

Tutoring Support and Student Voice in Middle School

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Abstract

This article examines the persistent problem of student literacy, the range of tutoring solutions, and implications for peer teaching in cooperative learning teams. Possible school reforms that reflect practices in other countries with high student test scores and peer norms in support of tutoring are described. An online poll was completed by 190 adolescents to share perceptions about tutoring at their middle school. Given the powerful impact of peers on adolescent socialization, it was not surprising that findings showed students who needed tutoring most denied their academic problem, tried to avoid embarrassment from peers, and did not request assistance. Poll responses revealed absence of a peer norm to motivate engagement in tutoring without sacrifice to personal status. If a lesson or curriculum subject was difficult, the students asked friends for help more often than they asked teachers. Analysis of gender differences showed that if students told friends they planned to request tutoring, females were more likely to give encouragement than males. Female students also showed greater willingness than males to volunteer as tutors for assisting learning disabled classmates, English as second language learners, and peers in their cooperative learning groups. Results of student voice as expressed in the online Tutoring Poll contributed to the school continuous improvement plan. Tutoring recommendations for school districts to consider are explained.

Key Words: student voice, tutoring, middle school, online polling, school continuous improvement plan, school districts, cooperative learning, peer tutors

Introduction

This article examines the commonly ignored need for student tutoring, effects of tutoring on academic performance, and innovative tutoring practices. The review of literature about tutoring includes examination of national academic deficits and international comparisons of student achievement. A quantitative study is documented that used an online Tutoring Poll to invite the expression of student voice as input to their middle school's continuous improvement plan. Kinds of support peers, teachers, and parents can provide are also explored.

Scope of the Problem

The National Assessment of Educational Progress (NAEP, 2019), known as the Nation's Report Card, is the only assessment that measures how students in Grades 4, 8, and 12 in public schools throughout the United States perform in various subjects. This Congressionally mandated test program is administered every two years. Due to the impact of the COVID-19 pandemic on school operations, the NAEP assessment has been postponed until 2022 (Woodworth, 2020). The most recent results in 2019 for reading showed that only 35% of fourth graders scored at or above proficient level; the scores of eighth graders were also disappointing with just 34% at or above proficient; and 37% of twelfth graders scored at or above proficient level. These results are helping to inform schools about how to improve the education system in our country.

Vocabulary studies in middle school have consistently determined higher order thinking requires a sufficient understanding of word meanings (Greene & Coxhead, 2015). When students with reading deficits described why reading was difficult, they frequently blamed the words. Teachers across all grades have reported many students are inclined to resist assignments that require reading. Adolescents consider texting, videos, graphics, podcasts, tweets, and internet searches preferable ways to find information rather than reading articles or books or listening to direct instruction from the teacher (Diallo, 2020; Wexler, 2018; Willingham, 2017).

Kim and Maloney (2020) reported that many secondary students who lack literacy skills do not receive intensive tutoring. The problem is compounded by social promotion practices that allow graduation without reading competence. The national average of the high school graduation rates is 86%, the highest ever recorded (National Center for Education Statistics, 2021). Nevertheless, Sanabria et al. (2020) documented that college placement test scores reveal from 40% to 60% of college freshmen have required remediation courses in reading, English, and/or mathematics.

The misalignment between high school expectations and entry level standards for college causes difficulty for students, families, and college faculty (Melguizo & Ngo, 2020). Rey (2019), a community college remedial reading teacher, observed many students arrive with a negative attitude about taking a remedial course, often maintaining that the reading placement tests must be inaccurate because they do not match the excellent grades received from high school classes. These students often feel stigmatized and believe that they should not have to pay for attending remedial instruction. According to Grubbs (2020), there is widespread agreement that tutoring should become common in secondary education to reduce the need for remediation in college.

Tutoring Strategies

Cross-Age Helpers

In the 1960s, President John Kennedy called on educators to reduce the number of school dropouts because emerging automation would jeopardize their prospects for employment. In response to the President's appeal, peer tutoring became a focus in many cities. For example, a large scale effort called Mobilization for Youth in New York City was meant to improve elementary student reading in low-income areas. High school students were recruited as volunteer tutors. Riessman (1965), a consultant on the project, observed that younger children expressed satisfaction with being tutored but did not seem to be learning much. In contrast, high school tutors were enthused about their leadership status and reported improved self-esteem. These anecdotal reports were only subjective estimates of peer tutoring effects, so research was conducted on changes in achievement scores (Cloward, 1976). Results revealed that tutors made striking gains, much larger than the students they were tutoring. Over a period of five months, younger students gained an average of six months in reading performance while the older students who tutored them gained 3.4 years on achievement tests.

The unforeseen academic benefits for tutors were welcome. However, another strategy was needed to ensure that the tutored students would also progress. A team at University of Michigan worked with the Detroit Public Schools to develop and implement a cross-age helper program. Tutors learned ways to cooperate with a younger child's classroom teacher and help the student directly. Generally, the self-impression of tutors as being an "expert" was sustained if s/he was at least two grades ahead of the person tutored (Lippitt & Lippitt, 1970, 1975). The cross-age helper program was the most popular peer teaching strategy throughout the 1970s with typical results of higher achievement and increased self-confidence for both parties.

