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Academic Success and Struggle: A Study of Motivation and Literacy in a Sample of Low-Income 7th Graders

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Academic Success and Struggle:
A Study of Motivation and Literacy in a Sample of Low-Income 7th Graders

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$\mathcal{A}$bstract

In this paper, we investigate the influence of
motivation and gender on language and literacy
achievement of a group of low-income children in
7th grade (average age 12.9 years old) who have
been followed since they were 3 years old (n=54).
Mixed methods were used to explore the relation
between motivational resources (including
perceived scholastic competence, engagement in
learning, and future aspirations) and reading and
achievement outcomes. Reading comprehension
ability, as measured by standardized tests, was
shown to be necessary but not sufficient for
academic success for both boys and girls. While
there were no significant gender differences in
motivation as measured by scholastic competence
and engagement, students' written narratives
suggested that boys and girls had divergent
understandings and expression of motivation as it
related to their future aspirations and goals.

Academic Success and Struggle: A Study of Motivation and Literacy in a Sample of Low-Income 7th Graders

Mastering literacy skills is an essential task for children as they proceed through school (Snow, Burns, & Griffin, 1998), and reading and writing competence should be well ingrained by the time they reach adolescence. Academic success in middle school and beyond continues to be strongly related to reading and writing ability, but the role of motivation becomes much more central (Eccles, Wigfield, & Schiefele, 1998; Grolnick, Ryan, & Deci, 1991). Adolescents from low-income families face additional challenges due to financial constraints and limited social capital that negatively influence success for students of all ability levels. In this paper, we investigate the influence of motivation and gender on language and literacy achievement of a group of low-income children in middle school.

Data was collected as part of the longitudinal Home-School Study of Language and Literacy Development (Snow, 1991). The study was originally designed to investigate precursors of literacy development, and study participants have been followed since they were 3 years old. Our analyses for this paper focus on several types of data collected when children were in 7th grade, including standardized language ability tests, writing samples and interviews. Data collected prior to 7th grade was also used to provide additional context for our results.

Analyses of Home-School Study participants' language and literacy development from preschool through early elementary school have provided a clearer understanding of the mechanisms by which home and school environments influence reading outcomes (see Dickinson & Tabors, 2000). In their early years, children acquire literacy through development of phonological awareness (Adams, 1990; Scarborough, 1991), having numerous and varied opportunities to engage in extended discourse with parents and teachers (Snow, Tabors, & Dickinson, 2001), and by exposure to new and novel vocabulary words (Tabors, Beals, & Weizman, 2001), to name a few key aspects of literacy acquisition. Young children who have reading difficulties tend to be diagnosed early and are often placed in school programs designed to provide remedial service (often with a strong emphasis on strategies to improve phonological processing by understanding segmentation of words (Blachman, 2000). However, by the time children reach later elementary school, reading difficulties can begin to manifest in more subtle ways as students begin to read less, and with less fluency and comprehension.

In their review of the research on reading motivation, Guthrie and Knowles (2001) describe the tendency for researchers to view motivation as a goal-driven process in which the reader is either intrinsically or extrinsically motivated to read. Readers may seek to read because it is an end in itself, in the enjoyment it provides (Deci, 1992), or because it is a means to an end, such as grades, or rewards (Deci, Vallerand, Pelletier, & Ryan, 1991). Intrinsic motivation has the potential to positively reinforce learning goals, in that the enjoyment and challenge of reading leads to mastery, which is an incentive to continue and expand reading practices. On the other hand, extrinsic motivation may lead to a reliance and undue focus on the reward at the expense of mastery (Meece & Miller, 1999). In addition, interest in reading may be personal or situational, with personal influences more likely to positively influence comprehension (Schiefele, 1992). Readers who are more engaged in the reading process, drawing from a variety of

strategies to understand text, tend to have better comprehension and achievement outcomes (Guthrie & Wigfield, 2000).

