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ABSTRACT

The students in our classes are widely discrepant in their motivations and aspirations. Some are eager to learn and succeed; some seem to want nothing to do with the educational system or its benefits. Academically able students may fail to reach their full academic potential for a variety of reasons, and home, school, social, and cultural factors may contribute to students' underachievement. Often underachievers appear to be unmotivated to complete their schoolwork or to engage in classroom activities. Some students underachieve in school because they do not value the outcomes of school, nor do they enjoy completing schoolwork. Whatever the etiology of the underachievement, we believe that many bright students lack motivation because they do not value the goals of school. To reverse underachievement that stems from an apparent lack of motivation, educators must first determine how to build task value into the student's scholastic experiences. The purpose of the "Class Value Assessment" instrument is to assess the task values of underachievers. (Author)



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A Pilot Validation of the Class Value Assessment

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A Pilot Validation of the Class Value Assessment

The students in our classes are widely discrepant in their motivations and aspirations. Some are eager to learn and succeed; some seem to want nothing to do with the educational system or its benefits. Academically able students may fail to reach their full academic potential for a variety of reasons, and home, school, social, and cultural factors may contribute to students' underachievement. Often underachievers appear to be unmotivated to complete their schoolwork or to engage in classroom activities. Some students underachieve in school because they do not value the outcomes of school, nor do they enjoy completing schoolwork. Whatever the etiology of the underachievement, we believe that many bright students lack motivation because they do not value the goals of school. To reverse underachievement that stems from an apparent lack of motivation, educators must first determine how to build task value into the student's scholastic experiences. The purpose of the *Class Value Assessment* instrument is to assess the task values of underachieving students.

Review of Literature

Achievement values are "the incentives or purposes that individuals have for succeeding on a given task" (Wigfield, 1994, p. 102). According to the expectancy-value theory, motivation is the product of expectancy for success and the value of the incentive (Boggiano & Pittman, 1992). In other words, the value that a person places on either the task or the outcome and his perceived probability of success determine the amount of effort that he will exert attempting to successfully complete the task. The motivating potential of anticipating outcomes is largely determined by the subjective value that the person places on the attainment (Bandura, 1997). Two people may hold the same belief that their behavior will result in a particular outcome; however,



they may evaluate the attractiveness of that outcome quite differently (Bandura, 1997). The person who values the outcome or finds the outcome more attractive will be more motivated to attain the outcome. Value can somewhat compensate for low probabilities of success. People may put forth effort when they value the outcome, even when they believe that their probability of success is quite low. For example, people who enter sweepstakes or buy lottery tickets are motivated to engage in an activity with an extremely low probability of success due to the extremely high value attached to the outcome. As the jackpot becomes larger, more people engage in lottery ticket buying behavior, even though the probability of winning the lottery remains extremely low. This example demonstrates the power of value in determining people's behavior.

Children's achievement values affect their self-regulation and motivation (Wigfield, 1994) because goals influence how children approach, engage in, and respond to academic tasks (Hidi & Harackiewicz, 2000). "When students value a task, they will be more likely to engage in it, expend more effort on it, and do better on it" (Wigfield, 1994, p. 102). Research indicates that children's subjective task values are strong predictors of children's intentions and decisions to continue taking coursework in both math and English (Wigfield, 1994; Wigfield & Eccles, 2000). Eccles and Wigfield, two leading researchers in the field of motivation, expanded Atkinson's expectancy value model to include a variety of achievement related influences that impact individuals' expectancies and values (Wigfield, 1994). In particular, they hypothesized that students' motivation to complete tasks stems from the attainment value, utility value, and intrinsic value associated with the task (Wigfield, 1994), as well as with the costs associated with engaging in the task.



Attainment value is the importance students attach to the task as it relates to their conception of their identity and ideals or their competence in a given domain (Wigfield, 1994). Attainment value "relates the importance individuals attach to a given task to the broader, core values they have about themselves" (Wigfield, 1994). For example, students who identify themselves as athletes set goals related to their sport. Students who pride themselves on being good students seek affirmation in the form of grades or test scores. These students are motivated to attain the goals because they are associated with the students' perceptions of who they are. Providing students with models who value academic achievement may be one way to increase attainment value.

