaviors as outcomes. The results indicated that students who were more mastery oriented toward learning about current events tended to seek more news outside of school from television and radio news, magazines, and newspapers. Students who had high knowledge of current events in February were more likely to report being mastery oriented toward the news in May. In addition, students who knew more in February were less likely to be oriented extrinsically toward the news in May.

The use of goal-orientation theory (Ames & Archer, 1988; Dweck & Leggett, 1988; Maehr & Pintrich, 1991; Nicholls, 1989) to operationalize

motivation in the present study represented a first attempt to understand the affective components of watching and learning about current events in school using developmentally appropriate psychological measures of achievement motivation with a sample of adolescents. Previous research has demonstrated that achievement goal orientations (e.g., mastery and performance goals) are particularly important during adolescence (see Anderman & Maehr, 1994, for a review). Studies of learning from the news have used measures of motivation that represent particular aspects of motivation (e.g., curiosity), but none to date has incorporated psychometrically appropriate and theoretically driven motivational measures. Results of the present study indicated that adolescents who reported holding mastery goals toward the news did learn more about the news and engaged in news-seeking behaviors outside of school. In contrast, students who reported holding extrinsic goals toward the news appeared to know less about current events.

Most of the hypotheses, regarding the direct and indirect effects of achievement goals on knowledge and self-reported news-seeking behavior, were confirmed. As predicted, a mastery goal orientation had an indirect effect on current events knowledge through news-seeking behavior once GPA and prior knowledge had been controlled. Interestingly, there was no indirect effect of extrinsic goals on knowledge through news-seeking behavior—there was only a direct effect. Thus, students who reported being oriented extrinsically toward the news appeared to know less about current events, regardless of their at-home news-consumption behaviors. As predicted, there was no direct effect of mastery goal orientation on knowledge.

One particularly important finding from the present research was the direct effect of mastery goals on self-reported news-seeking behavior at home. Whereas a number of studies have documented relations between goal orientation and cognitive strategy use (Ames & Archer, 1988; Nolen, 1988; Nolen & Haladyna, 1990; Pintrich & De Groot, 1990; Pintrich & Schrauben, 1992), few studies have linked subject-specific achievement goals to specific outside-of-school behaviors of adolescents. The indirect effect of mastery goals on current events knowledge (through self-reported news-seeking behavior) adds to the growing body of evidence that indicates that perceptions of a mastery goal orientation are related to behaviors that are conducive to deep, meaningful learning (Pintrich & De Groot, 1990). Results of the present study indicated that when television news was viewed in a supportive environment in high schools, students were more likely to report being mastery oriented toward the news and consequently were more likely to seek news outside of school and to know more than other students about recent news events. This was a particularly important finding because adolescents may gain their knowledge about important social issues such as gang vio-

lence, drug and alcohol abuse, and AIDS from the news; consequently, students who are motivated to watch or read the news at home may acquire important information about those issues that other adolescents do not gain.

Another important finding was the direct negative effect of extrinsic goals on current events knowledge. Although some debate exists about exactly how extrinsic incentives affect motivation and learning (Cameron & Pierce, 1994; Eisenberger & Cameron, 1996), there is a general consensus among motivational researchers that extrinsic practices have a negative influence on intrinsic motivation, learning, and achievement (Kohn, 1986; Lepper, Greene, & Nisbett, 1973; Lepper, Keavney, & Drake, 1996; Ryan & Deci, 1996). Results of the present study support that notion. When students perceive that they must learn about current events for extrinsic reasons (e.g., because it is required or because they will be tested on the material), in the long term, they actually tend to recall less news.

The findings regarding mastery and extrinsic goal orientations are important because a number of researchers have demonstrated that achievement goal stresses can be manipulated by changing classroom and school policies and practices (Ames, 1990; Anderman, 1997; Anderman & Urdan, 1995; Maehr & Midgley, 1991). Thus, teachers and schools may be able to nurture in their students the development of a mastery orientation toward the news, and this might lead to higher levels of outside-of-school news-seeking behaviors among adolescents. Few schools today formally incorporate current events instruction into curricula for adolescents (Shaver, 1989); perhaps new curricula and materials that emphasize the importance and relevance of current events and incorporate the available television technology into that curricula could have an impact on the motivation and news-consumption behaviors of adolescents.

