
2014-15 Urban Debate League MPS Evaluation

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September 2015

Table of Contents

EXECUTIVE SUMMARY	1
INTRODUCTION	3
URBAN DEBATE LEAGUE.....	3
EVALUATION STUDY OVERVIEW	3
PARTICIPANTS.....	4
METHODOLOGY.....	5
STUDENT FOCUS GROUPS	6
RESULTS	7
GROWTH MODELING.....	7
FOCUS GROUPS	8
DISCUSSION	11
RECOMMENDATIONS.....	12
CITATIONS/REFERENCES	13

List of Tables

TABLE 1: PARTICIPANTS	4
TABLE 2: DEMOGRAPHICS OF PARTICIPANTS	Error! Bookmark not defined.
TABLE 3: RELATIVE FIT STATISTICS FOR THE BASELINE, PARTICIPATION, AND DOSAGE MCA MATH COVARIATE ADJUSTMENT GROWTH MODELS	7
TABLE 4: RELATIVE FIT STATISTICS FOR THE BASELINE, PARTICIPATION, AND DOSAGE MCA MATH COVARIATE ADJUSTMENT GROWTH MODELS	7

Executive Summary

Urban Debate League (UDL) is an out-of-school time activity that is integrated into the middle and high schools of Minneapolis Public Schools. A total of 438 students participated across six high schools and 13 middle schools within the district during the 2014-15 school year. Spanish and Somali debates were new to the program this year. A mixed methods approach, using growth modeling and conducting focus groups, was used to evaluate the impact of UDL on participating students' academic success. The evaluation found that UDL has potential to be a positive addition to MPS schools out-of-school time offerings. The students who participated clearly benefited from doing so, both academically and in non-cognitive areas. Quantitative analysis suggests that participating students in UDL gained approximately 14% growth over the year, or 4.4 points above and beyond what they were expected to reach on the MCA Reading test. Students also showed increases in MCA Mathematics scores but this measure was connected to program participation dosage; for example, a student who participated in six rounds of UDL had a math score that was 1 point higher, on average, than a similar student who did not participate in UDL. Additionally, students had small increases in percent attendance but it was also connected to program participation dosage; for example, a student who participated in six rounds of UDL attended 6% more days of school, on average, than a similar student who did not participate in UDL. Qualitative analysis implied that students enjoyed participating in debate and the opportunities it provides to expand their worldview and how they approach information while meeting new people and enhancing their academic skills. The challenge of competing in the tournaments also appealed to many students. There is clear evidence that students are increasing their opportunities for positive development because the potential number of meaningful relationships and contexts for growth to occur increases considerably from participation in a structured out-of-school time activity such as debate.

2014-15 Urban Debate League MPS Evaluation

Introduction

The Minneapolis Public Schools' (MPS) Research, Evaluation and Assessment (REA) Department was contracted to conduct an evaluation of the 2014-15 Urban Debate League (UDL) program in MPS schools to determine the impact of the program on student achievement. REA staff, with input from the Minnesota UDL staff, developed an evaluation plan that included evaluation questions and data collection methods. A mixed-methods approach, utilizing both quantitative growth modeling and qualitative focus groups, was determined to be the most salient. The purpose of the MPS UDL evaluation was to:

- Answer questions about the program in MPS;
- Increase contextual understanding of the program; and
- Explore the effectiveness of improving the outcomes of students.

This report provides a summary of the evaluation for the 2014-15 school year.

Urban Debate league

The Minnesota UDL serves to empower students to become engaged learners, critical thinkers, and active citizens through competitive academic debate. Minnesota UDL currently serves more than 750 students at 39 partner schools and has seen sustained growth in student participation since its inception in 2004. Currently 100% of Minnesota UDL participants graduate high school on-time, and 99% are accepted to college (Minnesota Urban Debate League, 2015).

The Minnesota UDL is affiliated with the National Association for Urban Debate Leagues (NAUDL). According to the NADUL website, "Debate is an academic sport that builds reading, research, communication and critical thinking skills. Each year high school debaters throughout the country debate a single complex policy question, or resolution, for an entire year. In 2014-15, students are debating whether the federal government whether the federal government should substantially increase its non-military exploration and/or development of the Earth's oceans" (National Association for Urban Debate Leagues, 2015).

Evaluation Study Overview

The following study evaluated the quality of the UDL Program in MPS. This study employed a mixed methods approach, utilizing both quantitative growth modeling and qualitative focus groups to determine outcomes for students participating in the programs. Evaluation questions included:

- To what extent is participation in the Minnesota Urban Debate League raising achievement for diverse students?
- To what extent is participation in the Minnesota Urban Debate League improving academic growth?

