MEMORANDUM May 11, 2011

TO: School Board Members

FROM: Terry B. Grier, Ed.D.
Superintendent of Schools

SUBJECT: **THE HOUSTON URBAN DEBATE LEAGUE, 2009–2010**

CONTACT: Carla Stevens, 713-556-6700

The Houston Urban Debate League (HUDL) was established in 2008 by a group of former high school and college debaters. After being granted affiliate status with the National Association for Urban Debate Leagues (NAUDL), on March 13, 2008, the Houston Independent School District (HISD) Board of Education unanimously voted to serve as a co-sponsor of a citywide debate league. The HUDL is a 503(c)(3) charitable organization that, similar to other UDLs, enters into public-private partnerships to enhance the investment of HISD in debate activities by providing financial support, mentoring, communication, and facilities that will contribute to making policy debate a mainstay in all HISD schools.

Overall, the current evaluation resulted in three main findings: (a) higher performing students may be more likely to participate in competitive policy debate; (b) after accounting for this potential selection bias, HUDL participants were more likely to have higher attendance rates, higher core course grades, and fewer disciplinary incidents than those who did not participate in debate; (c) intensity of participation in debate activities has an influence on these associations, such that students who participated in more rounds of debate had higher attendance rates, higher core course grades, and fewer disciplinary actions than those students with only marginal round participation.

Should you have any questions or require any further information, please contact me or Carla Stevens in the Department of Research and Accountability, at 713-556-6700.

Terry B. Grier

TBG

cc: Superintendent's Direct Reports
Chief School Officers
School Improvement Officers
Matilda Orozco
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RESEARCH

Educational Program Report

Houston Urban Debate League
2009–2010

Department of Research and Accountability
Houston Independent School District

2011 Board of Education

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RESEARCH

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Houston Urban Debate League

2009–2010

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Program Description

The mission of urban debate leagues is to make competitive debate accessible to students in urban school districts across the United States. The Houston Urban Debate League (HUDL) was established in 2008 by a group of former high school and college debaters. After being granted affiliate status with the National Association for Urban Debate Leagues (NAUDL), on March 13, 2008, the Houston Independent School District (HISD) Board of Education unanimously voted to serve as a co-sponsor of a citywide debate league (HUDL, 2009). The HUDL is a 503(c)(3) charitable organization that, similar to other UDLs, enters into public-private partnerships to enhance the investment of HISD in debate activities by providing financial support, mentoring, communication, and facilities that will contribute to making policy debate a mainstay in all HISD schools.

During the 2008–2009 academic year, the program's first year, as specified by the memorandum of understanding, HUDL was established in 15 HISD high schools. For 2009–2010, HISD agreed to double the HUDL's size by extending the program to all comprehensive high schools. As a result during its second year, the number of students participating in debate activities increased from 230 to 798. In order to serve those schools with high percentages of low-income and under-represented students, HUDL has specifically concentrated on implementing debate programs in those schools that are classified as Title I. Specifically, schools that are composed of at least 40% Title I qualified and 40% under-represented minority groups.

In May 2009, Title I stimulus funds, under the authority of the American Recovery and Reinvestment Act (ARRA), were made available to school districts. Districts then had the opportunity to allocate Title I stimulus money to specific programs. In HISD, one of these programs was HUDL. The purpose of the funding was to build, support, and sustain programs in Houston's public schools to make participation in competitive policy debate attainable to all students in the district.

Program Activities

In accordance with the goals of the HISD University Interscholastic League (UIL) Department, the HUDL provides cross-curricular competitive academic debate opportunities that involve both classroom and after-school enrichment activities. During the 2009–2010 academic year, the HUDL offered the following debate activities:

- Coaches' Clinic
- Summer Policy Debate Institute
- Debate Seminars
- Debate Courses
- Weekend Debate Tournaments

Purpose of the Evaluation

The purpose of this evaluation was to accomplish the evaluation specified in the Title I stimulus application, submitted by HUDL. This evaluation addressed the following research questions:

1. How did HUDL participants' course grades compare to a randomly selected group of students?

2. How did HUDL participants compare to a randomly selected group of students in terms of attendance rates and disciplinary actions?
3. How did increases in HUDL participation influence academic and professional behaviors?

Methodology

For the 2009–2010 school year, the HUDL served 798 students, enrolled at one of 27 HISD high schools. To meet the necessary data requirements for the study, only those HUDL students whose 2009–2010 data could be matched with their eighth grade data were included in analyses. The resulting sample of HUDL participants consisted of 663 students from 27 HISD high schools. A random sample of 664 HISD students, who did not participate in HUDL activities, was assembled as a comparison group and matched the HUDL sample in terms of school and grade level.

Key Findings

- Compared to the typical HISD student, HUDL participants were more likely to be female, more likely to be African American, and less likely to be Hispanic.

- HUDL participants had higher eighth-grade core course grades in all subjects than the HISD random sample, suggesting that higher performing students may have a preference for the activity.

- Overall, higher 2009–2010 attendance rates were more likely among men than women, Hispanic students had significantly higher attendance rates than African American students, and eighth–grade attendance had a strong positive relationship with 2009–2010 attendance. After controlling for the above covariates, the results suggested a tendency for HUDL students to have higher attendance rates than the typical HISD student.

- In terms of core course grades, Hispanic students had lower course grades in core subjects than White students. There was also a strong positive relationship between eighth-grade and 2009–2010 core course grade averages. After controlling for all covariates and initial levels of core course grades, the inclusion of a variable for HUDL indicated that HUDL participants were more likely to have higher core course grades that students from the HISD random sample.

- After controlling for the two covariates (ethnicity and gender) and initial level (eighth-grade attendance rate), the more rounds a HUDL student participated in, the more likely s/he was to have a higher attendance rate.

- Controlling for the other predictors, the number of rounds HUDL students participated in was positively associated with 2009–2010 core course grades.

- African American students were 80 percent more likely to receive a disciplinary action in 2009–2010. Additionally, students who received one or more disciplinary actions in eighth grade were 33 times more likely to receive one or more in 2009–2010. Finally, as round participation increased, the odds of receiving one or more disciplinary actions in 2009–2010 decreased by three percent.