Much of the research on reading has not found significant gender differences for young readers (Snow, Barnes, & Griffin, 1998) and the same is true in our early findings from the Home-School Study. However, the literature does suggest gender differences with respect to special education identification, retention, and dropping out, with more boys being identified than girls (U.S. Department of Education. National Center for Education Statistics, 2000, 2001). We found similar trends in the Home-School Study sample, as well as indications that girls' reading motivation tended to be intrinsic, while boys described being motivated for extrinsic reasons (Porche, Ross, & Snow, in press). Thus, we were particularly interested in examining gender differences related to motivation and achievement as students move through middle school.

We hypothesize that cognitive ability, performance, engagement in school, academic self-esteem, and socio-economic status all contribute to achievement. Secondly, although there is little evidence of gender differences in the literature on early reading and language skills, we hypothesize that a difference does exist because boys and girls are socialized in and motivated towards language activities in different ways, such that girls are expected to do better in language arts and boys are expected to excel in math and science.

Method

Sample. This paper examines literacy motivation and success for a sample of racially and ethnically diverse low-income students (n=54) who have participated in a longitudinal study of literacy and language development since they were in preschool. To be included in the study, the families of these students had to qualify for Head Start services. Two-thirds of the children identified as White (67%), 21% as African American, 5% Latino, and 7% bi-racial. Twenty-two boys and 32 girls completed the 7th grade testing and interview protocol. The original sample included 83 children who joined the study when they were 3 years old (non-systematic attrition is attributed to families moving out of the area or either the parents or child choosing to end involvement). Thirty-two percent of the children in the full sample came from homes with single mothers and 39% came from homes where the family received AFDC. At the start of the study 54% of the mothers had a high school diploma and the remainder had between 6 and 11 years of formal education. Although none of the mothers had college degrees at the start of the study, several had taken college-level courses at community colleges or enrolled in post-high school training programs. Students attended different schools in the metro Boston area, including public, private and parochial schools. By 7th grade some were still in elementary settings while others were in middle schools. Several students were enrolled in public exam schools.

Procedure. Students were visited at school, where project staff administered standardized literacy assessments, a writing task, and a one-on-one survey that included both forced response and open-ended questions (and was audio-taped and transcribed). Parents had given written consent at the start of the study and again each year prior to school visits (annual visits, with the exception of one year, were made to either the home or school or both).

Quantitative Measures. Literacy assessments and self-reports of motivation, aspirations, and grades

were collected from students; a standardized measure of academic performance was collected from their 7th grade English teachers. A demographic measure of maternal educational level was also included.

Reading Achievement Outcomes:

California Achievement Test Fifth Edition (CTB Macmillan/McGraw Hill 1993); CAT). The CAT is a fifty item standardized test of reading comprehension. Students had 50 minutes to read passages silently and then answer comprehension questions related to each passage.

Students' Self-Reported English Grades. Students were asked to report the English grade they received on their most recent report card. Although the students were in different classrooms with the potential for variation in grading scales, we suggest there is adequate consistency among teachers and thus, use this grade as a measure of performance. In cases where we had the students' actual report card, we checked for consistency and found the student reports to be reliable.

Teacher-Child Rating Scale (Hightower et al., 1986); T-CRS). English teachers completed the Teacher-Child Rating Scale (T-CRS) which was comprised of a series of questions about the student's learning habits (motivation to achieve, work habits and level of concentration, and ability to follow directions).

Motivational Measures:

Self-Perception Profile for Children (Harter, 1985). Students completed the Scholastic Competence subscale of the Self-Perception Profile. This subscale is comprised of six items on a four-point response scale describing how students feel about competence in academic activities.

Rochester Assessment Package for Schools (Connell, 1996); RAPS). Students provided self-reports of their effort, attention, emotional engagement in school, initiative, and the importance of doing well in school. The scale is comprised of 18 items, representing these five subscales, as well as a Total Engagement Score. For this analysis we used the Total Engagement Score.