Emergence of Cooperative Learning

In the 1980s cooperative learning became and remains nationally accepted as the most common comprehensive paradigm for instruction. Several conditions motivated the shift. First, businesses declared that for them to remain competitive in a global marketplace, newcomers entering the workforce would be required to possess interdependent teamwork skills in addition to traditional independent skills. This meant that students would need to practice working in groups to solve problems together. Second, a belief that everyone should rely on the adult teacher as a single source of instruction was no longer reasonable because of Internet access and student willingness to become sources of learning for peers. Students in cooperative learning classrooms are expected to tutor teammates as needed (Johnson & Johnson, 2017).

Johnson et al. (2014) have studied cooperative learning to determine how adolescent social relationships impact student behavior and achievement. Their meta-analysis including 148 studies compared relative effectiveness of cooperative, competitive, and individualistic goal structures within classrooms. Collectively, these studies involved 17,000 adolescents, ages 12–15, from 11 countries. Results found students in classes with cooperative learning goals had higher scores in problem solving, reasoning, and critical thinking than students attending classes that emphasized competitive or individualistic learning. In cooperative classrooms students reported greater peer support and willingness to tutor one another. When teachers arrange for cooperative learning, their academic goals can be achieved while prominent social goals of students for peer interaction are also met.

In the social context of cooperative learning, students share knowledge with teammates and provide tutoring for those who need assistance. In a systematic review and meta-analysis of literacy studies regarding secondary students from low-income backgrounds, Dietrichson et al. (2017) determined that the most effective formats to increase academic gains were cooperative learning and individual tutoring. Similarly, Baye et al. (2019) reviewed 69 reading studies in Europe and the United States to evaluate the outcomes of 51 programs using widely accepted measures of reading to assess progress. Results showed that struggling students gained most from involvement with socially and cognitively engaging instruction in cooperative learning groups; students benefited less from taking additional reading classes.

Personalized Support Online

Salman Khan (2020) is responsible for a tutoring revolution that benefits students from around the world via his online nonprofit Khan Academy. The Khan Academy website provides access to 4,000 free videos; presentations

are about 10 minutes long. Students can replay videos and retake quiz items repeatedly until they achieve comprehension and without suffering embarrassment from their peers (Frank, 2020; Koenka & Anderman, 2019). The most frequent requests for help are to meet state mathematics standards; additional resources include curriculum about reading and language arts, science, computing, economics, and life skills. The academy also provides teachers with real-time feedback on the progress of students to whom they have assigned Khan lessons for homework. The premise is students work at their own pace to reduce their learning gaps and master the basic concepts. Khan Academy has been translated into dozens of languages, and 100 million people annually use the platform worldwide.

Online Peer Tutoring

Sugata Mitra, professor of educational technology from Newcastle University in England, received the Technology Entertainment Design (TED) annual award that included a cash prize of \$1 million. Mitra (2015) was recognized for experiments with children he carried out in resource-scarce environments of India, Asia, and Africa that had a shortage of teachers, schools, and computers. His theoretical strategy for teaching, called *minimally invasive education*, asserted that elementary school-age children are capable of peer tutoring about computer tasks without getting direction or supervision from adults. This approach requires discovery and sharing so working in groups is necessary. Children teach one another and regulate the sharing process. The ability to become computer literate within a short time appears to be independent of formal education, economic background, gender, ability to read, or intelligence (Mitra, 2017; Vega et al., 2020).

Mitra (2017) explains that minimally invasive learners are inclined to divide themselves into “knows” and “know nots”; however, there is recognition that peers who know will share their knowledge in return for friendship. The more mature learners, usually early adolescent females, commonly insist on proceeding in a civil way. Consequently, everyone enjoys the satisfaction of a social experience and chance to learn more rapidly because they imitate one another, urge each other forward, and pool their insights. When a group no longer produces breakthroughs, minimal intervention is welcome from an online adult teacher who introduces a new skill for students to rely on for generating discoveries on their own. Studies by Mitra (2015) found that parents from the involved communities believe this tutoring strategy increases literacy (85%), provides opportunities for using computers (80%), improves social cohesion (79%), develops community confidence and pride (85%), and improves student academic performance (79%).

These outcomes support the potential benefits of exposure to the internet and capability of students to accelerate organization of knowledge by uniting their efforts. Educators need to present tasks that support opportunities for students to acquire and practice collaboration skills. In this approach the creation of curriculum content is no longer considered as important as the provision of infrastructure and access to the world of information. Minimally invasive education is a self-structured system that assumes students can construct knowledge on their own. In this paradigm, a teacher stands aside and intervenes only when help is actually needed. This is a departure from the custom of expecting teachers to “make learning happen.” Instead, teachers should be expected to “let learning happen” (Mitra, 2017; Vega et al., 2020).

Benefits of Intensive Tutoring

The practice of afterschool private tutoring by paid adult teachers has resulted in high achievement for some nations. For example, 60 years ago a majority of Koreans were illiterate (Ripley, 2014). In contrast, 15-year-olds from South Korea currently rank seventh internationally on reading and mathematics tests (Exley, 2020). The transformation of South Korea to become an academic superpower has involved intensive tutoring that parents subscribe to for a fee. Students attend public school during the day and “cram schools” in the evening where tutoring takes place. Text messages are sent to parents each time students arrive for tutoring. Twice a month the tutorial teachers phone parents about their child’s performance and provide progress reports.