HOUSTON URBAN DEBATE LEAGUE
2009–2010

Introduction

Program Description

The mission of urban debate leagues is to make competitive debate accessible to students in urban school districts across the United States. The first Urban Debate League (UDL) was founded in the Atlanta Public School District in 1985. The goal of the Atlanta model was to encourage under-served high school students to participate in competitive debate, regardless of their race and/or socioeconomic status (Warner & Bruschke, 2001). By lowering the traditional entry barriers associated with high school debate, the Atlanta UDL encouraged participation in a national activity that allowed inner-city students to compete with students from suburban schools. The success of the Atlanta UDL prompted the Open Society Institute to use it as an archetype for their Urban Debate Initiative (Breger, 2000). The resulting Urban Debate Program was intended to provide a mechanism to support the replication of the Atlanta UDL model in urban cities across the country. Most UDLs consist of a partnership between a local school district and a private non-profit organization, with a board of directors comprised of community leaders from a variety of disciplines. National leadership of the Urban Debate Network was assumed by the National Association for Urban Debate Leagues (NAUDL) in 2002. There are currently 24 UDLs affiliated with NAUDL.

According to the National Forensic League (NFL), there are three major styles of competitive debate: Lincoln-Douglas Debate, Public Forum Debate, and Policy Debate. Lincoln Douglas debate, also referred to as *values* debate, is a one-on-one style of debate that places a heavy emphasis on logic, ethical values, and philosophy. Debaters are encouraged to develop argumentation based on a values perspective. The debate focuses on reasoning to support a general principle and its implementation; one debater upholds each side of a given resolution from a value perspective. The outcome of the debate is typically determined by the soundness of the debaters' logical arguments, rather than the usefulness of the solution provided.

In contrast to the philosophical style seen in Lincoln-Douglas Debates, Public Forum Debate, also known as crossfire or controversy debate, typically involves current controversial foreign or domestic policy. Public Forum Debates consist of competing teams of two alternating speeches that either affirm or negate the given topic. Rather than focusing on argumentation theory, Public Forum Debaters make persuasive, logical arguments that are easily accessible to the general public.

Similar to Public Forum Debate, Policy Debate, or cross-examination debate, consists of teams of two, participating in a structured exchange, either advocating for or against pressing policy issues. Resolutions are selected annually by affiliated schools. The Affirmative team must defend the agreed upon resolution by demonstrating that the status quo is ultimately harmful and must be changed. The Affirmative then presents a Plan of Action to implement the resolution. The opposing team, or the Negative, then attempts to identify flaws in the Plan of Action and/or argues that the proposed plan does not offer any benefits above and beyond the current situation.

Urban debate leagues affiliated with NAUDL focus on policy debate. NAUDL argues that, of all of the interscholastic speech activities, policy debate is the most academically rigorous. Specifically, local UDLs can have a fundamental impact on participating schools by aiding in the development of core academic skills while promoting equity. Anecdotal and testimonial evidence suggests that debate participation results in a number of positive academic outcomes. Many debate supporters argue that policy debate fosters core academic skills in literacy, critical thinking, research, communication, organization, and supporting arguments (NAUDL, 2009). Additionally, by providing an arena for

students to practice simulating and evaluating competing sides of an argument, policy debate is thought to encourage civic engagement and personal advocacy (Warner & Bruschke, 2001). Finally, there is an abundance of evidence suggesting that a disproportionate number of leaders from the business world, the law, and the government are former debaters (NAUDL, 2009).

In terms of empirical evidence, Mezuk (2009) conducted a longitudinal study on the Chicago UDL from 1997 to 2006 to examine the impact of competitive policy debate on high school completion, academic achievement, and college readiness for African American male students. The sample of African American male students was compared to a random sample of students from the Chicago Public School system on cumulative grade point average, high school completion, and ACT scores (used as an indicator of college readiness). The study found that debate participants were 70% more likely to graduate and three times less likely to drop out of high school than non-participants, controlling for standardized test scores and grade point average. Similarly, debate participants had significantly higher grade point averages than non-participants. This difference was further heightened as intensity of participation increased (i.e., number of rounds). Finally, Chicago UDL participants had a greater likelihood of scoring at or above ACT benchmarks for college readiness in English and reading, but not science and mathematics, than non-participants.

Program History

The Houston Urban Debate League (HUDL) was established in 2008 by a group of former high school and college debaters. After being granted affiliate status with NAUDL, on March 13, 2008, the Houston Independent School District (HISD) Board of Education unanimously voted to serve as a co-sponsor of a citywide debate league (HUDL, 2009). The HUDL is a 503(c)(3) charitable organization that, similar to other UDLs, enters into public-private partnerships to enhance the investment of HISD in debate activities by providing financial support, mentoring, communication, and facilities that will contribute to making policy debate a mainstay in all HISD schools.

During the 2008–2009 academic year, the program's first year, as specified by the memorandum of understanding, HUDL was established in 15 HISD high schools. For 2009–2010, HISD agreed to double the HUDL's size by extending the program to all comprehensive high schools. As a result during its second year, the number of students participating in debate activities increased from 230 to 798. In order to serve those schools with high percentages of low-income and under-represented students, HUDL has specifically concentrated on implementing debate programs in those schools that are classified as Title I. Specifically, schools that are composed of at least 40% Title I qualified and 40% under-represented minority groups.

In May 2009, Title I stimulus funds, under the authority of the American Recovery and Reinvestment Act (ARRA), were made available to school districts. Districts then had the opportunity to allocate Title I stimulus money to specific programs. In HISD, one of these programs was HUDL. The purpose of the funding was to build, support, and sustain programs in Houston's public schools to make participation in competitive policy debate attainable to all students in the district.

Program Activities

In accordance with the goals of the HISD University Interscholastic League (UIL) Department, HUDL provides cross-curricular competitive academic debate opportunities that involve both classroom and after-school enrichment activities.

Coaches' Clinic

To prepare for the 2009–2010 school year, HUDL sponsored a two-day teacher training in July of 2009 to provide professional development specific to policy debate to all participating instructors. The

training covered numerous aspects of the HUDL program. Specifically, teachers were briefed on the 2009–2010 debate topic and learned essential debate and pedagogical skills. The league directors also introduced coaches to the available print and web resources, such as the NAUDL and HUDL websites and associated files, printed teacher manuals, student research resources, the National Debate Coaches Association, and accessing academic journals. Additionally, HUDL directors offered guidance on the development and sequencing of debate course curriculum. Finally, league directors helped coaches develop the skills necessary for recruitment, research, student leadership, and student retention.

Summer Policy Debate Institute

Participating students were also given the opportunity to attend a one-week summer debate institute, sponsored by the Texas Bar Foundation. The summer institute was designed to enable HUDL participants to collaborate with educators to develop key debate skills. Students who attended the summer institute first received a broad introduction to policy debate by viewing a staff-led mock debate. During the next several days, students received extensive lessons on the affirmative negative cases, including argument construction, evidence distribution, and flow of speeches. Finally, during the last two days, students were able to participate in an actual cross-examination debate, allowing them a forum to practice their newly acquired skills. Throughout the week, a number of former debaters were asked to speak to students.