### **Judging the Size of the Effects**

The effect size metric is useful particularly in studies of educational innovations such as television news in schools because it allows for comparisons of results across various studies. An effect size is a standard score that allows for comparisons between experimental and control groups (Krathwohl, 1993). For example, across a large number of studies in which television was used as the source of instruction, the average effect size was only .15 standard deviation (Cohen, Ebeling, & Kulik, 1981). Cohen and colleagues concluded that an effect size that small was not meaningful statistically and should be interpreted as indicating that video-based instruction yields equivalent results to instruction that does not use video. Across various studies of innovative science curricula, the overall mean effect size was 0.31

standard deviation, which was described by Weinstein and colleagues as a moderate effect (Weinstein, Boulanger, & Walberg, 1982). In comparisons of modern and traditional mathematics curricula, Athappilly and colleagues reported an average effect size of .24 standard deviation, which they interpreted as beneficial (Athappilly, Smidchens, & Kofel, 1983).

In the present study, when comparing the scores of adolescents who viewed news in supportive environments to the scores of nonviewers, the effect size was .44 standard deviation, which could be judged as a moderate effect and certainly in the range of impact that is associated with other innovative curricula. Nevertheless, several qualifications must be made. First, in the present study, students' specific knowledge of recent current events was assessed. In many meta-analyses (e.g., Shymansky, Kyle, & Alport, 1983), results were reported for general knowledge in a given domain. Second, in the present research used for the sample, viewing schools included only those that were identified as schools that had shown a commitment to using and incorporating television news into many aspects of the school day and curriculum. Therefore, results reported in the present study (and the effect size of .44 standard deviation) were representative of what happened in supportive environments in which *Channel One* was shown.

The average score on the current events test in the present study for viewing and nonviewing students was 70% correct. In three studies of short-term learning from *Channel One*, J. Johnston and colleagues (1994) found that students obtained scores of 60%, 58%, and 61% correct, respectively. In earlier studies, J. Johnston and Brzezinski (1992) found that students could answer 64% of current events questions correctly in September, 62% in January, and 51% in May of the same school year. Although the students in the present sample could answer 70% of the questions correctly, this is not surprising given that the *Channel One* schools in the present sample specifically were selected to represent schools that used the *Channel One* broadcasts in exceptional ways. The questions used in the present study were constructed by the same research teams and piloted in the same manner as the questions used in previous studies (J. Johnston & Brzezinski, 1992; J. Johnston et al., 1994); consequently, there is little reason to suspect that the questions were of a different level of difficulty or reading ability.

### **The Role of Formal Instruction and Television News Broadcasts**

Although little is known from this study about the ways in which current events were typically taught—for example, the nature of the tasks students were given in those classes or how they were evaluated—it was clear that the mix of activities that comprised typical instruction in this arena had positive

outcomes. Given that 40% or more of all in-school adolescents are exposed to *Channel One* on a daily basis, whereas additional students are exposed to productions and publications by CNN, Scholastic, and other sources (Toch, 1992), it would be important to disentangle the effects of mere viewing from various types of direct instruction. One of the major claims of the present study was that viewing television news in supportive environments led to greater news-seeking behaviors and higher levels of knowledge. Although an attempt was made to carefully identify schools in which *Channel One* was valued and integrated into instruction, it is extremely difficult to characterize and compare such contexts across schools in a large-scale quantitative study. One previous qualitative study of high school students' viewing of *Channel One* (J. Johnston & Anderman, 1993) indicated that supportive environments for viewing television news were ones in which the news was viewed during a regular class period (as opposed to during a homeroom period), the teachers took the time to discuss important stories that were shown on the news, and there was a consistent valuing of the news program among the faculty.