Utility value is how the task relates to future goals. While students may not enjoy an activity, they may value a later reward or outcome it produces (Wigfield, 1994). The activity must be integral to their vision of their future, or it must be instrumental to their pursuit of other goals. Because goals can play a key role in attaining later outcomes, educators and parents should help students see beyond the immediate activity to the long-term benefits it produces. Teachers need to be able to answer the common query, "Why do we have to study this stuff?" Research on gifted underachievers has demonstrated the importance of valuing academic and career goals on students' eventual reversal of their underachievement. Peterson (2000) followed achieving and underachieving gifted high school students into college. She found achievers' early certainty about career direction suggests that having aspirations and future goals may encourage academic achievement. Emerick (1992) reported that former underachievers were able to reverse their underachievement through the development of attainable goals that were both personally motivating and directly related to academic success.



Intrinsic value often results from the enjoyment an activity produces for the participant (Wigfield, 1994). When students enjoy scholastic tasks, they are intrinsically motivated to do well. Both interests and personal relevance produce intrinsic value for a student. Generally, students are intrinsically motivated to pursue activities that are moderately novel, interesting, enjoyable, exciting, and optimally challenging.

The purpose of this pilot study was to develop an instrument, the Class Value

Assessment, to measure students' task value. The theoretical basis for the instrument came from

Eccles and Wigfield's model of task value. The instrument was designed to measure three aspects

of task value: attainment value, intrinsic value, and utility value.

First Pilot Version

The first pilot version of the instrument contained 25 questions designed to measure attainment value, intrinsic value, and utility value. The sample for the initial pilot study consisted of 200 college students. 170 of the college students were junior and senior education majors who were enrolled in a mandatory large lecture class in education. The other 30 students were students enrolled in a communications sciences course.

We subjected the instrument to an exploratory factor analysis using principal axis factor analysis. The analysis extracted five factors: the three hypothesized factors (intrinsic value, utility value, and attainment value) and two unanticipated factors. Table 1 reports the factor loadings and reliabilities for the three factors of interest. Because the attainment value factor and the utility value factor contained so few questions, we revised the CVA.

Pilot Validation of second version



Following the initial pilot, we wrote four new questions for the attainment value factor, 4 new questions for the utility value factor, and 3 new questions for the intrinsic value factor.

Sample

The sample for the pilot study of the revised version of the CVA consisted of 298 fourth through eighth grade students from 15 different school districts in the United States and Mexico. School districts were invited to participate in the pilot validation of the CVA. Students within participating school districts anonymously completed two pilot instruments. Parents were required to sign and return informed consent letters prior to their child's participation in the study. 188 students completed the math CVA; 110 students completed the language arts CVA.

We subjected the math CVA to an exploratory factor analysis using principal components analysis with oblimin rotation. Listwise deletion resulted in 176 cases for the factor analysis. This provided an n:p ratio of 7.33. We extracted components with eigenvalues above 1.1. The principal components analysis reproduced three hypothesized factors, intrinsic value, utility value, and attainment value. Next, we computed Cronbach's alpha reliability coefficients for each of the three factors. Item 5 was eliminated from the attainment value subscale because the reliability coefficient of the subscale increased with its removal. Item 19 was eliminated from the utility value subscale because the factor loading of item 19 was less than .60 and because the reliability coefficient of the subscale increased with its removal. The final version of the CVAmath contained 22 items. Table 2 reports the factor loadings and reliabilities for the three factors on the math CVA.

Language Arts CVA



We subjected the language arts CVA to an exploratory factor analysis using principal components analysis with oblimin rotation. Listwise deletion resulted in 98 cases for the factor analysis. This provided an n:p ratio of 4.08. We extracted components with eigenvalues above 1.1. The principal components analysis reproduced three hypothesized factors, intrinsic value, utility value, and attainment value. Next, we computed Cronbach's alpha reliability coefficients for each of the three factors. Item 5 was eliminated from the attainment value subscale of the CVA-language arts because the reliability coefficient of the subscale increased with its removal. Item 19 was eliminated from the utility value subscale because the reliability coefficient of the subscale increased with its removal. The final version of the CVA-math contained 22 items. Table 3 reports the factor loadings and reliabilities for the three factors on the math CVA.

The factor analysis and the reliability analysis of the two subject areas versions of the class value assessment produced similar results. The final versions of both the Math CVA and the language arts CVA contained 22 questions: 7 questions on the utility value subscale, 8 questions on the intrinsic value subscale and 6 questions on the attainment value factor. Tables 4 and 5 report the correlations among the 3 subscales of the CVA-Math and the CVA language arts.