- To what extent is the Minnesota Urban Debate League developing across school relationships and reducing racial isolation?
- To what extent is the Minnesota Urban Debate League empowering students (engaging, exciting, and connecting)?

This section contains a description of the study participants and how the researchers collected and analyzed the data.

Participants

During the 2014-15 school year, 438 students participated in the UDL program across six high schools and 15 middle schools; however, only 84% (n = 366) of the UDL participants could be matched to their MPS student ID number for summary data based on their name and school provided by the organization. All data summaries and analyses below only include the 366 participants who could be associated with an ID number.

Table 1 displays the breakdown of number of students participating in UDL and the average number of debate rounds (also referred to as dosage). The number of students participating in UDL varied by school; a total of 71 students participated at Clara Barton, while two students participated at Edison.

Table 1: Participants and dosage.

School Type	School	Number of Students	Average Number of Rounds (Dosage)
Middle	Andersen	13	8.8
	Anne Sullivan	16	2.7
	Anshinabe	1	3.0
	Anthony	12	7.8
	Anwatin	14	3.2
	Clara Barton	71	10.9
	Folwell	12	5.1
	Green Central	6	9.0
	Lake Nokomis - Keewaydin	12	7.6
	Lake Harriet	35	8.7
	Nellie Stone Johnson	7	7.7
	Northeast	18	8.3
	Ramsey	8	6.5
	Sanford	26	10.8
	Seward	48	9.3
High	North	5	14.0
	Henry	4	14.0
	Roosevelt	15	16.8
	South	19	16.5
	Edison	2	7.0
	Washburn	27	8.7

Additionally there were three students who, based on their end of year data, attended a school that did not have UDL: Loring-Nicollet, Online, and Southwest. These students likely either transferred schools mid-year or participated at a school that did have UDL.

The dosage varied by schools and school type; middle school students had fewer opportunities to participate in tournaments and practices varied from school to school, while high school students had many more opportunities for debate participation; the exact number of opportunities varied by high school.

For this study, the authors were interested in the effects of UDL participation on growth in mathematics and reading. The test scores for the analyses were from the Minnesota Comprehensive Assessments (MCAs). The MCAs are the state tests that help districts measure student progress toward Minnesota's academic standards and meet the requirements of the Elementary and Secondary Education Act (Minnesota Department of Education, 2014). Students take one test in each subject. MCA scores are observed as three digit numbers. These scores are made up of two parts: grade-level and scale score. For example, the score of 750 can be broken down into the grade (7th), and the scale score (50). Scale scores range from 1 to 99. A score of 50 indicates that a student meets the proficiency standard in 7th grade. Scale scores can be broken down into four categories: does not meet proficiency (1 – 39), partial proficiency (40 – 49), meets proficiency (50 – 59), and exceeds proficiency (60 – 99).

To analyze this information using a covariate adjustment growth model, student test scores are needed for the 2013-14 and 2014-15 school years. Of the 366 students participating in UDL, 249 of the students had mathematics test scores for both years and 251 of the students had reading test scores both years. In addition to the 251 UDL participants who have MCA data for both years, over 10,000 students not participating in UDL were used in the analysis. Students participating in UDL in 2014-15 averaged a 55.3 scale score on the math MCA and a 61.2 on the reading MCA. In math, the average UDL student was meeting proficiency. In reading, the average UDL student exceeds proficiency.

Methodology

As previously mentioned, a covariate adjustment growth model was used to analyze the data. This model included several predictors to improve the quality of the model. In addition to prior year test score, student grade-level, free/reduced-price lunch eligibility status (FRL), English learner status (EL), special education status, racial status, school, and UDL participation were included in the model. The reference group for these analyses is 4th grade, White, non-FRL, non-EL, and not receiving special education services. This means if we had only information on prior year test score in the model with the demographic covariates, the expected score would be referenced for a person who belonged to all of the reference groups.

Three different covariate adjustment models were fit: 1) baseline model, which includes all of the aforementioned predictors, but does not include the UDL participation variable; 2) participation model, which includes all of the predictors as well as a dichotomous UDL participation variable; and 3) dosage model, which includes all of the predictors and a UDL dosage variable (number of rounds) instead of the dichotomous participation variable.