The Programme for International Student Assessment (PISA) is conducted every three years to evaluate education systems globally, helping nations identify their achievements and needs for improvement (National Center for Education Statistics, 2019). About 600,000 15-year-olds from 78 nations completed the most recent assessment. The most recent results for PISA ranked students from the United States 13th in reading, 37th in mathematics, and 18th in science. The nations ranked highest were mostly from Asia, including China, Singapore, Hong Kong, Macau, Taiwan, Japan, and South Korea. In these countries and increasingly in European nations like Germany and Spain, intensive tutoring is becoming the norm because of a belief in equality—the assumption that most students can reach high standards if provided individual assistance and are willing to work hard (Alegre et al., 2019; Guill et al., 2020). Successful student performance should be seen by school leaders as a necessary condition to remain economically competitive with other nations. PISA nations decided to postpone the 2021 assessment to 2022 to reflect post-COVID difficulties (Organisation for Economic Cooperation and Development, 2020).

Student Voice and School Improvement

A movement called “student voice” has gained international attention over the past decade. The goals of this movement are to (a) describe aspirations of youth, (b) explain their perceptions about the strengths and shortcomings of education, (c) reveal how adolescents believe that their instruction could be improved, and (d) identify ways to ensure educational equity. Three award-winning American school superintendents, Lubelfeld, Polyak, and Caposey (2018) documented their experiences in *Student Voice: From Invisible to Invaluable*. The premise of their book is that student voices have not been heard, and this was a possible reason why middle schools and high schools have failed to innovate to the extent they should to better serve students. They urged administrators to connect with students by finding out their ideas on ways to improve instruction and relevance of curriculum.

A meta-analysis of 49 studies on student voice reported by Gonzalez et al. (2017) confirmed that student voice reveals insights not otherwise available in research framed from the view of administrators or teachers. The studies generally recommended that schools consider ways to shift from the present adult-centric pattern to become more student-centric. Students are stakeholders with the most to gain or lose from innovation to keep American education globally competitive. When the opinions of students and educators are considered together, an intergenerational perspective emerges to more accurately portray school strengths and limitations (Southwick & Charney, 2018; Virtue, 2020).

Method

Instrument Design and Field Test

Strom and Strom designed an online polling system using student voice that would be efficient, anonymous, and allow evidence-based data to promote decision-making for the school continuous improvement plan. Students from several secondary schools were asked to identify conditions of learning that should be the focus of polling. One of the 10 topics generated was tutoring. Students examined the Tutoring Poll draft to judge the relevance of each item, ease of understanding items, and suitability of multiple-choice response options. Based on student feedback, some poll items were modified and re-examined by students. For the Tutoring Poll, the Flesch-Kincaid Readability Grade Level score was 6.2 (Strom et al., 2008).

Following poll development, administration methods and software were field-tested with students at eight underperforming Title I secondary schools that enrolled high proportions of minorities (Strom et al., 2008). These students ($n = 2,575$) completed polling at their school computer lab where they

were each provided password protected entry data for access to the poll and individual code drawn from a random generator. This procedure guaranteed anonymity of students and ensured that no one could vote more than once. Student response rates exceeded 75% at each school. All principals were provided a detailed report including overall results and breakdowns of student responses by grade, age, gender, and race/ethnicity.

Non-parametric chi-square testing was conducted on poll items that allowed for multiple options (Strom et al., 2008). Each response had to be tested because the students could choose more than a single option as their response; therefore, each had a separate data field. The purpose for measurement was to determine whether relationships were dependent or independent between the responses and demographic variables of gender, grade, and race/ethnicity. The same tests were performed between responses and specific schools to detect significant differences between the student perceptions from school to school. Of the student responses on polls, 69% showed a dependent relationship with one or more of the variables. Overall, the school location variable recorded the highest response relationship at 46%; this was followed by gender at 35%, and grade level 23%. Race/ethnicity had the lowest number of significant relationships at 17%. These findings encouraged the conclusion that each local school should be the focus of polling to assess conditions of learning for a particular institution.

In a previous *School Community Journal* article, Strom et al. (2019) described the 10-step process model used for polling secondary students to enable principals to make evidence-based decisions about school improvement. The process begins as principals examine the learningpolls.org website describing 10 polls available for student polling: career exploration, time management, attention and distraction, motivation to learn from the internet, tutoring, peer support, cheating, student frustration, cyberbullying, and school stress. The principal states an interest in using one or more polls for their school improvement plan; this is a community service available at no cost to the school. After poll(s) are chosen and administered, the principal receives feedback including tables showing poll item responses. Polling results can identify strengths of a school as well as concerns that warrant faculty attention for school improvement.

Subjects of the Current Study

The purpose of the current study was to gather opinions of students about tutoring practices at their middle school and differentiating findings by gender. Subjects were seventh and eighth graders from average income families in a suburb of a metropolitan southern city in the United States. The principal selected the reading and language arts program to be the target population for

polling; 254 students were invited by the principal to participate. Involvement was voluntary, not an assignment, and anonymous. The number of students who participated was 190, about 75% of the target group. These respondents, between ages 12 to 14 ($M = 12.94$, $SD = 0.58$), included 104 females (54.7%) and 86 males (45.3%). Racial/ethnic distribution was Asian ($n = 9$, 4.7%), Black ($n = 13$, 6.8%), Hispanic ($n = 25$, 13.2%), Native American ($n = 4$, 2.1%), White ($n = 126$, 66.3%), and Other ($n = 13$, 6.8%).