Plans for College. Students were asked in the open-ended portion of the survey whether their future plans included higher education. The interviewer prompted the students to talk about how college would help them achieve future goals, and what they considered necessary prerequisites to be accepted to the college of their choice. Student responses were coded as "not going to college" (0), "maybe going to college" (1), or "definitely going to college" (2).

Demographic Variable:

Maternal Education Level. At the beginning of the study, when students were in preschool, mothers were asked about their highest level of education. This was coded as number of years of formal education and ranged from 6 (6th grade education) to 15 years (high school diploma and some vocational school experience, or some community college courses, but no higher education degree).

Qualitative Data. Interview data and writing samples were collected from students during the 7th grade school visit.

> *7th Grade Writing Task.* Students were given 15 minutes to write the following essay: "Describe yourself ten years from now. Please include information about where you are living, what you are doing, who your friends are, and what you have done in the past ten years."

> *Writing Ability Measures.* These essays were transcribed and coded for *Form* (grammar, sentence structure, a sense of flow within and between sentences) on a five-point scale and *Content* (following directions correctly, text tied together thematically, providing details relevant

to overall theme) on a five-point scale, and a *Total Writing Score*, combining both Form and Content scores.

Results

Descriptive results. We investigate the relationship between motivation and language and literacy outcomes by first describing the range of motivation, reading, and demographic measures for this sample of students (Table 1). There was substantial variation in distribution of standardized assessments and evaluation across the sample, though on average the sample was at or below national mean levels.

Table 1. Full sample means and ranges for key variables (n=54)

Variables	Full Sample (n=54)	
	reported range	mean
Reading Comprehension (CAT)	2nd to 98th percentile	51st percentile
Student self-reported English Grade	F to A- (1 to 12 possible)	C+/B- (6.6)
Teacher Rating of Students Learning (T-CRS)	4th to 99th percentile	40th percentile
Student self-rating of Scholastic Competence (Harter)	1.17 - 4.0 (1 to 4 possible)	2.64
Student self-rating of Total Engagement (RAPS)	1.48 - 3.96 (1 to 4 possible)	2.83
Student plans to attend college	0-2	1.63 Yes/Maybe
Mother's years of formal education	6-15 years	11.5 years

Cluster Analysis. We used cluster analysis to discern groupings of students by the constellation of variables described above. This method allows us to distinguish among profiles of success or risk of failure in reading achievement and is used to distinguish groups of respondents rather than groups of variables. Each student had membership in one and only one profile type. The seven measurements used in the cluster analysis included reading comprehension ability (CAT), reported English grades, teacher ratings of student performance (T-CRS), scholastic competence (Harter), engagement (RAPS), future aspirations for higher education, and SES (represented by maternal education). This

exploratory technique suggested a solution of five separate clusters. Each of the clusters contained both boys and girls, suggesting that gender was not a distinguishing factor in formation of the five groups. We also tested for gender differences among the seven variables and found no significant differences between boys and girls. Table 2 shows the differences among the five profiles with respect to the seven original variables.

Clusters are ranked highest to lowest by the combination of reading achievement as measured by comprehension outcomes, and by ability, as measured by report card grades.

Table 2. Variable means of the five 7th grade clusters (n=54)

Variables	Cluster 1 (n=5)	Cluster 2 (n=10)	Cluster 3 (n=9)	Cluster 4 (n=14)	Cluster 5 (n=16)
Reading Comprehension (CAT)	83rd percentile	78th percentile	64th percentile	45th percentile	22nd percentile
Student Self-Reported English Grade	C+/B-	B	C+	B-	C
Teacher Rating of Student Learning (T-CRS)	50th percentile	89th percentile	22nd percentile	43rd percentile	13th percentile
Student Self-Rating of Scholastic Competence (Harter)	3.27	2.90	2.72	2.56	2.33
Student Self-Rating of Total Engagement (RAPS)	2.92	2.88	2.79	2.92	2.70
College Aspirations	Maybe/Yes	Yes	Maybe/Yes	Maybe/Yes	Maybe
Mentions College in Writing Sample	80%	80%	78%	57%	13%
Average Maternal Education Level	Some College 12.4 years	No high school diploma 11.7 years	No high school diploma 11.7 years	High school diploma 12.0 years	No high school diploma 10.6 years