Models were evaluated using two model fit indices: Akaike's information criterion (AIC; Akaike, 1974) and Bayesian information criterion (BIC; Schwarz, 1978). These values indicate which models are the best fitting, where smaller values indicate better model fit. Better fitting models are then considered models that explain the data the best. When AIC and BIC criteria agree on the best model, this provides reassurance on the robustness on the model choice (Kuha, 2004). The likelihoods from AIC and BIC can be transformed so that they are interpreted as probabilities. These transformations are useful as the values that weight the evidence in favor of a model as being the best model in the set.

Student Focus Groups

Focus groups allow researchers to gather information about a range of ideas and feelings that people have about something in an informal setting (Krueger & Casey, 2009). Focus Groups were held with approximately 40 students at five schools that had teams participating in UDL during the 2014-15 school year, and were conducted in groups of 7-9. All focus groups were audio taped and field notes were generated by the MPS staff who conducted the focus groups. Audio tapes and field notes were analyzed to generate themes across groups.

Results

Growth Modeling

Table 3 displays the AIC and BIC for the three models fit to the math datasets. Models with the lowest AIC and BIC values are considered to be better fitting models. The AIC and BIC values both favor the dosage model. The dosage model is favored 89% of the time by the AIC relative fit statistic and 74% of the time by the BIC fit statistic. This means that the dosage effect of UDL is explaining changes in expected MCA math scores more than we can attribute to chance alone and as participation in UDL increases, students are seeing an additional change in MCA math scores.

Table 2: Relative fit statistics for the baseline, participation, and dosage MCA math covariate adjustment growth models.

Model	AIC	w_{AIC}	BIC	w_{BIC}
Baseline	72884	0.01	73356	0.17
Participation	72878	0.11	73357	0.09
Dosage	72874	0.89	73353	0.74

The dosage model fit to the data estimates the effect of UDL participation on MCA math scores. The effect of UDL dosage was equal to 0.18, with a standard error of 0.05 and a p -value of less than 0.001. The UDL dosage effect of 0.18 suggests that on average, for every round participated in UDL, students are seeing 0.18 point increase on MCA math scores compared to similar students who are not participating in UDL. For example, a student who participates in six rounds of UDL will have a math score that is 1 point higher, on average, than a similar student who does not participate in UDL. While the effect of UDL dosage was statistically significant, it is important to note that the effect size for this model compared to the baseline was very small ($f^2 = 0.001$), meaning that only a small amount of variance in MCA math scores was explained by UDL participation.

Table 4 displays the AIC and BIC for the three models fit to the reading datasets. The AIC and BIC values both favor the participation model. The participation model is favored 88% of the time by both the AIC and BIC relative fit statistics. This means that the participation effect of UDL is explaining changes in expected reading scores more than we can attribute to chance alone and students are seeing an additional change in MCA reading scores by participating in UDL over not participating.

Table 3: Relative fit statistics for the baseline, participation, and dosage MCA reading covariate adjustment growth models.

Model	AIC	w_{AIC}	BIC	w_{BIC}
Baseline	77374	<0.01	77846	<0.01
Participation	77330	0.88	77809	0.88
Dosage	77334	0.12	77813	0.12

The participation model fit to the data estimates the effect of UDL participation on MCA reading scores. The effect of participating in UDL was equal to 4.36, with a standard error of 0.64 and a *p*-value of less than 0.0001. The UDL participation effect of 4.36 suggests that, on average, students participating in UDL are seeing a 4.36 point increase on MCA reading scores compared to similar students who are not participating in UDL. However, similar to that math effect, the effect size for this model compared to the baseline model was very small ($f^2 = 0.004$), meaning that only a small amount of variance in MCA reading scores was explained by UDL participation.

Table 5 displays the AIC and BIC for the three models fit to the attendance datasets. The AIC and BIC values both favor the participation model. The dosage model is favored 63% of the time by the AIC relative fit statistic and 53% of the time by the BIC fit statistic. This means that the participation effect of UDL is explaining changes in expected percent attendance more than we can attribute to chance alone and students are seeing an additional change in percent attendance by participating in UDL over not participating.

Table 5: Relative fit statistics for the baseline, participation, and dosage MCA attendance covariate adjustment growth models.

Model	AIC	w_{AIC}	BIC	w_{BIC}
Baseline	-73803	<0.01	-72871	0.15
Participation	-73814	0.37	-72873	0.31
Dosage	-73815	0.63	-72874	0.53

The dosage model fit to the data estimates the effect of UDL participation on percent attendance during the school day. The effect of UDL dosage was equal to 0.01, with a standard error of less than 0.001 and a *p*-value of less than 0.001. The UDL dosage effect of 0.01 suggests that on average, for every round participated in UDL, students are seeing 1% increase in percent attendance during the school day compared to similar students who are not participating in UDL. For example, a student who participates in six rounds of UDL will have a 6% increase in percent attendance, on average, than a similar student who does not participate in UDL. While the effect of UDL dosage was statistically significant, it is important to note that the effect size for this model compared to the baseline was very small ($f^2 = 0.0003$), meaning that only a small amount of variance in percent attendance was explained by UDL participation.