Principal Invitation and Orientation

The principal sent a letter to all students in the language arts program explaining the need for faculty to find out their views about tutoring and inviting them to complete the online tutoring poll. Two weeks were allowed to finish the poll. Entry passwords were provided for students to go online in the computer lab. The principal's letter also outlined accommodations for English language learners. English fluent students could assist in reading questions or translating. Another letter was sent to teachers explaining the study and urging faculty to encourage student participation.

The Tutoring Poll includes 16 multiple-choice items presented in Table 1. Students were oriented to the poll purpose with this statement: "A common goal for tutoring is to help students gain skills they need to perform well in a course or pass a test. The purpose of this poll is to find out how students at your school feel about tutoring." Orientation included these directions:

For each item, select the answer that shows how you feel; you may select more than one answer. If an answer you want to give is not listed, type it on the line marked "Other." Your responses are anonymous and will be combined with other students from your school.

Table 1. Chi-square Independence Tests by Gender for Tutoring Poll Responses of Seventh and Eighth Graders

Tutoring Poll Items [©]	Over- all (N = 190) %	Female ($n =$ 104) %	Male ($n =$ 86) %	$\chi^2(1)$	p	Cra- mer's V
1. Most students I know who need tutoring						
recognize their need and ask for help	24.7	20.2	30.2	2.55	.11	.12
deny they have a problem with the subject	41.1	41.3	40.7	0.01	.93	.01
feel embarrassed and will not ask for help	55.3	57.7	52.3	0.55	.46	.05
blame their difficulties on poor teachers	45.3	51.0	38.4	3.01	.08	.13
Other	12.1	9.6	15.1	1.34	.25	.08

Table 1, Continued

2. More students would seek tutoring if						
it was more convenient and available	41.6	49.0	32.6	5.26	.02	.17
teachers would offer them this option	26.8	30.8	22.1	1.81	.18	.10
they cared about academic success	66.8	64.4	69.8	0.61	.44	.06
parents were aware that they needed it	38.9	41.3	36.0	0.56	.46	.05
Other	11.6	14.4	8.1	1.82	.18	.10
3. Seeking help from a tutor						
shows that I recognize a need for help	56.8	63.5	48.8	4.10	.04	.15
would embarrass me in front of friends	26.3	26.9	25.6	0.04	.83	.02
reflects my desire to learn and succeed	40.0	41.3	38.4	0.17	.68	.03
helps meet requirements for graduation	45.3	51.0	38.4	3.01	.08	.13
Other	6.3	5.8	7.0	0.12	.73	.03
4. When students fail a class or a test required to graduate, they should						
automatically be assigned a tutor	42.6	44.2	40.7	0.24	.62	.04
take monthly practice tests	34.2	35.6	32.6	0.19	.66	.03
go to summer school	38.9	36.5	41.9	0.56	.45	.05
access a computer program for help	28.9	26.0	32.6	1.00	.32	.07
Other	16.3	17.3	15.1	0.17	.68	.03
5. The most convenient tutoring time for me is						
right after school	43.7	45.2	41.9	0.21	.65	.03
during the evening	16.3	14.4	18.6	.60	.44	.06
on weekends	15.3	8.7	23.3	7.76	.01	.20
at lunchtime	23.2	19.2	27.9	1.99	.16	.10
before school	23.7	26.9	19.8	1.33	.25	.08
Other	14.7	13.5	16.3	0.30	.59	.04
6. If I told friends I was going to get tutoring, they would						
make fun of me	28.9	21.2	38.4	6.79	.01	.19
try to talk me out of it	20.0	17.3	23.3	1.04	.31	.07
suggest I drop the course	17.9	11.5	25.6	6.32	.01	.18
encourage my efforts	44.7	52.9	34.9	6.17	.01	.18
Other	24.7	28.8	19.8	2.08	.15	.11
7. If I told my parents that I was going to get tutoring, they would						
suggest that I drop the course	6.8	4.8	9.3	1.49	.22	.09
encourage my efforts	66.3	69.2	62.8	0.87	.35	.07