Although there were no significant differences among the clusters on measures of engagement, reported grades, future aspirations, and SES (ANOVAS were performed to test differences by cluster for each variable), we did find some significant differences in the areas of reading comprehension, teacher ratings, and self-perception of scholastic competence between the highest and lowest scoring clusters of students. We retained all seven of these measures in our cluster analysis for two reasons: 1) we felt that each variable does make a substantive difference, even if not apparent in a small sample, and 2) differences between groups on the constructs represented by these variables would be clearer in our qualitative analysis.

Consider Clusters 1 and 2, representing students with high levels of reading comprehension and high reported grades. On average, students in Cluster 2 had the second highest score for reading comprehension, had the highest teacher ratings on performance and work habits, got the best grades, yet were the second highest in scholastic competence. In contrast, students in Cluster 1 scored highest in reading ability and highest in scholastic competence, on average, but had lower grades and lower teacher ratings. These very bright students, as reflected in standardized tests, were not performing to their potential and were viewed as average students by their teachers. While all students in Cluster 2 aspired to go to college, as a group, students in Cluster 1 were not as definite in their plans. This provides evidence that ability by itself is a necessary but not sufficient component of achievement.

Cluster 5 represents students with low reading comprehension and poor grades. On average, these students have low opinions of themselves in the academic domain, and in fact scored the lowest on each of the seven measures. Many of these students were receiving support services at school (e.g., special education placement, Chapter I, counseling) and several reported a history of developmental delays due to premature birth or mother's substance abuse when pregnant. This cluster of students are at the highest risk of academic failure, and by 7th grade six had been retained one or more times.

Overall, students in Clusters 3 and 4 appear to be average or slightly above average in reading comprehension and grades compared to other students in the sample. Compared to Cluster 3, Cluster 4 students have lower comprehension ability, on average, yet are doing slightly better in their grades and received more positive ratings by their teachers. The Cluster 4 students appear to be putting out more effort in school, for their ability level, compared to Cluster 3, where students appear to be working below their abilities.

Writing Task: Quantitative Analysis

We first reviewed students' writing task samples using typical language skill assessments, before moving on to a more psychological analysis of students' narratives. Scores on the writing ability measures - Form, Content, and Total Score - were for the most part normally distributed across the sample with a slight skew towards the higher end for Content and Total Score. These scores also had strong positive relationships to the CAT (Form: $r=.61$, $p<.0001$, Content: $r=.49$, $p<.0002$, and Total: $r=.61$, $p<.0001$). Students who did well on reading comprehension also proved to be the most able writers. Scores on these three measures fell into the clusters as expected; students in Cluster 1 and 2 did best, while students in Cluster 5 did poorly, and students in Clusters 3 and 4 fell in the average range. ANOVA tests on the writing scores by

cluster showed that students in Clusters 1 and 2 scored significantly higher on the Form and Total scores than Cluster 5; for Content scores, Cluster 2 scored significantly higher than Cluster 5. Finally, in tests of gender differences, there was no difference between boys' and girls' scores on the writing ability measures.