Debate Seminars

HUDL also hosted six Saturday seminars, led by college debate teams from The University of Texas at Dallas, Trinity University, and Texas State University, as well as professional organizations such as Legacy Communication Resources. The seminars were developed to provide participating students additional instruction in debate theory, critical thinking, research, writing, communication, and study skills. During a typical seminar day, participants selected from several workshops, based on their abilities. Students chose one morning workshop and one afternoon workshop. Topics open to all debaters covered speaking skills, structure and flowing, debating the Negative, tips for powerful cross-examination, argumentation theory, refutation, and topicality. Varsity debaters also had the option of selecting from several more advanced topics, such as: splitting the negative block, counterplans, how to use flow, and advanced case argumentation. The Saturday seminars also included coaching seminars for participating teachers. During these sessions, HUDL directors typically discussed lesson plans with teachers and helped prepare them for upcoming tournaments. Debate topics such as disadvantages, counterplans, flowing, and topicality were also reviewed.

Debate Courses

School debate courses were offered in 17 of the 27 schools. Lesson plans were developed by HUDL directors and included weekly lessons on topics such as public speaking, debate basics (the status quo, burden of proof, burden of rejoinder, and presumption), and building affirmative and negative cases. Debate 1 consisted of two 16-week semesters. During the first semester, the focus of the lessons centered on the basics of argument, logic, research, writing, and speaking. The second semester expanded these skills, while also allowing students the opportunity to write their own cases and argument extensions. Course materials, including evidence and the primary text, were provided through a HUDL website for students to download. Course grades were primarily based on weekly research, writing, and speaking assignments. Students enrolled in debate courses were also required to attend at least one seminar and one tournament per semester in order to receive a passing grade.

Weekend Debate Tournaments

Finally, HUDL hosted and administered six two-day policy debate tournaments throughout the 2009–2010 school year. Tournaments were divided into two divisions: Junior Varsity, which was open to

novice debaters and any students wanting a refresher in debate basics, and Varsity, which was open to all argumentation and any affirmative case. Junior Varsity was limited to two affirmative cases during the fall semester and four during the spring. Regular season tournaments were held at six different HISD high schools from October through February. The first day of the tournaments consisted of Rounds one and two of preliminaries. Preliminaries were completed in Rounds three and four on the second day of the tournaments. Following preliminary rounds, qualifying debaters competed in octofinals, quarterfinals, semifinals, and finals.

Program Goals and Objectives

There were three goals specified for the Title I stimulus funds used for the HUDL program. The goals of HUDL were to: narrow the achievement gap for Title I high schools in HISD, increase high school graduation and college matriculation rates, and increase positive academic and professional behaviors. In their Title I Stimulus application, HUDL discussed a number of strategies they intended to employ to accomplish their goals. To address the achievement gap, HUDL sought to enhance students' critical thinking, researching, writing, communication, and study skills. To achieve that goal, HUDL hosted six Saturday seminars, hosted six weekend debate tournaments, provided a one-week summer debate institute, and wrote and provided debate course curriculum to teachers that emphasized debate training and access to professional resources. In an effort to increase high school graduation and college matriculation rates, HUDL provided students with networking opportunities through a league mentorship program and community participation in HUDL events. Additionally, HUDL attempted to increase academic relevance by providing cross-curricular programming and instruction. Finally, to increase positive academic and professional behaviors, HUDL monitored student absences, behavioral referrals, and grades, making participation contingent on no pass, no play standards.

Program Cost

For the 2009–2010 academic year, Title I, Part A Stimulus funds, offered through ARRA was $504,970. **Table 1** lists the funding categories and their allocated amounts and percentage of the total amount funded.

Table 1. Budget Breakdown of Stimulus Funds by Category: 2009–2010

Funding Category	Allocated Amount
Personnel	$326,687
Contracted Services	$32,000
Materials and Supplies	$101,249
Other Operating Costs	$45,034
Total	**$504,970**

Purpose of the Evaluation Report

To accomplish the evaluation specified in the Title I stimulus application, submitted by HUDL, the following research questions were addressed:

1. How did HUDL participants' course grades compare to a randomly selected group of students?
2. How did HUDL participants compare to a randomly selected group of students in terms of attendance rates and disciplinary actions?
3. How did increases in HUDL participation influence academic and professional behaviors?

Method

Participants

HUDL participants were identified through league and tournament records from the 2009–2010 academic year. **Figure 1** displays HUDL participation by grade level. Based on these data, the HUDL sample consisted of 798 students, enrolled at one of 27 HISD high schools. To meet the necessary data requirements for the study, only those HUDL students whose 2009–2010 data could be matched with their eighth grade data were included in analyses. The resulting sample of HUDL participants consisted of 663 students from 27 HISD high schools. Based on the school and grade level breakdown of the final sample of HUDL participants (see **Table 2**), a comparison group, who did not participate in the HUDL, was assembled at random. The selection of students in the comparison group was restricted to the 27 high schools that participated in HUDL during the 2009–2010 school year. The comparison group was also matched to the HUDL sample on grade level. The HISD random sample was matched to the HUDL sample in order to account for any school- and/or grade-level differences that may have influenced the outcome variables.

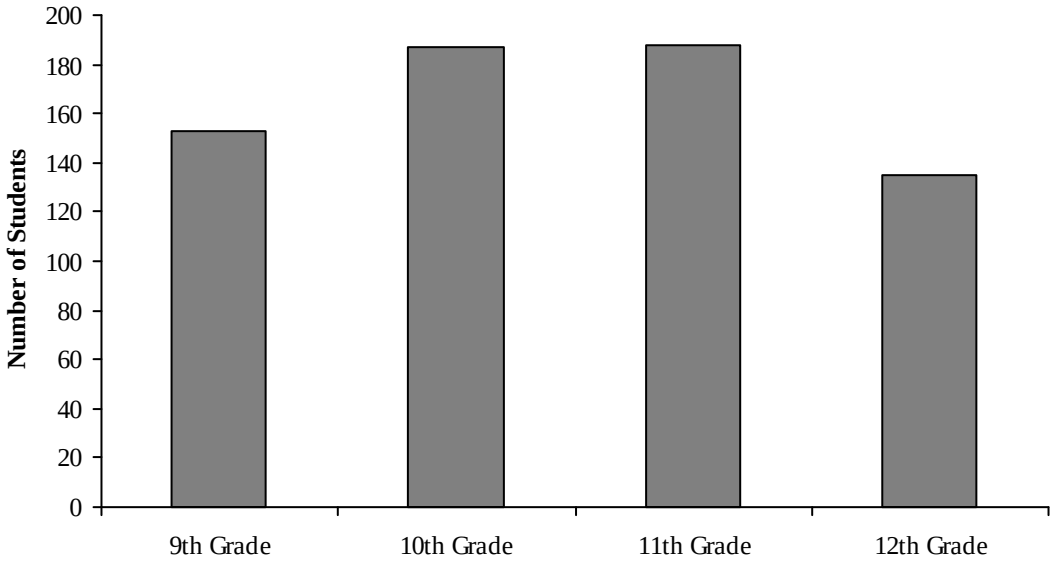

Figure 1. HUDL Participation, 2009–2010.