TUTORING AND STUDENT VOICE

Table 1, Continued

allow me to make the decision	52.6	57.7	46.5	2.36	.12	.11
question if I really needed help	23.2	19.2	27.9	1.99	.16	.10
Other	8.9	12.5	4.7	3.56	.06	.14
8. The reasons I would seek a tutor are						
poor listening habits during class	25.3	22.1	29.1	1.21	.27	.08
excessive absences from the class	22.1	23.1	20.9	0.13	.72	.03
hard to focus because of disruptions	35.8	40.4	30.2	2.11	.15	.11
my teacher does not explain materials well	45.8	49.0	41.9	0.98	.32	.07
trouble with reading or remembering	37.9	43.3	31.4	2.82	.09	.12
not passing a section of the state test	27.4	27.9	26.7	0.03	.86	.01
Other	15.8	17.3	14.0	0.40	.53	.05
9. If I were to seek help, I would prefer						
a small group type setting	27.4	27.9	26.7	0.03	.86	.01
one on one with the tutor	61.1	65.4	55.8	1.81	.18	.10
computer program or online support	28.4	27.9	29.1	0.03	.86	.01
video lessons to watch and repeat	15.3	14.4	16.3	0.13	.72	.03
Other	7.4	6.7	8.1	0.14	.71	.03
10. If a subject is difficult to understand, I						
ask the teacher questions	61.1	58.7	64.0	0.56	.46	.05
meet with my counselor	5.3	4.8	5.8	0.10	.76	.02
ask classmates or friends for help	71.1	76.9	64.0	3.85	.05	.14
seek no help even though I may fail	16.3	16.3	16.3	0.00	.99	.001
Other	9.5	12.5	5.8	2.45	.12	.11
11. When I request tutoring, my teacher(s)						
arrange for assistance without delay	40.0	39.4	40.7	0.03	.86	.01
put me off and ignore my request	13.2	14.4	11.6	0.32	.57	.04
suggest checking with a counselor	20.0	16.3	24.4	1.92	.17	.10
tell me I should try harder	24.7	26.9	22.1	0.59	.44	.06
Other	20.5	21.2	19.8	0.06	.81	.02
12. I prefer a tutor to be						
my teacher whose class I am struggling in	43.7	44.2	43.0	0.03	.87	.01
another teacher in the same subject area	22.6	25.0	19.8	0.74	.39	.06
someone from a tutoring company	22.1	26.0	17.4	1.98	.16	.10
classmates who know the subject	34.7	32.7	37.2	0.42	.52	.05
Other	12.1	13.5	10.5	0.40	.53	.05

Table 1, Continued

13. My school should let students know about tutoring						
at orientation and in the handbook	42.6	45.2	39.5	0.62	.43	.06
on the school web site	50.0	47.1	53.5	0.77	.38	.06
on daily announcements	53.7	59.6	46.5	3.25	.07	.13
Other	15.8	19.2	11.6	2.05	.15	.10
14. The subject(s) in which I am most likely to seek tutoring are						
Mathematics	38.4	48.1	26.7	9.06	.003	.22
English	24.7	17.3	33.7	6.81	.01	.19
Science	23.7	33.7	11.6	12.64	<.001	.26
Social Studies	19.5	25.0	12.8	4.48	.03	.15
Other	27.4	22.1	33.7	3.19	.07	.13
15. Students should receive school reports showing						
group progress of students who receive tutoring	41.6	39.4	44.2	0.44	.51	.05
gains by tutored students in specific subjects	49.5	47.1	52.3	0.51	.48	.05
number of dropouts and if they had tutoring	18.4	17.3	19.8	0.19	.66	.03
comments by students about their tutoring experience	45.8	48.1	43.0	0.48	.49	.05
Other	9.5	10.6	8.1	0.33	.57	.04
16. I am willing to volunteer as a tutor						
in the subjects I understand well	60.0	70.2	47.7	9.95	.002	.23
to help students from families who do not speak English	18.9	22.1	15.1	1.50	.22	.09
to help students with learning disabilities	31.1	43.3	16.3	16.02	<.001	.29
for classmates in my cooperative learning group	34.7	37.5	31.4	0.77	.38	.06
Other	12.6	9.6	16.3	1.89	.17	.10

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Results

Overall Findings: Students, Teachers, and Parents

Table 1 provides overall responses for the 16 items of the Tutoring Poll. Some findings highlight the relative influence of peers and teachers as well as a need to overcome problems together. For example, in Item 10, 71.1% of students reported that, if a subject was difficult, they would ask classmates or friends for help; students less often asked teachers for assistance (61.1%). This student preference for sources of guidance should caution teachers to realize that they may overlook some problems students face. In this context, nearly half of the students thought that their teachers did not explain lessons well (Item 8, 45.8%). Furthermore, students complained that it was difficult to stay focused because of so many disruptions; this is a classroom management issue for teachers (Item 8, 35.8%).

According to the students, classmates who fail a course or test required for graduation should automatically be assigned a tutor (Item 4, 42.6%), go to summer school (38.9%), take monthly practice tests (34.2%), or access a computer program for help (28.9%). Most of the students who needed tutoring were observed by peers to feel embarrassed (Item 1, 55.3%), or denied their problem (41.1%). Students believed that peers with deficits would seek tutoring if they cared more about their success (Item 2, 66.8%). This assumption could mask conditions that might be attached to student reluctance. For example, if requesting tutoring threatens personal status in a class or clique group, the desire for group approval could motivate a decision to avoid tutoring. Development of a peer group norm that favors tutoring could be a key to persuading reluctant students.

Most students expressed willingness to tutor classmates in subjects they understood well (Item 16, 60%). This concern for others is commendable and deserves school recognition. Students felt that they should be provided reports showing anonymous progress of peers who have been tutored (Item 15, 41.6%), gains made in specific subjects (49.5%), and testimonials about worthwhileness of the tutoring experience (45.8%).

Parents were seen as an important source of support for tutoring. More students would seek tutoring if their parents were aware that they needed it (Item 2, 38.9%). A majority of students felt that parents would encourage tutoring (Item 7, 66.3%) and allow adolescents to decide themselves (52.6%). These impressions reflect parent trust and respect for the judgment of their children.