Results of this study have several implications for teachers and parents. First, results of the present study and other studies (e.g., Celano & Neuman, 1995) indicate that the context in which news programs are viewed and discussed has an important ramification on how much students learn from news broadcasts. When current events programs such as *Channel One* are treated as superfluous and unimportant, then students are not likely to deeply process the information presented in those programs. Second, results of this study revealed that motivational variables play an important role in the acquisition of current events knowledge. A number of motivational researchers who use a goal-orientation framework have found that the types of practices that teachers use in classrooms can have an effect on student motivation and achievement (e.g., Ames & Archer, 1988; Anderman & Young, 1994). The results of the present study indicated that instructional practices that encourage students to master the news may lead to more news-seeking behaviors outside of school and consequently greater current events knowledge. The use of extrinsic practices, such as memorizing news events for pop quizzes, appears to impair adolescents' current events knowledge. Indeed, other motivational research has documented that a mastery goal orientation is related to deeper levels of cognitive processing, whereas environments that foster grades, competition, and performance often lead to surface-level cognitive processing strategies such as rote memorization (Nolen, 1988; Pintrich & De Groot, 1990).

Studies in the future need to examine comparisons between viewing television news in supportive and unsupportive environments and not viewing television news at all. In addition, studies also need to assess the effects

of attending a school that supports the learning of current events but does not show television news programs, as well as the effects of other news sources, and of particular instructional practices, on motivation, knowledge, and behavior. Given the abundance of schools that expose their students to news media, there is a great need for studies of specific teachers' and schools' practices and policies regarding current events instruction. In addition, longitudinal studies of changes in adolescents' attitudes and goal orientations over time may provide more information on the long-term effects of viewing television news in school. Much research in the future is needed on the roles of attitudes and the influences of peers on the acquisition of current events knowledge. Studies also would benefit from the use of additional measures of socioeconomic status. Finally, studies in the future should examine the multiple levels of influence in the arena of current events learning. For example, the use of multilevel regression techniques may help disentangle the effects of individual differences, classroom practices, and school practices on the learning of current events. In addition, the triangulation of information provided by students, teachers, and parents might lead to an improved understanding of how this type of knowledge is acquired.

The final path model accounted for 25% of the variance in current events knowledge. Consequently, other variables not measured in the present study might explain additional variance. Indeed, it is possible that viewing television news in a supportive environment encourages other behaviors that are conducive to learning about current events. Ethnographic studies reveal that although educators often do not spend time discussing news stories with adolescents (Celano & Neuman, 1995), such discussions create an environment in which students and teachers value current events knowledge (J. Johnston & Anderman, 1993). Consequently, studies that more specifically examine the nature of discussions occurring around current events might explain additional variance in current events knowledge acquisition. In addition, the inclusion of other motivational variables, such as perceptions of competence (Harter, 1982), attributions (Weiner, 1986), and achievement values (Wigfield & Eccles, 1992), might explain additional variance in subsequent studies.

Television news in the classroom is a part of the daily lives of millions of adolescents. With accessibility to the Internet becoming more common to adolescents, other electronic sources of information may gain prominence in the classroom as well. The present study identified variables that may allow educators and parents to help adolescents process and retain the important knowledge available from these new sources of information.



## NOTES

1. The in-school audience watching *Channel One* is estimated to be around 7 million. Although the cable industry claims that *CNN Newsroom* is available to 26,000 schools, there are no estimates of how many of those schools actually show the program to students on a regular basis.

2. A full description of items comprising each test is available from the first author.

3. This is the same as the parental education index measured in the Bachman et al. Monitoring the Future study (see L. Johnston, O'Malley & Bachman, 1992), which has been conducted annually for the past 20 years. This measure is common in a large number of studies of youth for which the youth provide the data for just these two measures (father's and mother's education). The other ingredients commonly added to measures of socioeconomic status include father's and mother's occupation and/or income. Studies in the 1970s established that youth are not familiar with these figures and cannot provide valid estimates (J. Bachman, personal communication, December 8, 1995). The one other ingredient sometimes used is number of books in the home (or a variant of this). This measure was not used in the present study. Because the measure used in the present study did not include information about parental occupation, income, or number of books in the home, this variable will be referred to as *parental education*.