Table 2. Participation in the Houston Urban Debate League by School and Grade Level, 2009–2010

School	9th Grade	10th Grade	11th Grade	12th Grade	Total
Austin High School	0	3	11	2	16
Carnegie Vanguard	8	12	24	18	62
Challenge Early College	3	14	4	1	22
Chávez High School	0	1	1	4	6
Contemporary Learning Center	2	3	4	2	11
Davis High School	3	2	10	1	16
East Early College	8	16	7	9	40
Eastwood Academy	2	10	5	8	25
Furr High School	0	4	14	7	25
International HS at Sharpstown	39	26	10	0	75
Law Enforcement and Criminal Justice	0	9	9	2	20
Houston Academy for International Studies	13	13	4	0	30
Madison High School	1	0	6	6	13
Milby High School	13	4	2	1	20
North Houston Early College	16	16	0	0	32
Reagan High School	0	6	15	4	25
Scarborough High School	1	3	4	2	10
Sharpstown High School	0	3	6	22	31
South Early College	15	0	0	0	15
Sterling High School	6	6	10	14	36
Waltrip High School	2	2	6	10	20
Washington High School	7	4	1	1	13
Westbury High School	0	0	7	12	19
Westside High School	10	27	7	1	45
Wheatley High School	0	0	0	1	1
Worthing High School	0	0	10	6	16
Yates High School	4	3	11	1	19
Total	**153**	**187**	**188**	**135**	**663**

Data Collection

Student data analyzed in this report were obtained through a variety of sources. Chancery course files from 2009–2010 and the years participants were in eighth grade were used to determine changes in academic achievement that may be attributed, in part, to participation in HUDL activities. Course grades in core subject areas: English, mathematics, social studies, and science, were obtained for all HUDL participants and all students in the comparison group. Eighth grade course grades were used to determine the amount of improvement that occurred pre-high school and the current school year. Disciplinary action counts for HUDL participants and students comprising the comparison group were obtained from the 2009 PEIMS resubmission 425 (discipline) Record. The action reasons describe the precipitating behavior that led to the disciplinary action (e.g., in-school or out-of-school suspension). Attendance data were collected from the PEIMS resubmission ADA file for the 2009–2010 school year. Attendance rates were calculated for HUDL participants and students in the comparison group.

Data on debate participation were drawn from tournament records kept by HUDL staff members. During the 2009–2010 academic year, the HUDL held six tournaments. Each debate tournament consisted of five 90-minute structured rounds, during which students argued specified topics.

Data Analysis

Descriptive analyses were conducted to compare the students who participated in the HUDL to a random sample of HISD students. The statistical significance of these univariate group comparisons was determined using chi-squared tests for categorical variables (gender and ethnicity) and independent samples t-tests for continuous variables (i.e., attendance, course grades). These univariate tests were carried out to identify potential covariates to include in the primary analyses.

Hierarchical multiple regression was used to examine the influence of debate participation on attendance rate, number of disciplinary actions incurred, and grades in core courses. The first set of analyses focused on making group comparisons between HUDL students and the random sample of HISD students. In order to estimate the influence of debate independent from any pre-existing group differences that may have led to an increased likelihood to participate in debate and the outcomes (self-selection bias), each model was adjusted for eighth grade levels of the outcome. In other words, the model examining differences between the HUDL sample and the random sample in 2009–2010 attendance rates was adjusted for students' eighth grade attendance rates. Similar to Mezuk's (2009) study, for each analysis, eighth grade levels of the outcomes were included in each model, in addition to levels reported from the 2009–2010 academic year. Eighth grade levels of the outcomes were chosen as control variables due to the fact that HISD students are not eligible to participate in HUDL until ninth grade. Therefore, the eighth grade course grades, disciplinary actions, and attendance rates represent students' "pre-debate" behaviors (Mezuk, 2009).

Finally, to estimate the influence of differing levels of debate participation on the outcome variables, intensity of debate, or frequency of round participation was examined by restricting the sample to only students who participated in HUDL during the 2009–2010 academic year. Hierarchical multiple regression was used to determine how increased participation in HUDL events affected course grades, disciplinary actions, and attendance rates reported during the 2009–2010 school year. Similar to the models described for the group comparisons, the models used to analyze the influence of intensity of debate participation were adjusted for eighth grade levels of each of the outcome variables.

Prior to examining specific hypotheses, the data were examined for missing values and violations of the statistical assumptions underlying hierarchical multiple regression. According to HUDL staff, 798 students engaged in some level of participation in the HUDL events that occurred during the 2009–2010 academic year. After matching participating students' 2009–2010 attendance rates, disciplinary actions, and core course averages with their related data in eighth grade, 135 (16.9%) of the HUDL students were excluded from analyses due to the fact that they were missing paired data on the variables of interest. The resulting HUDL sample consisted of 663 students. A matched random sample of 664 students, who did not participate in the HUDL, served as a comparison group. Students from the HUDL sample and the comparison sample were matched on school attended and grade enrolled in during the 2009–2010 school year. The resulting full sample consisted of data from 1327 students.

No specific hypotheses were advanced regarding the potential effects of gender and ethnicity on the model variables. However, given that Mezuk (2009) found both variables to have a significant effect on debate outcomes, they were examined as potential covariates to include in the primary analyses. The statistical significance of these group comparisons was determined through chi-squared tests. As evident from **Table 3**, compared to the typical HISD student, HUDL participants were more likely to be female, more likely to be African American, and less likely to be Hispanic.