Thematic analysis. Essays were content-coded for theme in the following areas: types of jobs specified, references to college, references to where they would be living, and references to romantic relationships and/or children. Within these descriptions we differentiated between fantasy-based narratives and more realistic narratives. For these thematic groups we

Table 3. Writing scores for 7th grade writing task including means and ranges for the 5 clusters and the full sample

CLUSTER	FORM mean (range)	CONTENT mean (range)	TOTAL mean (range)
1 (n=5)	4.20 (3-5)	4.40 (4-5)	8.60 (5-9)
2 (n=10)	4.20 (3-5)	4.20 (3-5)	8.40 (6-10)
3 (n=9)	3.22 (2-5)	3.44 (3-4)	6.67 (5-9)
4 (n=14)	3.21 (3-5)	3.57 (2-5)	6.79 (5-9)
5 (n=16)	2.75 (1-5)	3.13 (1-5)	5.88 (2-9)
Full Sample (n=54)	3.35 (1-5)	3.61 (1-5)	6.96 (2–10)

Writing Task Qualitative Analysis

While we did not find motivation to be a significant differentiator of groups in our cluster analysis, we nevertheless believe that motivation, as measured by student engagement, is in fact a critical component of literacy success. To explore this further, we examined evidence of motivation within the students' writing samples and interview narratives, using both a thematic and interpretive analysis. These qualitative analyses provided some clues to differences between clusters that were not captured in our standardized measures of motivation and writing.

examined gender differences present in the students' essays.

Thematic analysis of the writing samples offers insight into the importance these adolescents place on different aspects of their future, such as gaining employment, continuing their education, and engaging in meaningful romantic relationships, as well as the degree to which they (and their parents) have begun to plan for their future.

By content coding the writing samples (Table 4), we found boys more often describing specific

jobs, while girls more often described pursuing higher education. Talk about being a full-time student in ten years was significantly higher for the girls. As exemplified in the conceptually clustered matrix (Table 5), both boys and girls mentioned relationships, but they talked about them in different ways. Boys would name people in their lives, while girls tended to give more information about their caretaking roles, or about the primacy of these relationships. For example, one boy in the middle cluster wrote: "I blew out my knee, at a game, that 4 scouts from the professional hockey teams were there. So, I didn't make it pro. So as an ending to my so called future, I am going to ask my girlfriend to marry me." While a girl in the middle group wrote: "I live by myself with one kid in Roxbury apartments. When I get my paychecks I try to save it up and get some tickets

to take my child anywhere she wants. In my life my child would come first and her education and my education, then anything after that." Finally, we wanted to distinguish what we call fantasy talk in these writing samples. When we define fantasy talk, we are not merely describing extremely high aspirations, but rather about "being the richest man in the world" or "owning IBM", without describing how that might happen. In other examples, fantasy may include stories about celebrities, for instance "marrying Mark Wahlberg" or hanging out with movie stars and sports stars. Table 6 shows how students described future jobs and careers by cluster. Students in lower performing/lower ability clusters tended to aspire to celebrity – sports stars and fashion models – compared to higher performing/higher ability student clusters.

Table 4. Description of what 7th grade boys and girls say about their futures (n=54)

What will you be doing 10 years from now?	Boys (n=22)	Girls (n=32)
Working and specifies type of job	82%	69%
Will be a student	9%	34%*
Student and working part-time	0%	9%
Hanging out/shops everyday/eats at restaurants	0%	6%
Searching for a job	9%	0%
Working but doesn't specify where	5%	0%
Illegible	0%	3%
Some reference to college/job training	45%	63%
Some specification of where living	86%	94%
Some mention of being in a relationship or married and/or having a family	32%	41%
High levels of fantasy, e.g. "richest man in the world" "married to Mark Wahlberg"	18%	19%

*t-test indicated that girls cited this significantly more than boys, p<.05.

Table 5. Conceptually clustered matrix: examples of themes from writing samples highlighting significant differences (spelling and punctuation corrected).