## REFERENCES

- Ames, C. (1990, April). *The relationship of achievement goals to student motivation in classroom settings*. Paper presented at the annual meeting of the American Educational Research Association, Boston.
- Ames, C. (1992). Classrooms: Goals, structures, and student motivation. *Journal of Educational Psychology, 84*, 261-271.
- Ames, C. & Archer, J. (1988). Achievement goals in the classroom: Students' learning strategies and motivation processes. *Journal of Educational Psychology, 80*, 260-270.
- Ames, C., & Maehr, M. L. (1989). *Home and school cooperation in social and motivational development*. Washington, DC: U.S. Department of Education, Grant from the Office of Special Education Research.
- Anderman, E. M. (1997). Motivation and school reform. In M. L. Maehr & P. R. Fintrich (Eds.), *Advances in motivation and achievement* (Vol. 10, pp. 303-337). Greenwich, CT: JAI Press.
- Anderman, E. M., & Johnston, J. (1994, February). *Motivational influences on adolescents' current events knowledge*. Paper presented at the biannual meeting of the Society for Research on Adolescence, San Diego, CA.
- Anderman, E. M., & Johnston, J. (1997). *Channel One: Television news in the middle school classroom*. *Middle School Journal, 28*, 33-36.
- Anderman, E. M., & Maehr, M. L. (1994). Motivation and schooling in the middle grades. *Review of Educational Research, 64*, 287-309.
- Anderman, E. M., & Midgley, C. (1997). Changes in achievement goal orientations, perceived academic competence, and grades across the transition to middle level schools. *Contemporary Educational Psychology, 22*, 269-298.
- Anderman, E. M., & Urdan, T. C. (1995). A multi-level approach to middle-level reform. *Principal, 74*(3), 26-28.

- Anderman, E. M., & Young, A. J. (1994). Motivation and strategy use in science: Individual differences and classroom effects. *Journal of Research in Science Teaching*, 31(8), 811-831.
- Andrews, F., Morgan, J., Sonquist, J., & Klem, L. (1973). *Multiple classification analysis* (2nd ed.) Ann Arbor: University of Michigan.
- Arbreton, A. (1993). *When getting help is helpful: Developmental, cognitive, and motivational influences on students' academic help-seeking*. Unpublished doctoral dissertation, University of Michigan.
- Archer, J. (1989). *Motivation and creativity: The relationship between achievement goals and creativity in writing short stories and poems*. Unpublished doctoral dissertation, University of Illinois at Urbana-Champaign.
- Asher, H. B. (1983). *Causal modeling*. Beverly Hills, CA: Sage.
- Athappilly, K., Smidchens, U., & Kofel, J. W. (1983). A computer-based meta-analysis of the effect of modern mathematics in comparison with traditional mathematics. *Educational Evaluation and Policy Analysis*, 5, 485-493.
- Blumenfeld, P. C. (1992). Classroom learning and motivation: Clarifying and expanding goal theory. *Journal of Educational Psychology*, 84, 272-281.
- Brown, A. L. (1988). Motivation to learn and understand: On taking charge of one's own learning. *Cognition and Instruction*, 5, 311-321.
- Cameron, J., & Pierce, W. D. (1994). Reinforcement, reward, and intrinsic motivation: A meta-analysis. *Review of Educational Research*, 64, 363-423.
- Celano, D., & Neuman, S. B. (1995). *Channel One: Time for a TV break*. *Phi Delta Kappan*, 76, 444-446.
- Close Up Publishing. (1993). *Current events quizzes for subscribers to U.S. News & World Report*. Alexandria, VA: Author.
- Cohen, P. A., Ebeling, B., & Kulik, J. A. (1981). A meta-analysis of outcome studies of visual-based instruction. *Educational Communication and Technology: A Journal of Theory, Research, and Development*, 29, 26-36.
- DeVany, A. (Ed.). (1994). *Watching Channel One: The convergence of students, technology, and private business*. Albany: State University of New York Press.
- Dweck, C. S., & Leggett, E. L. (1988). A social-cognitive approach to motivation and personality. *Psychological Review*, 95, 256-273.
- Eccles, J. S. (1995, March). *Measuring context in studies of adolescence*. Symposium chaired at the biannual meeting of the Society for Research in Child Development, Indianapolis, IN.
- Eisenberger, R., & Cameron, J. (1996). Detrimental effects of reward: Reality or myth? *American Psychologist*, 51, 1153-1166.
- Funkhouser, G., & McCombs, M. (1971). The rise and fall of news diffusion. *Public Opinion Quarterly*, 35, 107-113.
- Genova, B. K., & Greenberg, B. J. (1979). Interest in the news and the knowledge gap. *Public Opinion Quarterly*, 43, 79-91.
- Gunter, B. (1987). *Poor reception: Misunderstanding and forgetting broadcast news*. Hillsdale, NJ: Lawrence Erlbaum.
- Harackiewicz, J. M., & Elliot, A. J. (1993). Achievement goals and intrinsic motivation. *Journal of Personality and Social Psychology*, 65, 904-915.
- Harter, S. (1982). The Perceived Competence Scale for Children. *Child Development*, 53, 89-97.
- Heyman, G. D., & Dweck, C. S. (1996). Development of motivation. In E. De Corte & F. E. Weinert (Eds.), *International encyclopedia of developmental and instructional psychology* (pp. 209-213). Oxford: Pergamon.
- Johnston, J., & Anderman, E. M. (1993). *Channel One: The school factor*. Ann Arbor: University of Michigan, Institute for Social Research.