There were three poll items where the option to type in “other” exceeded 20%. On Item 6 (24.7%), for example, the “other” responses by students included: “If I told friends I was going to request tutoring, they would...try to

help; be surprised; laugh at me; I would not tell friends who would make fun of me; they wouldn't care; they wouldn't encourage or discourage me." On Item 11 (20.5%), the "other" responses by students included: "When I request tutoring, my teacher(s)...I never ask; they look at me with surprise; I don't need tutoring; single me out and make me feel stupid; laugh at my shamefulness." Item 14 (27.4%) continued with similar responses: "The subject(s) in which I am most likely to seek tutoring are...maybe Spanish; I am a straight A student; I am an honor student and don't need any tutoring; ...also, there were mostly comments indicating that they did not need tutoring."

Gender Differences

Chi-square independence tests compared male and female responses on all options for the 16 items (see Table 1). Results indicated female students were more likely than males to consider seeking tutoring if it is more available with small effect size, $\chi^2(1) = 5.25$, $p = .02$, Cramer's V effect size = .17, and they believed it shows a recognition of needs for help with small effect size, $\chi^2(1) = 4.10$, $p = .04$, Cramer's V effect size = .15. Peer support was different for female and male students. While female students were more likely to encourage friends to seek tutoring as needed, $\chi^2(1) = 6.17$, $p = .01$, Cramer's V effect size = .18, small effect size, male students were more likely to make fun of friends who sought tutoring or suggest their friends drop the course, both with small effect size, $\chi^2(1) = 6.79$, $p = .01$, Cramer's V effect size = .19; $\chi^2(1) = 6.32$, $p = .01$, Cramer's V effect size = .18, respectively. When a subject was difficult, female students were more likely to ask classmates or friends for help with small effect size, $\chi^2(1) = 3.85$, $p = .05$, Cramer's V effect size = .14.

In addition, the subjects in which to seek tutoring were different for female and male students. Female students were more likely to struggle in mathematics, science, and social studies, while male students were more likely to need tutoring in English, $\chi^2(1) = 9.06$, $p = .003$, moderate Cramer's V effect size = .22; $\chi^2(1) = 12.64$, $p < .001$, moderate Cramer's V effect size = .26; $\chi^2(1) = 4.48$, $p = .03$, small Cramer's V effect size = .15; $\chi^2(1) = 6.81$, $p = .01$, small Cramer's V effect size = .19, respectively. Finally, female students showed greater willingness to volunteer as a tutor for subjects they understand well or help students with learning disabilities, both with moderate effect size, $\chi^2(1) = 9.95$, $p = .002$, Cramer's V effect size = .23; $\chi^2(1) = 16.02$, $p < .001$, Cramer's V effect size = .29, respectively.

Discussion

Student Acknowledgment of Deficits

All students should periodically be reminded that academic difficulties caused by lack of comprehension can usually be overcome with tutoring. The purposes for tutoring are to detect errors through observation, identify methods to correct mistakes, arrange for guided practice, and monitor performance to support progress and provide feedback about achievement (Strom & Strom, 2016). Relatives and friends should recognize the importance of encouragement, admitting personal setbacks, resolving to overcome obstacles, and identifying attitudes and behaviors that require correction. These examples build resilience that can enable the confidence students need to view future challenges as opportunities. When parents and teachers try to protect students from exposure to the stress of adversity, these efforts can often have the unintended effect of rendering someone less capable of managing unforeseen challenges that inevitably will be experienced by everyone. Researchers agree that resilience requires some exposure to risk (Damour, 2019; Southwick & Charney, 2018).

Denial of academic deficits by students can sometimes reflect misleading evaluation practices (Rey, 2019). During the early 2000s, evidence surfaced that many teachers held low expectations of students yet gave uniformly high report card grades, regardless of performance. Grade inflation has become an obstacle to achievement at all grade levels (Buckley et al., 2018). This misleading practice poses a serious risk because it masks learning deficits, condones poor performance, and promotes unwarranted self-confidence (Strom & Strom, 2016, 2021). Some middle school students assume that, even when they do not understand a particular lesson or curriculum subject, their high report card grades imply they do not need tutoring. In such cases, parents are also unaware of a need for tutoring because they rely on grades to govern their judgment on student progress and whether tutoring assistance should be requested.

Reactions of Friends

Friends can be powerful sources of influence and motivation to participate in tutoring. Nearly half the students were fortunate to have friends who wanted them to succeed and viewed tutoring as the best path to academic improvement. Other students indicated that if they sought tutoring, friends would make fun of them or try to talk them out of it. Parents of early adolescents should know most students will do what is necessary to avoid being teased or socially rejected by classmates. Any behaviors that draw peer attention as being different from the group are shunned by most students in middle school.

Social networking dominates relationships in adolescence (Turkle, 2017; Twenge, 2017). This means a major obligation for schools is to discover ways to use this forum as a favorable context to build and support healthy norms of student perception about tutoring. Teachers can contribute to favorable peer influence by encouraging students to think about the meaning of friendships (Strom et al., 2019). One definition of friendship is to always look out for the best interests of someone we care about, share feelings and advice with that individual, and make suggestions intended to support growth and satisfaction. Thinking about friendships in these ways means a friend would be in favor of encouraging tutoring to raise achievement (Strom & Strom, 2021).