Focus Groups

Students reported that they initially joined their school’s debate group due to outside influences that piqued their interest, but had little understanding of or commitment to the group. Once they were introduced to the program, they saw personal and academic benefits, had fun, made friends, and eventually became highly dedicated to and passionate about debate.

When asked why they decided to participate in UDL, most students identified something that persuaded them to come to an initial meeting – a friend, parent, or teacher’s suggestion; the social aspect of the after school program; the group’s reputation in the school; or for many, simply that

pizza was offered at the first meeting. Some were interested in the group to “*learn something new,*” improve their language skills, or accomplish future academic or career goals. Participants then discussed the things they liked about debate that compelled them to stay.

Participants found debate to be a rich learning opportunity that taught them important and applicable skills and contributed to their personal growth. In all focus groups, students discussed how participating in debate expanded their worldview and how they approach information. One of the most common comments was that debate allowed them to look at information critically, see issues from multiple perspectives, and see things from a global perspective.

They also appreciated the topical information they gained, noting that, while the year’s current debate topic wasn’t necessarily something they originally had a personal interest in, they found it interesting and appreciated that the information gained may be useful in the future.

“It really helps you with a lot of necessary skills like speaking in public and talking skills, just being able to see both sides of an argument. Instead of just using your opinion to argue, you use two different sides, and you look at the other side, and think what’s going through their head, and try to come to a conclusion.”

“P1: I like that it introduces us to stuff that’s happening in the world so we’re not just knowing about the United States in general, but global.”

P2: I’d like to add onto that. Because there’s lots of problems in the world. Not just focusing on main problems here. So if we get to argue about problems outside of the U.S., maybe that could lead us to thinking more about, maybe later on growing up and doing something about it.”

Other things that students enjoyed about debate were the social aspect, being with friends, a community, or people with a similar mindset. Many students enjoyed the argumentative and competitive aspects of debate, and strong coaches were a large factor in students’ decision to continue participating in the program. Students from a Spanish language debate group noted their desire to improve their language skills as a primary factor in joining the group. They did in fact report improvements in their language skills as well as relationships with their families and a stronger connection to their culture and traditions.

Focus group participants’ responses to a prompt about how they changed as a result of being in UDL mirrored what they enjoyed about participating and why they were involved in UDL. Many students felt that debate helped them be more outgoing, confident, assertive, and outspoken. They also gained academic skills, particularly reading, writing, note-taking, presentation, and research skills. Some talked about how they not only gained vocabulary and reading speed, but were better able to skim, interpret, and think critically about their reading. One student summarized this in his learning process:

“I follow along, so to say I read faster, so then I follow through and I take notes about what I’m reading. And I also ask questions of myself when I’m doing the reading. I take notes and I do the questions so I can ask the speaker what their answer is to the question.”

They also talked about how information and skills learned through debate help them grasp class material quicker and some students talked about how it allowed them to modify school assignments and projects into work that they found more meaningful, interesting, and enjoyable. They were also better able to articulate positions, ideas, or information.

Many students found strong friendships through debate and were able to connect to students in their own school or others. Several students talked about how they developed bonds with their debate partners. In general, debate helped them with relationship skills, including listening to others, negotiation, respect, and sportsmanship.

Focus group participants were eager to discuss how debate helped them expand their “worldview,” helping them see different sides of an issue, think critically about issues, and seek evidence when learning about a topic or making decisions. They talked about how it influenced them to think about solutions to problems and take action on issues that were important to them. As one student noted, “the timer stops and it doesn’t end there.”

“I’m not thinking about me, or the people around me. I’m thinking globally, politically, economically... I’m thinking about how it will affect other people.”

“The knowledge you learn makes you a wiser person. Now you have a point of view of looking at different things in life, like this project of aquaculture. Now you know about it, so if you do care you’ll probably do more. You’ll actually think about it: How would I change it? Overall it just makes you a wiser person.”