- Johnston, J., & Brzezinski, E. J. (1992). *Taking the measure of Channel One: The first year*. Ann Arbor: University of Michigan, Institute for Social Research.
- Johnston, J., Brzezinski, E. J., & Anderman, E. M. (1994). *Taking the measure of Channel One: A three year perspective*. Ann Arbor: University of Michigan, Institute for Social Research.
- Johnston, L. D., O'Malley, P. M., & Bachman, J. G. (1992). *The 1991 survey of drug use by American high school and college students*. Ann Arbor: University of Michigan, Institute of Social Research.
- Kohn, A. (1986). *No contest: The case against competition*. Boston: Houghton Mifflin.
- Krathwohl, D. R. (1993). *Methods of educational and social science research*. White Plains, NY: Longman.
- Lepper, M. R., Greene, D., & Nisbett, R. E. (1973). Undermining children's intrinsic interest with extrinsic rewards: A test of the "overjustification" hypothesis. *Journal of Personality and Social Psychology*, 28, 129-137.
- Lepper, M. R., Keavney, M., & Drake, M. (1996). Intrinsic motivation and extrinsic rewards: A commentary on Cameron and Pierce's meta-analysis. *Review of Educational Research*, 66, 5-32.
- Maehr, M. L. (1976). Continuing motivation: An analysis of a seldom considered educational outcome. *Review of Educational Research*, 46, 443-462.
- Maehr, M. L., & Midgley, C. (1991). Enhancing student motivation: A schoolwide approach. *Educational Psychologist*, 26, 399-427.
- Maehr, M. L., & Midgley, C. (1996). *Transforming school cultures*. Boulder, CO: Westview.
- Maehr, M. L., & Pintrich, P. R. (Eds.) (1991). *Advances in motivation and achievement*. (Vol. 7). Greenwich, CT: JAI Press.
- Meece, J. L., Blumenfeld, P. C., & Hoyle, R. H. (1988). Students' goal orientations and cognitive engagement in classroom activities. *Journal of Educational Psychology*, 80, 514-523.
- Midgley, C., Maehr, M. L., Hicks, L. H., Roeser, R., Urdan, T., Anderman, E. M., & Kaplan, A. (1996). *Patterns of Adaptive Learning Survey*. Ann Arbor: University of Michigan, Combined Program in Education and Psychology.
- National Assessment of Educational Progress (NAEP). (1990). *The civics report card*. Princeton, NJ: Author.
- Nicholls, J. G. (1989). *The competitive ethos and democratic education*. Cambridge, MA: Harvard University Press.
- Nolen, S. B. (1988). Reasons for studying: Motivational orientations and study strategies. *Cognition and Instruction*, 5, 269-287.
- Nolen, S. B., & Haladyna, T. M. (1990). Motivation and studying in high school science. *Journal of Research in Science Teaching*, 27, 115-126.
- Pintrich, P. R., & De Groot, E. V. (1990). Motivational and self-regulated learning components of classroom academic performance. *Journal of Educational Psychology*, 82, 33-40.
- Pintrich, P. R., & Garcia, T. (1991). Student goal orientation and self-regulation in the college classroom. In M. L. Maehr & P. R. Pintrich (Eds.), *Advances in motivation and achievement* (Vol. 7, pp. 371-402). Greenwich, CT: JAI Press.
- Pintrich, P. R., & Schrauben, B. (1992). Students' motivational beliefs and their cognitive engagement in classroom academic tasks. In D. Schunk & J. Meece (Eds.), *Student perceptions in the classroom* (pp. 149-183). Hillsdale, NJ: Lawrence Erlbaum.
- Pintrich, P. R., & Schunk, D. H. (1996). *Motivation in education*. Englewood Cliffs, NJ: Prentice-Hall.
- Price, V., & Zaller, J. (1993). Who gets the news? *Public Opinion Quarterly*, 57(2), 133-164.
- Rakow, L. F., & Kranich, K. (1991). Woman as sign in television news. *Journal of Communication*, 41, 8-23.