Reactions of Parents

During adolescence peers usually replace parents as the dominant source of socialization (Anderson & Jiang, 2018). Nevertheless, parents continue to be an important source of guidance, particularly about decisions related to personal well-being. The common observation in the poll that parents would encourage tutoring and allow students to make their own decisions about the need for help are supportive conditions (Bachman et al., 2021; Sanford, 2020).

Parents should be aware that peer tutoring generally results in higher achievement and better self-impression for both parties (Johnson & Johnson, 2017). In addition, more than other activities in school, peer tutoring involves students in responsible tasks on behalf of others. This maturity benefit appeals to many parents who recognize the danger of their children becoming self-centered and lacking empathy. Parents want to support experiences that add to emotional development and maturity (Bachman et al., 2021). By becoming peer tutors, adolescents practice human relations skills and leadership qualities that define success in broader terms than academic performance.

Need for Teacher Improvement

Student disappointment with how well teachers explained materials was an important outcome of the poll. Educators are generally surprised if students believe their instruction is difficult to understand (Strom & Strom, 2016). Asking students to raise their hand if they do not understand a concept brings embarrassment that everyone wants to avoid. More practical solutions are needed. For example, a one-time demonstration regarding solving a math problem is commonly insufficient. Teachers could video their presentations of concepts that students find difficult and post demonstrations on the school learning management system. Another option for teachers is to use the videos posted on Khan Academy and place links to the site on Canvas or Blackboard for student access. For homework, students can review the video sequence of

steps required in a problem-solving process multiple times, pause as needed, eventually comprehend, and avoid embarrassment.

Additional reasons cited for wanting tutoring help related to adverse conditions in class. For example, disruption by students seated near them presented noise and distraction. This kind of setting diminishes the ability to pay attention. Trying to read and remember was difficult when also trying to screen out distractions. Poor listening habits limited understanding of teacher instruction and working in cooperative learning teams. Teachers should have discussions with students about consequences of poor study habits and the benefits of reflective thinking (Jackson, 2018). There is also a need for teachers to acknowledge that they will try to improve study conditions for the students in class.

Reasons to Seek Help

What does it mean for a student to seek tutoring? A majority reported it is recognition of a need for help. Others saw it as necessary to meet graduation requirements. Tutoring was also viewed as reflecting personal motivation to learn. Two-thirds of students felt that more peers would seek tutoring if they cared about academic success. This impression underscores a need for greater encouragement from peers. For students who requested tutoring, teacher responses were mostly favorable and prompt although some faculty suggested overcoming deficiencies meant that a student needed to try harder.

About one-fourth of the students reported they were most likely to seek tutoring in mathematics, science, English, and social studies. A majority favored one-to-one assistance with less motivation for tutoring in small groups or going online. Most students would like the teacher in whose class they are struggling to tutor them or classmates who understand the subject. There was little interest in assistance from a private tutoring company.

When students experienced difficulty, they generally turned to their peers for help. These results reinforce the importance of peer teaching that should be endorsed as an essential aspect of cooperative learning (Kim & Maloney, 2020). Preparation for peer teaching should be a goal in middle school along with recognition of students who provide this valuable service to classmates (Tompkins, 2018).

Reporting Tutoring Results to Students

A persuasive way to convince reluctant students to participate in tutoring is to inform the entire school about existing services along with evidence of their effectiveness. Schools typically report to stakeholders about student achievement, but few report success of tutoring practices that could motivate greater involvement and improve the quality of the program. Most schools do not

evaluate tutoring programs so there are no outcomes to disseminate. Reporting results of tutoring should become a goal to include in the school continuous improvement plan (Sanford, 2020).

Peers can be a strong influence in developing favorable attitudes about achievement and tutoring (Levine, 2020). Students indicated they wanted to be informed about how their peers achieved in the school tutoring program. Recordkeeping of student progress is an important aspect of tutoring. When students are aware of gains that tutored students make in particular subjects, they are motivated to participate themselves and encourage peers. Tutoring reports should include achievement progress for dissemination to students, teachers, parents, the school board, and other stakeholders who could motivate early adolescents to appreciate tutoring. Tutoring efforts should include training for student tutors, assessment of results, and determination of how this potentially valuable support system can become more effective (Bachman et al., 2021; Sanford, 2020).

Gender Differences and Cooperative Learning

The gender findings suggest faculty should take advantage of female student leadership to motivate peer norms that support tutoring (Strom et al., 2019). Each cooperative team in a classroom should include both female and male students to support the possibility that peer tutoring becomes more prominent. These recommendations are reinforced in a study by Malone (2018) who sought to identify characteristics of high performing groups. Participants were 700 men and women working in teams. The first characteristic identified was the average social perceptiveness of a team. Individuals able to read facial signs performed significantly better; students looking at peers during a cooperative learning discussion helps to make correct inferences. On average, females scored higher than males on a social perceptiveness measure.

A second characteristic was that the collective intelligence of a high performing group correlated with the percentage of females on a team. Having more females was correlated with being a more intelligent group. Malone (2018) suggested that the way to form an intelligent group is by including people who score high on social perceptiveness, regardless of gender. Learning social skills is easier when teammates already possess them and can model desired behaviors. These findings urge mixed gender cooperative learning teams, underscore students' need to acquire social perceptiveness, and recognize the potential of female leadership.