Table 3. Gender and Ethnicity Comparisons Between HUDL Participants and HISD Random Sample

	HUDL Participants		HISD Random Sample			
	N	*%*	*N*	*%*	Total	χ^2
Gender						
Female	391	59.0	334	50.3	725	10.07*
Male	272	41.0	330	49.7	602	
Ethnicity						
American Indian or Alaska Native	0	0.0	1	0.2	1	17.23*
Asian or Pacific Islander	23	3.5	17	2.6	40	
African American	237	35.7	174	26.2	411	
Hispanic	342	51.6	406	61.1	748	
White	61	9.2	66	9.9	127	

* $p < .01$

Table 4 displays the minimum and maximum values, means and standard deviations for eighth grade and 2009–2010 attendance rates, disciplinary actions, and core course grades (English, math, social studies, and science) for the HUDL and non-HUDL students. Mean scores on the model variables were compared for HUDL participants and the HISD random sample (see **Figures 2-4** for attendance rates, disciplinary actions, and core course grades). Since only high school students (grades nine through 12) are eligible to participate in the HUDL, the eighth grade estimates for attendance rate, disciplinary actions, and core course grade averages indicate the degree to which higher performing students self-select into the HUDL. As shown by Table 4, HUDL participants had higher eighth grade core course grades in all subjects than the HISD random sample, suggesting that higher performing students may have a preference for the activity.

Table 4. Comparison of Descriptive Characteristics of HUDL Sample and HISD Random Sample

	HUDL Participants		HISD Random Sample		
	Mean	Standard Deviation	Mean	Standard Deviation	*t*
8th Grade					
Attendance Rate	97.00	3.68	96.84	3.54	-.77
Disciplinary Actions	.50	1.19	.57	.38	1.08
English Grade	85.80	7.64	83.22	8.41	-5.63**
Mathematics Grade	81.97	7.79	80.66	8.13	-2.84**
Social Studies Grade	85.63	7.86	83.14	7.93	-5.61**
Science Grade	83.71	8.15	81.86	7.79	-4.08**
2009-2010					
Attendance Rate	95.73	5.28	94.56	7.71	-3.22**
Disciplinary Actions	.35	1.03	.47	1.31	1.95
English Grade	83.86	7.49	81.02	7.98	-6.40**
Mathematics Grade	81.98	8.77	79.46	9.28	-4.62**
Social Studies Grade	83.53	7.27	81.39	8.25	-4.19**
Science Grade	82.37	8.09	79.83	8.26	-5.08**

** $p < .01$

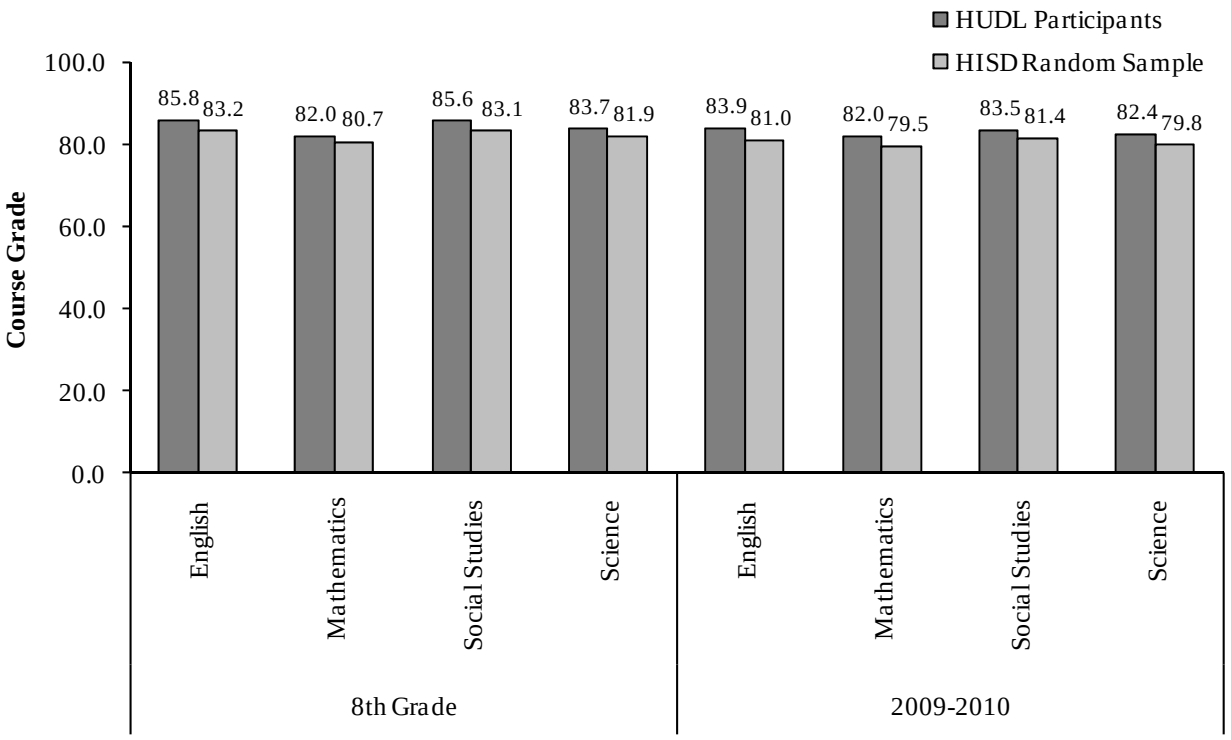

Figure 2. Average course grades for HUDL participants and HISD random sample.

Note. Eighth grade represents pre-HUDL course grades

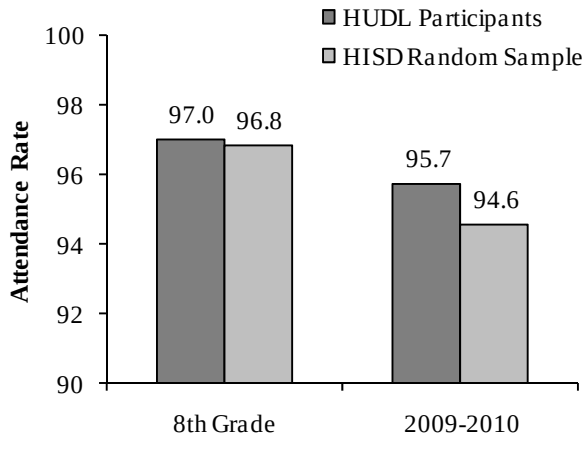

Figure 3. Attendance rates for HUDL participants and HISD random sample.