	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5
Mentions college (either is in college or went to college)	I'm 22 years old & go to U-mass college. I've been playing basketball and hope to make it to the WNBA.	I live in South Bend Indiana. I go to Notre Dame University here. This is my last year of college and I love it!	I have made it through High School and 2 years of college and I majored in cooking, and photography. I would go back to college in 2 years because I needed time to think and rearrange my life style.	In 10 yrs. from now I would like to have a college education. Studying to be a lawyer and playing the cello.	N/A
Mentions Relationships or children (or both)	I live in a Dutch Colonial home with my wife and 2 kids.	N/A	I blew out my knee, at a game, and 4 scouts from the professional hockey teams were there. So, I didn't make it pro. So as an ending to my so called future, I am going to ask my girlfriend to marry me.	Ten years from now I will have a husband and a daughter. I will live in Florida, near Disneyland so I can bring my daughter. I will be a nurse. I have been working as a nurse in a doctor's office. Will also be a great wife and mother to my kid.	I have 2 kids a dog & cat. It will be really cool. I am a rock and roll mom with a husband that is a country star and my daughter plays the flute.

Table 6. Career Themes by Cluster and Gender, Numbered to Show Variety of Careers Named.

	Cluster 1 (n=5)	Cluster 2 (n=10)	Cluster 3 (n=9)	Cluster 4 (n=14)	Cluster 5 (n=16)
Boys	1. 7th grade math teacher 2. Small time actor	1. Looking for a job as an accountant while working in a grocery store 2. Student looking for accounting job 3. Restaurant owner/new sport creator	1. Quarterback in NFL (49ers) 2. Lawyer Accountant/CIA/SWAT team/Pilot training 3. Professional Actor/Pro hockey player/taken over Macintosh & AT&T 4. NHL (Pittsburgh Penguins)	1. Major League Baseball player for Atlanta Braves/Car engineer 2. Own Taekwondo School	1. Cop 2. Mechanic 3. President of USA 4. NHL player 5. Work at pizza shop 6. Working w/brother 7. Nice paying job 8. Basketball player 9. Construction worker
Girls	3. Elementary school gym teacher 4. Student/Coaches middle school basketball team 5. Student/working at a bookstore	4. Author 5. Part-time Student/Animal Health Technician 6. Student/Part-time job 7. Student/Part-time waitress	5. Self-employed working at home (was a model first) 6. Modeling/show business 7. Hairdresser/singer/actress 8. Babysitters/hair stylists	3. Nurse working at a hospital 4. Nurse working at a doctors office 5. Veterinarian 6. Runway model 7. Lawyer (2) 8.Marine Biologist working at Sea World 9. Medical school/Part-time hairdresser	10. Work at school for 1st graders 11. Rock and Roll Mom 12. Work at shop in the mall with her aunts 13. Famous model 14. Singer/movie star

When we examined these same themes by cluster we found some significant differences between the groups (Table 7). Groups scoring higher on reading comprehension and reporting higher grades described how college would enable them to attain the jobs or careers they aspired to. Both boys and girls in these groups were significantly less likely to talk about relationships – they were focused on achieving academic success, and one might infer from their responses that they planned to wait to pursue those romantic, or family goals, until they were older. Students

higher education, as it relates to future careers, is evident in Cluster 2, compared to the other groups, in that students had specific and realistic ideas about attending college and how it would factor into getting the sort of job they desire. Cluster 2 students displayed the strongest focus on education and career and made no mention of relationships, possibly implying that serious relationships (marriage and/or children) might hinder their ability to reach their goals, at least at the age of 22. Secondly, students in Clusters 3 and 5 engaged in a high level of fantasy talk, of

Table 7. Description of key themes in writing samples by cluster (n=54)

	Cluster 1 (n=5)	Cluster 2 (n= 10)	Cluster 3 (n= 9)	Cluster 4 (n=14)	Cluster 5 (n=16)
Specifies job	100%	50%	100%	79%	63%
Is a student	40%	70%‡	0%	29%	0%
Mentions college	80%	80%	89%	57%	13%†
Mentions where living	100%	100%	78%	93%	88%
Mentions Relationships or children (or both)	20%	0%†	67%	43%	44%
High level of fantasy talk	0%	0%	33%	0%	44%

‡ ANOVA tests suggest cluster is significantly higher than at least one other group (p<.05)
† ANOVA tests suggest cluster is significantly lower than at least one other group (p<.05)

with lower ability in reading comprehension and poorer grades included a high level of fantasy in their stories. In lieu of a future to look forward to, or aspirations for work, they dreamed of "making animals talk" or "living in a mansion with 7 BMWs and 6 Jaguars" or hanging with "Leonardo DiCaprio" and reenacting the loves scenes from the Titanic (see Table 5).