School District Considerations

The 14,000 public school districts throughout the United States serve some students with academic deficits (Shul, 2019). Leaders in every district should

consider ways to improve current tutoring practices. Five considerations are proposed for reflection and discussion.

1. Studies have confirmed that students exposed to effective tutoring demonstrate greater comprehension, enhanced interest in attending school, attain higher test scores, gain persistence, and become more confident based on feedback about their progress (Exley, 2020; Johnson & Johnson, 2017; Khan, 2020; Wexler, 2018). Accordingly, the orientation of middle school students and their parents should emphasize that tutoring does not imply a person is incapable; rather, the tutoring goal is to enable students of every ability level to maximize achievement.

2. A common school practice is to inform the general public about aspects of student achievement. However, the outcomes of tutoring programs are rarely reported. Merrett (2017) points out some students who are reluctant to request tutoring could benefit from peer reports that explain how tutoring helped them with particular subjects. Such information could be an important source of student motivation and improve the effectiveness of tutoring programs.

3. In addition to peer tutors, every community has people who are willing to volunteer as tutors. School boards should consider a leadership role in recruiting tutors. Retirees have helped improve student achievement across the nation; these adult tutors benefit as well as the students they teach (American Association of Retired Persons, 2018; Tracey et al., 2014). Schools can also collaborate with universities by having teacher candidates serve as tutors as a part of university service learning requirements (Delacruz & Guerra, 2019).

4. School districts and families should set higher expectations for students. The amount of time American students typically devote to social media, texting, and phoning friends equates to the length of a typical workday for their parents (Anderson & Jiang, 2018; Turkle, 2017; Twenge, 2017). The parent–teacher partnership should become a more active source of support focusing on improvement of student time management habits, as well as monitoring their progress in the tutoring program (Bachman et al., 2021).

5. Tutoring should not be limited to students who perform below a standard. Consider Oxford and Cambridge Universities in England where students represent the top 2% of achievers in the countries from which they are drawn. These students attend once or twice weekly tutorials. The rationale for this long-standing practice is that everyone, no matter how intelligent, can learn more when personal limitations are detected and overcome. Tutoring increases knowledge and competence, encourages humility, and contributes to collaborative teamwork skills needed in most occupations (Fitzgerald & Ianetta, 2015).

Study Limitations

Student views regarding tutoring practices were used by the continuous improvement planning committee at the school where poll results were obtained. Findings are not intended to generalize to any other school within the same district or elsewhere. Students enrolled in special education were not identified as a subpopulation for separate data analysis. Having such information could provide insights for school improvement committees and will be proposed to principals in future polling projects.

Conclusion

Teachers of all grades struggle to provide individual tutoring, allow students of different achievement levels to progress at their own pace, and arrange for a balance between competition and working in cooperative teams. Tutoring by teachers, classmates, and online sources such as the Khan Academy can contribute to achieving these goals. For students who receive tutoring, common gains are usually greater interest in school, better test scores, increased persistence for difficult tasks, and greater self-confidence. For peer tutors, the activity is a chance to help others and gain recognition. Tutoring fosters healthy attitudes and social skills that can be used throughout life (Khan, 2020; Levine, 2020; Sanford, 2020).

A common referral to student–teacher ratio as being an index of instructional quality is misleading. This concept ignores the important tutoring and teaching students can provide in cooperative learning teams and obtain from resources on the internet. The teacher role shifts when students become willing to assume greater responsibility for peer teaching. This shift recognizes more individual attention is required for instruction than can be provided by faculty. Therefore, a key to personalized instruction is more people capable and willing to help. The school goal of interdependence is also more likely to be attained when there is reliance on peer tutoring than when all students have to depend on the adult teacher as their only source of instruction.

There is much to be learned about how tutoring can become more prominent during an era of increasing peer influence and access to the internet. When grade inflation exists, student deficits can go undetected and tutoring needs are overlooked. Schools should have a remedial support team to offer tutoring and evaluate outcomes. The rationale for this practice is that everyone learns more when personal limitations are detected, tutoring increases the scope of knowledge and competence, and establishes teamwork skills needed for job success. At this school, student female leadership can be a good resource to motivate a norm that favors peer tutoring.

Polling students is meant to assess their opinions at a single school in keeping with federal guidelines to devise and maintain a continuous improvement plan. This deliberately narrow population for assessment ensures that poll outcomes will have local relevance, can motivate stakeholder involvement, and provide data to guide decision-making. Inviting student voice for making judgments about school improvement should take place at the campus level. This practice places accountability for local reform with the principal. Every community faces the daunting tasks of helping students, teachers, and parents realize that tutoring is a greater need than commonly supposed and listening to student voice can provide insights about ways to improve school achievement.

A promising source of future support for student tutoring is the formation of an innovative nonprofit organization called Accelerate. This national leadership effort, announced April 5, 2022, will receive initial funding from The Bill and Melinda Gates Foundation, Arnold Ventures, and Overdeck Family Foundation. Goals of the K–12 local, state, and national education project are to identify evidence-based tutoring models and establish tutoring as a permanent part of the nation’s public education system. This school initiative should consider the assessment of student and parent attitudes about tutoring and finding ways to improve conditions of learning. Teacher training is also implicated so educators will recognize the importance of collaboration among faculty, parents, and students (Accelerate, 2022).

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