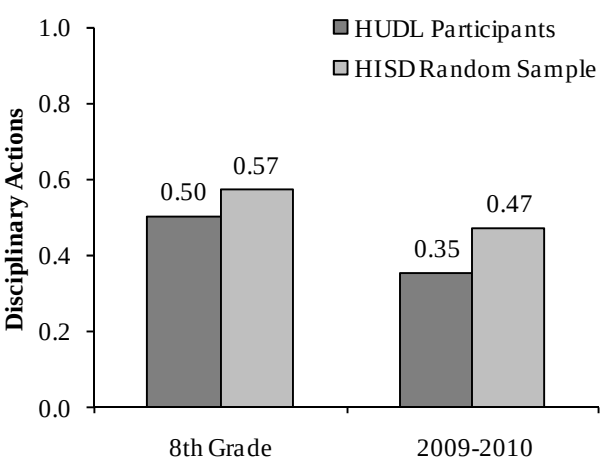

Figure 4. Disciplinary actions for HUDL participants and HISD random sample.

To examine the multicollinearity assumption for regression analyses, bivariate correlations among the variables were calculated. An initial look at the correlation table revealed that eighth grade English, mathematics, social studies, and science, as well as 2009–2010 English, mathematics, social studies, and science, were very highly correlated with one another. Given the potential for violations of the multicollinearity assumption, course grades were averaged across each time point (eighth grade or 2009–2010) to represent overall core course grades in eighth grade and core course grades in 2009–2010. **Table 5** displays the bivariate correlations among the variables of interest.

Table 5. Bivariate Correlation Coefficients for Model Variables

	8th Grade			2009–2010		
	Attendance Rates	Disciplinary Actions	Core Course Grades	Attendance Rates	Disciplinary Actions	Core Course Grades
8th Grade						
Attendance Rates	1.00					
Disciplinary Actions	-.28	1.00				
Core Course Grades	.31	-.30	1.00			
2009–2010						
Attendance Rates	.55	-.25	.35	1.00		
Disciplinary Actions	-.17	.26	-.29	-.33	1.00	
Core Course Grades	.24	-.21	.66	.36	-.30	1.00

Note. All *p*-values less than .001.

Results of an evaluation of assumptions led to the transformation of the variables to reduce skewness, reduce the number of outliers, and improve the normality, linearity, and homoscedasticity of residuals. Logarithmic transformations were applied to both eighth-grade and 2009–2010 attendance rates and course grades. Eighth-grade and 2009–2010 disciplinary actions were positively skewed without transformation, and negatively skewed with it, possibly due to the predominance of zeroes. As such, both were converted to dichotomous variables (0 = no disciplinary actions, 1 = one or more disciplinary actions). Multivariate outliers were detected, with the use of a $p < .001$ criterion for Mahalanobis distance. However, upon further inspection, nearly all of the outliers identified were among Asian students; the outliers were not removed.

Results

In response to the first and second research questions, which asked how HUDL participants compared to a random sample of HISD students in terms of core course grades, attendance, and disciplinary actions, it was hypothesized that participation in the HUDL would be associated with increased attendance rates, decreased disciplinary actions, and increased core course grades. To test this hypothesis, three separate hierarchical multiple regression models were conducted. Across all three models, gender and ethnicity (dummy coded, with Hispanic as the reference category) were entered in the first step, to remove the effect of these covariates. Next, eighth-grade levels of the outcomes were added. Finally, a dichotomous variable representing whether or not students participated in the HUDL (0 = HISD random sample, 1 = HUDL participant) was entered into the model.

How did HUDL participants' course grades compare to a randomly selected group of students?

It was predicted that HUDL participation would have a positive influence on 2009–2010 core course grade averages. **Table 6** displays *B, SE B, β,* and sr_i^2 for the regression equation predicting (log of) 2009–

2010 core course grades. As seen in the model for attendance rates, *R* for regression was significantly different from zero at each step. After step three, with the inclusion of all covariates and predictors, model estimates suggest that almost one half of the variance (R^2 = .45) in (log of) 2009–2010 core course grades was predicted by ethnicity, log of eighth-grade core course grades, and participation in the HUDL (F_{inc} (7, 1,210) = 138.91, $p < .001$). These findings suggest that Hispanic students had lower course grades in core subjects than White students. Not surprisingly, there was a strong positive relationship between eighth-grade and 2009–2010 core course grade averages. Finally, after controlling for all covariates and initial levels, the inclusion of a variable for HUDL participation resulted in a small, but significant increase in the amount of variance explained in 2009–2010 core course grade averages.

How did HUDL participants compare to a randomly selected group of students in terms of attendance rates and disciplinary actions?

2009–2010 Attendance Rates

It was predicted that participation in the HUDL would be associated with higher attendance rates. **Table 7** presents the unstandardized regression coefficients (*B*), the standard error terms for the unstandardized regression coefficients (*SE B*), the standardized regression coefficients (β), and the squared semipartial correlations (sr_i^2) for the model estimating 2009–2010 attendance rates. As seen in Table 6, *R* was significantly different from zero at the end of each step. After step three, with all control variables and the HUDL variable entered into the equation, R^2 = .32, F (7, 1,314) = 87.58, $p < .001$. The R^2 value of .32 suggests that nearly one third of the variability in 2009–2010 attendance rates was predicted by gender, ethnicity, eighth-grade attendance rate, and HUDL participation.

After step 1, with gender and ethnicity in the equation, R^2 = .03, F_{inc} (5, 1,316) = 7.43, $p < .001$. After step 2, with log of eighth-grade attendance rate added to the prediction of 2009–2010 attendance rate, by gender and ethnicity, R^2 = .31, F_{inc} (1, 1315) = 547.22, $p < .001$. After step 3, with HUDL added to the prediction of attendance rate by gender, ethnicity, and (log of) eighth-grade attendance rates, R^2 = .32, F_{inc} (1, 1314) = 9.39, $p < .01$. The findings suggest that ethnicity, gender, eighth-grade attendance, and HUDL participation reliably predict 2009–2010 attendance rates. Overall, covariates suggest that higher 2009–2010 attendance rates were likely among men than women, Hispanic students had significantly higher attendance rates than African American students, and eighth-grade attendance had a strong positive relationship with 2009–2010 attendance. Finally, controlling for the covariates, the addition of a variable representing participation in the HUDL resulted in a small, but significant increment in R^2, indicating the tendency for HUDL students to have higher attendance rates than the typical HISD student.

2009–2010 Disciplinary Actions

The last piece of the hypothesis, stated above, predicts that HUDL participation will lead to a decrease in disciplinary actions. As mentioned above, both eighth-grade and 2009–2010 estimates for disciplinary actions were converted into dichotomous variables, with zero representing no disciplinary actions and one suggesting that the student received one or more disciplinary actions. A hierarchical logistic regression analysis was performed to assess the prediction of whether or not a student received a disciplinary action during the 2009–2010 school year, first on the basis of demographic predictors (ethnicity and gender), then after the addition of a predictor indicating whether or not the students received a disciplinary action in eighth-grade (initial level), and finally, after the inclusion of a predictor indicating whether or not the students participated in HUDL.