The class-value assessment demonstrates preliminary evidence of reliability and validity for use as a research instrument. Future research on the CVA will explore the relationship between the three factors of the CVA and academic achievement. In addition, we plan to use the CVA with underachieving students to assess their task values in an attempt to increase students' task value for academic activities.



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Table 1

Factor Loadings and reliabilities for each of the factors on the initial version of the CVA (n=200)

Factor I: Intrinsic Value	Alpha Reliability = .91
Item	Loading
9. I find the content of this class interesting.	89
10. I like learning new things in this class	70
11. I enjoy the activities we do in this class	81
12. I find the content of this class boring	72
13. I enjoy doing the work in this class.	67
14. This class interests me.	
Factor II: Utility Value	Alpha Reliability = .84
Item	Loading
16. I will definitely use the information taught in this class	69
19. I need to know the content of this class.	72
20. The content of this class is useful.	83
21. Doing well in this class will help me with my future goals	57
Factor III: Attainment Value (Personal Importance)	Alpha Reliability = .87
Item	Loading
1. Doing well in this class makes me feel good about myself	
2. I feel that I must do well in this class	
3. It's personally important for me to do well in this class	



Table 2 Factor Loadings and reliabilities for each of the factors on the Math CVA (n=176)

Factor I: <i>Utility Value</i>	Alpha Reliability = .93
Item	Loading
20 The content of math class is useful	
21. Doing well in math class will help me with r	ny future goals91
24. Math class will help me to "get where I want	
18. Math class has many "real world" applicatio	
22. I am learning valuable information in math	
23. I will definitely use the information taught ir	
17. Math class is necessary for achieving my fut	
Factor II: Intrinsic Value	Alpha Reliability = .92
	Loading
12. I find the content of math class boring	
8. I am often bored in math class	
15. I find it easy to pay attention in math class	76
9. I find the content of math class interesting	75
11. I enjoy the activities that we do in math class	s
13. I enjoy doing the work in math class	74
14. Math class interests me	
16. I hate doing work in math class	
10. I like learning new things in math class	
Factor III: Attainment Value	Alpha Reliability = .88 Loading
7. I feel personal satisfaction from doing well in	
6. Doing well in math class gives me a sense of	
4. I need to do well in math class to please myse	
2. I feel that I must do well in math class	
1. Doing well in math class makes me feel good	
	•
3. It's personally important for me to do well in	main ciass



Table 3

Factor Loadings and reliabilities for each of the factors on the Language Arts CVA (n=100)

Factor I: Utility Value	Alpha Reliability = .94	
Item	Loa	ding
21. Doing well in language arts class will help me with n	ny future goals95	
18. Language arts class has many "real world" applicatio	ns91	
23. I will definitely use the information taught in language		
20. The content of language arts class is useful		
24. Language arts class will help me to "get where I want	t to go."81	
17. Language arts class is necessary for achieving my fut	ure goals	
22. I am learning valuable information in language arts of	class	
Factor II: Intrinsic Value	Alpha Reliability = .93	
Item	Loa	ding
	•	Ū
13. I enjoy doing the work in language arts class	85	
14. Language arts class interests me	81	
12. I find the content of language arts class boring	81	
9. I find the content of language arts class interesting	80	
16. I hate doing work in language arts class		
10. I like learning new things in language arts class		
8. I am often bored in language arts class	70	
15. I find it easy to pay attention in language arts class		
11. I enjoy the activities that we do in language arts class		
Factor III: Attainment Value	Alpha Reliability = .91	
Item	<u> </u>	ding
4. I need to do well in language arts class to please mysel		
7. I feel personal satisfaction from doing well in language		
3. It's personally important for me to do well in language		
1. Doing well in language arts class makes me feel good		
6. Doing well in language arts class gives me a sense of a		
2. I feel that I must do well in language arts class	-	



Table 4:

Correlations among the subscales of the Class Value Assessment- Math

	Utility	Intrinsic	Attainment
Utility	1.0		
Intrinsic	.55	1.0	
Attainment	.61	.54	1.0

Table 5:

Correlations among the subscales of the Class Value Assessment- Language Arts

	Utility	Intrinsic	Attainment
Utility	1.0		
Intrinsic	.64	1.0	
Attainment	.63	.64	1.0



Class Value Assessment- Math

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Instructions: Please rate how strongly you agree or disagree with the following statements. Use a range from (1) to (7) where (1) stands for strongly disagree and (7) stands for strongly agree. Please circle only one response choice per question.