- Robinson, J. P., & Davis, D. K. (1986). Comprehension of a single evening's news. In J. P. Robinson & M. R. Levy (Eds.), *The main source: Learning from television news* (pp. 87-106). Beverly Hills, CA: Sage.
- Robinson, J. P., & Levy, M. R. (Eds.) (1986). *The main source: Learning from television news*. Beverly Hills, CA: Sage.
- Ryan, R. M., & Deci, E. L. (1996). When paradigms clash: Comments on Cameron and Pierce's claim that rewards do not undermine intrinsic motivation. *Review of Educational Research*, 66, 33-38.
- Schiel, J., & Noble, J. (1991). *Accuracy of self-reported coursework and grade information of high school sophomores* (ERIC Document Reproduction Service No. 344 946). Washington, DC: U.S. Department of Education.
- Shaver, J. P. (1989). Lessons from the past: The future of an issues-centered social studies curriculum. *Social Studies*, 80, 192-196.
- Shymansky, J. A., Kyle, W. C., & Alport, J. M. (1983). The effects of new science curricula on student performance. *Journal of Research in Science Teaching*, 20, 387-404.
- Tichenor, P. J., Donohue, G. A., & Olien, C. N. (1970). Mass media flow and differential growth in knowledge. *Public Opinion Quarterly*, 34, 159-170.
- Tiene, D. (1993). *Channel One: Good or bad news for our schools?* *Educational Leadership*, 50, 46-51.
- Toch, T. (1992, November 9). Homeroom sweepstakes. *U.S. News & World Report*, pp. 86-89.
- Weiner, B. (1986). *An attributional theory of motivation and emotion*. New York: Springer-Verlag.
- Weinstein, T., Boulanger, F. D., & Walberg, H. J. (1982). Science curriculum effects in high school: A quantitative synthesis. *Journal of Research in Science Teaching*, 19, 511-522.
- Wigfield, A., & Eccles, J. S. (1992). The development of achievement task values: A theoretical analysis. *Developmental Review*, 12, 265-310.
- Wilson, K. M. (1985). *The relationship of GRE general test item-type part scores to undergraduate grades* (ERIC Document Reproduction Services No. 255 542). Washington, DC: U.S. Department of Education.
- Young, A. J., & Urdan, T. C. (1993, April). *The influence of perceived classroom goals and prior beliefs on aspects of student motivation*. Poster presented at the annual meeting of the American Educational Research Association, Atlanta, GA.

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