Table 6. Hierarchical Multiple Regression Predicting 2009–2010 Core Course Grades

	Step 1				Step 2				Step 3			
	B	*SE B*	*β*	sr_i^2	*B*	*SE B*	*β*	sr_i^2	*B*	*SE B*	*β*	sr_i^2
Ethnicity (vs. Hispanic)												
American Indian or Alaska Native	-.234	.195	-.033	.001	-.138	.152	-.020	.001	-.128	.151	-.018	.001
Asian or Pacific Islander	.145	.032	.128**	.017	.022	.025	.019	.001	.021	.025	.018	.001
African American	-.019	.012	-.047	.002	-.003	.009	-.007	< .001	-.007	.009	-.016	< .001
White	.133	.019	.203**	.039	.040	.015	.061**	.006	.041	.015	.062**	.006
Gender	-.041	.011	-.106**	.012	-.002	.008	-.006	< .001	< .001	.008	-.002	< .001
8th Grade Core Course Average					.585	.021	.641**	.396	.573	.021	.629**	.382
HUDL Participation									.029	.008	.076**	.009
R^2	.07				.44				.45			
F for change in R^2	19.48**				790.79**				12.05**			

*$p < .05$, **$p < .01$.

Table 7. Hierarchical Multiple Regression Model Predicting 2009–2010 Attendance Rates

	Step 1				Step 2				Step 3			
	B	*SE B*	*β*	sr_i^2	*B*	*SE B*	*β*	sr_i^2	*B*	*SE B*	*β*	sr_i^2
Ethnicity (vs. Hispanic)												
American Indian or Alaska Native	-.031	.256	-.003	< .001	-.007	.215	< .001	< .001	.008	.215	.001	< .001
Asian or Pacific Islander	.103	.042	.068*	.004	.046	.035	.030	.001	.041	.035	.027	.001
African American	-.075	.016	-.134**	.017	-.036	.013	-.065	.006	-.041	.013	-.073**	.007
White	.016	.025	.019	< .001	.037	.021	.042	.002	.036	.021	.041	.002
Gender	.018	.014	.034	.001	.022	.012	.042	.003	.025	.012	.048*	.003
8th Grade Attendance					.431	.018	.541**	.294	.429	.018	.538**	.293
HUDL Participation									.037	.012	.071**	.007
R^2	.03				.31				.32			
F for change in R^2	7.43**				547.22**				9.39**			

*$p < .05$, **$p < .01$.

A test of the model fit (discrimination among groups), with all covariates and predictors, against a constant-only model was statistically significant, χ^2 (7, N=1,327) = 115.73, $p < .001$, suggesting that the predictors, as a whole, reliably distinguish between students who received no disciplinary actions in 2009–2010 and those who received one or more disciplinary actions in 2009–2010. The variance in disciplinary actions accounted for by the predictors is small, however, with Nagelkerke's R^2 = .13. Additionally, classification was unimpressive, with only 5.9 percent of students who received one or more disciplinary actions in 2009–2010 correctly predicted.

Table 8 shows regression coefficients, Wald statistics, and odds ratios for each predictor. According to the Wald criterion, ethnicity, gender, eighth-grade disciplinary actions, and HUDL membership all reliably predicted 2009–2010 disciplinary actions. Of primary interest, HUDL participation significantly decreased the odds of receiving one or more disciplinary actions by 28.0 percent. Thus, as Table 8 illustrates, controlling for the covariates and initial level, HUDL participation distinguishes between students who received a disciplinary action in 2009–2010 and those who did not, but the distinction is not a very strong one.

Table 8. Parameter Estimates for Logistic Regression on Disciplinary Actions

	Block 1			Block 2			Block 3		
	B	*Wald*	*Odds Ratio*	*B*	*Wald*	*Odds Ratio*	*B*	*Wald*	*Odds Ratio*
Ethnicity (vs. Hispanic)									
American Indian or Alaska Native	22.45	< .001	< .001	22.82	< .001	< .001	22.70	< .001	< .001
Asian or Pacific Islander	-.76	1.98	.47	-.55	1.04	.58**	-.52	.90	.60
African American	.54	13.90	1.72**	.42	7.85	1.53**	.46	9.28**	1.59
White	-.98	8.16	.37**	-.89	6.47	.41*	-.88	6.31*	.42
Gender	.46	10.97	1.59**	.37	6.79	1.45**	.34	5.58*	1.41
8th Grade Disciplinary Actions				1.20	64.77	3.33**	1.21	64.85**	3.35
HUDL Participation							-.33	5.14*	.72
Nagelkerke R^2	.06			.13			.13		
χ^2 for change in R^2	47.47**			63.09**			5.18*		

*$p < .05$, **$p < .01$.

How did increases in HUDL participation influence academic and professional behaviors?

The third research question asked how increases in the intensity of HUDL participation would influence course grades, attendance rates, and disciplinary actions. It was hypothesized that, when the sample is restricted to HUDL students only, increased participation in the HUDL would be associated with increased attendance rates, decreased disciplinary actions, and increased core course grades. To test this hypothesis, three separate hierarchical multiple regression models were conducted. Across all three models, gender and ethnicity (dummy coded, with Hispanic as the reference category) were entered in the first step, to remove the effect of these covariates. Next, eighth-grade levels of the outcomes were added. Finally, a variable representing the number of debate tournament rounds the student participated in was included.

2009–2010 Core Course Grades

Table 9 illustrates the regression model predicting 2009–2010 core course grades for HUDL participants. *R* was significantly different from zero at the end of each step. After step three, with all covariates and predictors in the equation, $R^2 = .50$, F_{inc} (1, 616) = 24.37, $p < .01$, indicating that nearly half of the variance in (log of) 2009–2010 core course grades can be explained by (log of) eighth-grade core course grades and the number of rounds participated in. Moreover, the addition of the round participation variable to the two covariates and eighth-grade course grades, resulted in a significant increase in the amount of variance explained in (log of) 2009–2010 core course grades. Controlling for the other predictors, the number of rounds HUDL students participated in was positively associated with (log of) 2009–2010 core course grades.