“It makes it easier when I can form an opinion on something based on what I think, because now when I hear about some of those issues that there are two sides to I don’t always just go with what I’m told or what the person who is telling me about it believes. I want to think about the whole thing and what the positives and negatives to both sides are. And you get into that mindset, and now whenever I hear that about something, I don’t just think, ‘Oh, well my parents said that.’ Well, what are the good and bad things, what about that, and which one do I think is better?”

Members of one high school group talked extensively about how participating in debate allowed them to take action on issues that concerned them in their own school. It both allowed them to identify practices that they saw as problematic in their own school through expanding how they see the world and look at issues, and gave them the confidence and skills to take action where they felt it was necessary.

“I think something that also comes from looking at the world more critically because of debate is that you’re more willing to speak up, when you see these bad things happening. That definitely happens in [our class] when bad things are happening. Or, just on a large scale, I think it’s a lot easier to call people out, and just bring issues to light when you’re in debate.”

“We felt the need to call out things that were bad that were happening in our [class]. And defend my friend. [He] was being attacked almost in that class... and we felt the need to actually stand up for him and tell everyone that this was a problem that [he] was feeling this way. And I don’t know if I would’ve felt that assertive before.”

One of the biggest recommendations for improving the program was to allow more opportunities, or time, for dedicated debaters to invest more in the activity and develop their skills and knowledge base. Some groups suggested more time for the group to meet or to focus more of meeting time on working specifically on content and strategies rather than more abstract games. Several groups suggested that debate be more integrated into school – having a special class for debate or allowing elective credit for debate. Students felt that debate is a serious academic activity and deserves recognition as such. Integration into school would give them more time for debate work, but grant legitimacy; students felt there would be less tension between ‘debate work’ and ‘schoolwork.’ One group expressed some tension that debate is viewed as requiring serious academic skills and capacity (GPA requirement, expectation that debaters are ‘good students’) but is still considered a sport or extracurricular activity and as such, less important than school.

All groups also noted issues with debate meets and “judges.” Students mentioned that judges misunderstood, misinterpreted, or were unfamiliar with rules, and requested better selection and/or training for judges. They recommended that all judges have familiarity with the debate process, topic, and rules.

Discussion

Students in the focus groups visibly enjoyed their participation in UDL this year and the opportunities it provided to develop their personal and academic identities. Focus group participants were excited to talk about the positive impact debate had on their lives and identities, both personally and academically. These students displayed their dedication to knowledge and information as well as contributions to a broader social environment and discussed the ways debate has improved their confidence and performance in school. Students in focus groups provided concrete examples of how their self-concept as learners was reinforced and/or positively changed. Debate programming built student background knowledge, provided opportunities for academic risk taking, and was an additional venue for students to experience success. The academic benefits of participation are clear and supported by evidence.

Quantitative analysis suggests that UDL participation does have an effect on academic growth as measured by the MCA math and reading test. In math, for every UDL round that a student participates in, they experience a 0.18 scale score point increase on average; so, for example, an average participant at Nellie Stone Johnson who participates in 7.7 rounds would experience a 1.39 scale score increase on their math MCAs. In reading, on average, students participating in UDL are seeing a 4.36 point increase on MCA reading scores compared to similar students who are not participating in UDL. These effects of participation on reading and math are statistically significant and equates to effect size of less than 0.01. While the effect sizes are very small, a small value should be expected, as the program is a support to current school programming and home life.

There is also clear evidence that when students engage in out-of-school activities they increase their opportunities for positive development because the potential number of meaningful relationships and contexts for growth to occur increases considerably. There also appears to be positive interracial contact of students across schools during debate tournaments.

Recommendations

Findings from this year's evaluation mirror those from the 2013-14 evaluation of this program. Students enjoyed the personal development gained through debate, especially in confidence and academic performance, and the social aspect of participating in the program. This year there was a much heavier emphasis on expansion of the way participants perceive and interact in the world and a consequent dedication to having a positive influence in the world.

Recommendations were also similar, but varied slightly. As with last year, the quality of judges at debate meets and tournaments was a concern. Not only were these concerns prominent, but consistent across all groups. Due to the consistency in problematic experiences with debate judges, a serious look should be taken at recruitment and training of judges. Students in all focus groups across both years of this evaluation expressed the need for more consistency in rules and judges who are familiar with debate and dedicated to upholding a respectful, fair, and objective debate experience.

This year, there was consensus between focus groups that students wished for more time to dedicate to debate, which did not emerge as a prominent issue last year. Students involved in this program are highly dedicated to debate and wish for more time to do debate work as well as its legitimacy in their school environment. Information gained from these groups suggests that debate has a valuable impact on students' personal and academic development that warrants this recognition.

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