Although we did not find a difference between clusters on standardized measures of motivation, we did find some key differences in students' writing samples. The motivation to succeed in

becoming rich and famous without describing how they would achieve their goals (though the difference was not statistically significant, most likely because of sample size).

Interpretive analysis of the writing samples by gender suggested differences, as girls tended to describe a path of higher education and work to gain professional employment, while boys described futures as laboring in service jobs if they were lucky enough to find them (examples presented in Table 8 with spelling and punctuation corrected).

Table 8. Samples from the writing task.

Boys	Girls
High Comprehension/Highest Grades: I am Living on Campus at the University of North Carolina. It is OK. I am studying for business and accounting. My friends are Pat and Steve because we all went to the same college. I've got my high school diploma and have a few jobs but not any good ones. I want a job in accounting but there not any. I just have to keep looking. I want to find an apartment but once again there are not any I can afford.	***Highest Comprehension/High Grades***: 10 years from now I would be a hard working student at Boston University or Harvard Medical center. I would work at a nearby book store. Trying to start paying off my loan if I had one or I could have a full year scholarship.... I was at the top ten of my classmates and I have gone back to Jamaica and have seen my grandmother and the rest of my family. I have gotten my mother to reconcile with her sibling and we moved to a different part of Massachusetts....My mother has now moved to Fort Lauderdale, Florida. When I finish college I shall move with her. I will start an attorney law office until I become my life long dream as judge of the Supreme Court.
Lowest Comprehension/Lowest Grades: I can see myself ten years from now. I probably would drop out of school and work at a pizza shop or something. I'd probably live in an apartment building somewhere in Massachusetts. I would party most of my life with my friends and spend time with my family.	***Lowest Comprehension/Lowest Grades***: I'm 22 years old. I look like I'm 17. I live with my boyfriend in a house in Florida. Danielle lives next door to me. We have been doing the same thing for the last 4 years. We have been waking up, make breakfast, go take a shower, go to the beach, walk around, go swimming, go back home, eat lunch, go back to the beach and do the same thing unless we think of something else to do. That is how we live in 10 years from now but she has a boyfriend. It's about time she has a boyfriend.

A key focus in the boys' stories was having or looking for a job in a variety of areas including business, service, and manual labor. Friends and family were often mentioned, though without much elaboration. Our concern with these stories is the degree to which these 12 and 13 year-old boys talk about their future hardships, disappointments and failures. Even with a college education, they paint a bleak picture of finding work. This is remarkable considering that these writings were collected during the late 90's when the economy was booming and the jobless rate was at its lowest level in 30 years. While we did not see an effect of SES in our cluster analysis, we clearly see the effect of poverty on young adolescents' vision of their future in these writing samples.

Girls in the high scoring clusters tended to envision a future that included higher education as a key to successful careers. While both girls and boys in high scoring clusters described a plan for achieving their goals and gave examples of being motivated to work hard despite impending obstacles, girls' narratives were more planful and detailed. Girls also tended to describe their family and romantic relationships. In the first example (Table 8), this girl stresses the importance of keeping the family together and the second example portrays a girl with little ambition except for having and keeping a boyfriend. This may suggest that an important aspect of educational motivation is in keeping focused on individual goals, while not letting relationships overshadow them.

Discussion

The primary objective of Home-School Study was to determine precursors to early literacy development, and findings from the preschool data suggest that exposure to oral and print language is critical (Snow et al., 2001). Analysis of the same children's experiences in the early elementary grades supported the relationship between literacy and language ability and academic success (Snow et al., 1998; Snow & Tabors, 1993). More recently, we have found that as the students in our sample entered middle school, motivation has started to play a bigger role in their achievement (Ross, Roach, & Tabors, 2000; Snow, 2003). We are especially concerned

about a number of our students who demonstrated very high ability in language and literacy skills at the beginning of the study, which translated to very high grades in elementary school. By middle school, these same students who continued to demonstrate high ability in reading comprehension, described a lack of motivation toward school and provided evidence of declining performance on report cards.