2009–2010 Attendance Rates

As illustrated in **Table 10**, the results of the hierarchical multiple regression predicting 2009–2010 attendance rates revealed that gender, eighth-grade attendance and intensity of participation (number of rounds participated in) reliably accounted for over one third of the variance in 2009–2010 attendance rates. Of particular interest, after controlling for the two covariates (ethnicity and gender) and initial level (eighth-grade attendance rate), the number of rounds a student participated in resulted in a small, but significant increase in R^2.

Table 9. Hierarchical Multiple Regression Predicting 2009–2010 Core Course Grades in the HUDL Sample

	Step 1				Step 2				Step 3			
	B	*SE B*	*β*	sr_i^2	*B*	*SE B*	*β*	sr_i^2	*B*	*SE B*	*β*	sr_i^2
Ethnicity (vs. Hispanic)												
Asian or Pacific Islander	.155	.043	.143**	.021	.022	.033	.020	.001	.027	.032	.025	.001
African American	-.032	.017	-.078	.006	-.017	.013	-.042	.003	-.017	.012	-.041	.003
White	.102	.028	.148**	.021	.024	.021	.035	.002	.027	.021	.039	.003
Gender	-.035	.016	-.086*	.008	-.008	.012	-.020	.001	-.015	.012	-.038	.003
8th Grade Core Course Grades					.608	.027	.675**	.448	.598	.027	.663**	.448
Round Participation									.003	.001	.142**	.038
R^2	.06				.48				.50			
F for change in R^2	10.22**				501.15**				24.37**			

*$p < .05$, **$p < .01$.

Table 10. Hierarchical Linear Regression Predicting 2009–2010 Attendance Rates in the HUDL Sample

	Step 1				Step 2				Step 3			
	B	*SE B*	*β*	sr_i^2	*B*	*SE B*	*β*	sr_i^2	*B*	*SE B*	*β*	sr_i^2
Ethnicity (vs. Hispanic)												
Asian or Pacific Islander	.072	.051	.055	.003	.037	.043	.028	.001	.040	.043	.030	.001
African American	-.068	.020	-.135**	.017	-.025	.017	-.050	.003	-.025	.017	-.049	.003
White	-.025	.033	-.030	.001	.010	.028	.012	< .001	.011	.027	.019	< .001
Gender	.050	.019	.102**	.011	.036	.016	.074*	.008	.037	.016	.064*	.006
8th Grade Attendance					.412	.024	.555**	.310	.408	.024	.550**	.307
Round Participation									.002	.001	.086**	.011
R^2	.03				.33				.34			
F for change in R^2	5.58**				292.93**				7.19**			

*$p < .05$, **$p < .01$.

2009–2010 Disciplinary Actions

Table 11 presents the results from a hierarchical logistic regression to predict 2009–2010 disciplinary actions among HUDL participants. Nagelkerke's *R* was significantly different from zero at the end of each step. A test of the full model with all covariates and predictors against a constant-only model was statistically significant, χ^2 (6, *N*=663) = 60.48, $p < .01$, suggesting that overall, the predictors reliably distinguished between students who received no disciplinary actions in 2009–2010 and those who received one or more. Additionally, a comparison of the model with all predictors except round participation against the full model with all variables included indicates that the addition of the round participation variable to the equation results in a significant increment in the model's ability to distinguish between the two groups. Overall, classification was not impressive. On the basis of gender and ethnicity alone, correction classification rates were 100 percent for students with no disciplinary actions and zero percent for students with one or more disciplinary action; the overall correction classification rate was 82.1 percent. The addition of eighth-grade disciplinary actions resulted in identical correction classification rates as step one. The improvement to 81.1 percent with the addition of round participation reflected success rates of 97.5 percent and 5.0 percent for the two groups, respectively.

Interpretations of individual variables suggest that African American students were 80 percent more likely to receive a disciplinary action in 2009–2010. Additionally, students who received one or more disciplinary actions in eighth grade were 33 times more likely to receive one or more in 2009–2010. Finally, as round participation increases, the odds of receiving one or more disciplinary actions in 2009–2010 decreased by three percent.

Table 11. Parameter Estimates for Logistic Regression on Disciplinary Actions in HUDL Sample

	Block 1			Block 2			Block 3		
	B	*Wald*	*Odds Ratio*	*B*	*Wald*	*Odds Ratio*	*B*	*Wald*	*Odds Ratio*
Ethnicity (vs. Hispanic)									
Asian or Pacific Islander	-1.32	1.64	.27	-1.15	1.22	.32	-1.22	1.36	.30
African American	.73	11.72**	2.07	.56	7.27**	1.81	.59	6.99**	1.80
White	-.45	.98	.64	-.38	.66	.69	-.40	.73	.67
Gender	.22	1.16	1.25	.19	.75	1.20	.24	1.26	1.27
8th Grade Disciplinary Actions				1.29	35.13**	3.64	1.26	33.01**	3.53
HUDL Participation							-2.04	4.98*	.97
Nagelkerke R^2	.05			.13			.14		
χ^2 for change in R^2	20.74**			34.21**			5.53*		

*$p < .05$, **$p < .01$.

Discussion

The current program evaluation resulted in three main findings: (a) higher performing students may be more likely to participate in competitive policy debate; (b) after accounting for this potential selection bias, HUDL participants were more likely to have higher attendance rates, higher core course grades, and fewer disciplinary incidents than those who did not participate in debate; (c) intensity of participation in debate activities has an influence on these associations, such that students who participated in more rounds of debate had higher attendance rates, higher core course grades, and fewer disciplinary actions than those students with only marginal round participation.

The findings from the current study are consistent with Mezuk's (2009) results. Namely, as in the Mezuk study, the current report suggests that competitive debate may preferentially attract students who

are more academically oriented. In the current comparison between HUDL participants and a random sample of HISD students, it should be noted that the mean differences in eighth-grade core course grades, while significant, were not necessarily substantial, and may be the product of the large sample sizes included in the study. Similarly, the finding that participation in debate is associated with higher attendance rates, higher core course grades, and fewer disciplinary actions is also consistent with the Mezuk study. As in that study, given the significance of these findings even after accounting for eighth-grade levels of the indicators suggests the possibility that debate participation may have an independent effect on the outcomes.

These findings should be interpreted cautiously, given potential study limitations. First, while eighth-grade levels of the outcomes were controlled for in the regression analyses, there are most likely other influential factors that were omitted from the models. Second, although all of the findings were significant, the addition of debate participation into the models only added a relatively small proportion of variance explained, above and beyond the control variables. The significance of the findings may have also been due, in part, to the large sample. Despite these limitations, the results from this study provide evidence that participation in the HUDL has a number of positive effects on both academic and professional outcomes for students.

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