Statement	Strongly Disagree	Disagree	Slightly Disagree	Neither agree nor disagree	Slightly Agree	Agree	Strongly Agree
1. Doing well in math class makes me feel good about myself.	1	2	3	4	5	6	7
2. I feel that I must do well in math class.	1	2	3	4	5	6	7
3. It's personally important for me to do well in math class.	1	2	3	4	5	6	7
4. I need to do well in math class to please myself.	1	2	3	4	5	6	7
5. Doing well in math class gives me a sense of accomplishment.	1	2	3	4	5	6	7
6. I feel personal satisfaction from doing well in math class.	1	2	3	4	5	6	7
7. I am often bored in math class.	1	2	3	4	5	6	7
8. I find the content of math class interesting.	1	2	3	4	5	6	7
9. I like learning new things in math class.	1	2	3	4	5	6	7
10. I enjoy the activities that we do in math class.	1	2	3	4	5	6	7
11. I find the content of math class boring.	1	2	3	4	5	6	7
12. I enjoy doing work in math class.	1	2	3	4	5	6	7
13. Math class interests me.		2	3	4	5	6	7
14. I find it easy to pay attention in math class.	1	2	3	4	5	6	7
15. I hate doing the work in math class.	1	2	3	4	5	6	7
16. Math class is necessary for achieving my future goals	1	2	3	4	5	6	7
17. Math class has many "real world" applications.	1	2	3	4	5	6	7
18. The content of math class is useful.	1	2	3	4	5	6	7
19. Doing well in math class will help me with my future goals.	1	2	3	4	5	6	7
20. I am learning valuable information in math class.	1	2	3	4	5	6	7
21. I will definitely use the information taught in math class.	1	2	3	4	5	6	7
22. Math class will help to "get me where I want to go."	1	2	3	4	5	6	7



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Class Value Assessment- Language Arts

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Instructions: Please rate how strongly you agree or disagree with the following statements. Use a range from (1) to (7) where (1) stands for strongly disagree and (7) stands for strongly agree. Please circle only one response choice per question.

Statement	Strongly Disagree	Disagree	Slightly Disagree	Neither agree nor disagree	Slightly Agree	Agree	Strongly Agree
1. Doing well in language arts class makes me feel good about myself.	1	2	3	4	5	6	7
2. I feel that I must do well in language arts class.	1	2	3	4	5	6	7
3. It's personally important for me to do well in language arts class.	1	. 2,	3	. 4.	5	6	. 7
4. I need to do well in language arts class to please myself.	1	2	3	4	5	6	7
5. Doing well in language arts class gives me a sense of accomplishment.	1	2	3	4	5	6	, .7 _.
6. I feel personal satisfaction from doing well in language arts class.	1	2	3	4	5	6	7
7. I am often bored in language arts class.	1	2	3	4 .	. ∳. 5 ⊹	6	· 7.
8. I find the content of language arts class interesting.	1	2	3	4	5	6	7
9. I like learning new things in language arts class.	1	2	3	4	* 5	6	7
10. I enjoy the activities that we do in language arts class.	1	2	3	4	5	6	7
11. I find the content of language arts class boring.	1	2 ,	3	4	5	6	7
12. I enjoy doing work in language arts class.	1	2	3	4	5	6	7
13. Language arts class interests me.	1	- 2 =	3	4	. 5	6	7
14. I find it easy to pay attention in language arts class.	1	2	3	4	5	6	7
15. I hate doing the work in language arts class.	-1	2	3	4	5	6	7
16. Language arts class is necessary for achieving my future goals	1	2	3	4	5	6	7
17. Language arts class has many "real world" applications.	1	2	3	4	5	6	7
18. The content of language arts class is useful.	1	2	3	4	5	6	7
19. Doing well in language arts class will help me with my future goals.	1	2	3	4	5	6	7
20. I am learning valuable information in language arts class.	1	2	3	4	5	6	7
21. I will definitely use the information taught in language arts class.	1	2	3	4	5	6	7
22. Language arts class will help to "get me where I want to go."	1	2	3	4	5	6	7





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