In our cluster analysis we found that students' reports of engagement in school and scholastic competence did not differentiate groups of high, average, and low achievement. Motivation to succeed, as expressed in broader terms through the writing samples related to future educational and career aspirations, yielded more information about potential academic trajectories. Students with better writing skills also had better reading comprehension skills, better grades, and higher ambitions for their futures, than students with poor writing skills. Perhaps more importantly, even after correcting for spelling, punctuation, and grammar, the narratives of highly skilled, high achieving students were quite different from those of low skilled, low achievers. Students who lacked skills in describing their future also tended to lack a strong vision of success in their future and appeared to be extrinsically motivated rather than intrinsically motivated like their counterparts.

Integrating the two methodologies. A qualitative analysis of the content of the writing samples was used to inform the cluster analysis results. Scoring of writing samples using more standardized ratings of attention to grammar, correct use of language, and following directions provided information about ability and performance. Even by themselves, the standardized measures give us clues about students with high ability in reading comprehension and yet who performed below

their potential according to their grades (Cluster 1). Further, performance in class had prompted their teachers to misjudge their academic abilities, which might have diminished motivation to engage in classroom activities. The stories students told about their futures revealed much about motivation for succeeding in school and how school is related to entering the workplace as adults. Cluster 1 students told a story of adolescents thinking long-term and incorporating discipline and determination into their everyday lives as middle-school students. In contrast, the writing of Cluster 5 students suggested that little attention was paid to the future, and that the few students considering life after high school tended to aim low.

At the start of this longitudinal study, these students were from similar low-income backgrounds and almost all of them would be of the first generation in their family to make it to college. Differences in writing may reflect an internalization of family and community aspirations and support, or lack thereof. These differences also give clues to how educators might reach students who are not doing well. The amount of fantasy talk present for low-achieving students may be interpreted as evidence of low ambition, or a cynicism about the future, but is unlikely just a result of inability to follow directions. This is an area that will require further exploration and triangulation across student interviews (this same question about the future is being asked again as students complete their senior year of high school).

Conclusion

Our assessments revealed the high skill and ability level of some students who were not performing well in the classroom and whose abilities their middle-school teachers were underestimating. As students in our study

progress through school, we are finding that simply having the intelligence to do well is not enough to guarantee continued success in school, even though it distinguishes achievement in the early elementary grades. Motivation to succeed and to remain engaged in academics becomes ever more important during adolescent development. Moreover, motivation is a complex process that takes place in a particular context. Our statistical analysis investigated motivation more narrowly defined as it relates to behaviors and attitudes in the classroom. Our interpretive analysis allowed us to view the larger implications for motivation outside of the classroom, as influenced by life circumstances, including the oppressive effects of poverty, and how boys and girls may respond with divergent strategies.

Our educational system suffers when any student disengages from learning. The consequences for school failure are far reaching in the way they may limit potential of the individual and in turn limit our communities through loss of ecomomic and social contributions of well-educated and highly skilled citizens. This analysis reveals the flip-side of the myth of meritocracy. High achieving students in the best schools may not all necessarily be the brightest and most deserving, but may have the advantages and support that propel them forward. On the other hand, students at risk for failure may have considerable cognitive advantages that are eclipsed by socio-economic and socio-emotional factors. Much has been done to promote academic growth for young children in low-income families (e.g., Head Start). More recently, there is increased attention to processes of literacy development among older students, such as reading comprehension (Snow, 2002). As this research agenda continues to grow, it is critical that investigation into skill building be complemented by innovative efforts to engage older students in literacy so that early gains are not lost in adolescence.

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